

# Detection of Financial Reporting Fraud: The Case of Socially Responsible Firms

Dedik Nur Triyanto

Telkom University, Bandung, West Java, Indonesia

## ARTICLE INFO

### Article history:

Received 3 August 2019

Revised 6 March 2020

Accepted 11 March 2020

### JEL Classification:

M41, O16, G14

### Key words:

Financial fraud, Fraud Pentagon,  
Socially responsible firms

### DOI:

10.14414/jebav.v22i3.1792

## ABSTRACT

This study aims to analyze the implementation of fraud pentagon theory, covering pressure, opportunity, rationalization, competence, and arrogance variables on financial statement fraud using the Beneish M-score method for socially responsible companies listed in the SRI-KEHATI index of the Indonesia Stock Exchange in the period 2013-2018. The secondary data were taken from the annual reports and audited financial statements of companies. The sample was selected using a purposive sampling in which 13 SRI-KEHATI index companies as the sample with a four-year research period in 2013-2018, a totally of 78 samples. The data were analyzed using descriptive statistical analysis and logistic regression analysis using IBM SPSS statistical software 25. The results showed financial targets, ineffective monitoring, and the nature of the industry, changes in directors, and the frequency of the appearance of CEO photos simultaneously influencing financial statement fraud. Partially, ineffective monitoring, changes in directors and the frequency of CEO photos on fraudulent financial statements have a negative effect, and the nature of the industry has a positive effect, while financial targets do not affect financial statement fraud. This research can be used as a reference for stakeholders in the company to consider the proportion of independent directors and the ratio of receivables in detecting fraud in a company.

## ABSTRAK

Penelitian ini bertujuan untuk menganalisis implementasi dari teori fraud pentagon yaitu variabel tekanan, kesempatan, rasionalisasi, kompetensi, dan arogansi terhadap kecurangan laporan keuangan dengan menggunakan metode Beneish M-score pada perusahaan yang bertanggungjawab social yang terdaftar dalam indeks SRI-KEHATI Bursa Efek Indonesia periode 2013-2018. Data sekunder penelitian ini berupa laporan tahunan dan laporan keuangan audited perusahaan yang dijadikan sampel penelitian. Sampel diambil dengan menggunakan purposive sampling sehingga diperoleh 13 perusahaan indeks SRI-KEHATI dengan periode penelitian empat tahun yaitu pada 2013-2018 atau dengan kata lain terdapat 78 sampel dalam penelitian ini. Data dianalisis dengan analisis statistik deskriptif dan analisis regresi logistik dengan menggunakan software IBM SPSS statistik 25. Hasilnya menunjukkan financial target, ineffective monitoring, nature of industry, perubahan direksi dan frekuensi kemunculan foto CEO berpengaruh secara simultan terhadap kecurangan laporan keuangan. Secara parsial ineffective monitoring, perubahan direksi dan frekuensi kemunculan foto CEO terhadap kecurangan laporan keuangan berpengaruh negatif dan nature of industry berpengaruh secara positif, sedangkan financial target tidak berpengaruh terhadap kecurangan laporan keuangan. Penelitian ini dapat dijadikan acuan bagi pemangku kepentingan yang ada di perusahaan untuk mempertimbangkan jumlah proporsi dewan komisaris independen dan mempertimbangkan rasio persediaan dalam mendeteksi adanya kecurangan dalam suatu perusahaan.

## 1. INTRODUCTION

Fraud is an act that aims to obtain personal gain by breaking the law. The Association Certified Fraud

Examiner (ACFE) in the 2016 Report to the Nations on Occupational Fraud and Abuse states that in 2016 there was an increase in financial statement fraud of

\* Corresponding author, email address: dedik.triyanto@gmail.com

9.6% compared to 2014 which was only 9.0% (Association of Certified Fraud Examiners, 2018). Yet, other fraud such as asset misappropriation by 10% and corruption also occurred in the same year by 15% (James, 2016). The motives in fraudulent financial reporting tend to be triggered by five factors called fraud pentagon, namely pressure, opportunity, rationalization, competence, and arrogance (Jonathan, 2011; Skousen, Smith, & Wright, 2009).

A case of fraudulent financial reporting— as indicated— occurred at PT Timah (Persero) Tbk, where the Timah Employees Association (Ikatan Karyawan Timah) assessed that directors had done a lot of public lying by doing press-release of financial statements for the first half of 2015 saying that efficiency and strategy had performed positively. In the first semester of 2015, the operating profit was, in fact, Rp 59 billion (Dedy, 2016). This indicates the directors' inability to manage their financial condition is also supported by the results of calculations using the Beneish M-score Model in PT Timah's financial statements which showed a figure greater than -2.22 which is three years during this research year.

Another case can be found on CNN Indonesia's news which reports that PT Bank Mandiri Syariah (BSM), a subsidiary of PT Bank Mandiri (Persero) Tbk, is known to have committed fictitious funds of Rp 1.1 Trillion. The Indonesian Anti-Corruption Society (MAKI) has submitted its allegations to the Attorney General's Office. MAKI explained that if BSM loses, PT Bank Mandiri (Persero) Tbk as the majority shareholder must provide additional capital as a backup to BSM. This indicates BSM is taking advantage of additional funding opportunities from PT Bank Mandiri (Persero) as the parent company (Yuli, 2018).

The pressure is an impulse that arises because of a need or greed of financial problem. Some risk factors related to the pressure on fraud are excessive pressure for management to meet the expectations (targets) of third parties (Maria Ulfah, Nuraina, & Wijaya, 2017). Pressure can improve performance and become motivation, but on the contrary, it can be a factor in fraud. In this study, the pressure is represented by financial targets which are proxied by profitability (Rezaee, 2005). Profitability describes the company's ability to generate profits. The results of research conducted by Bawekes, Simanjuntak, & Daat (2018) show that financial targets have a negative effect on fraudulent financial reporting. However, research conducted by Ulfah, Nuraina, & Wijaya (2017) found that financial

targets had no effect on fraudulent financial reporting.

Opportunity is one of the driving factors in the fraud triangle theory (Dellaportas, 2013). Opportunity is a condition where a person can take actions that allow fraud; besides the perpetrators of fraud also believe their actions will not be detected. Opportunities can occur due to the weak assertion of sanctions and the inability to assess the quality of performance (Karyono, 2013). In this study, the opportunity is proxied by ineffective monitoring and calculated by the ratio of independent commissioners to the board of commissioners (Ghazali, Rahim, Ali, & Abidin, 2014; Rezaee, 2005). The results of research conducted by Setiawati & Baningrum (2018) show that ineffective monitoring of opportunity does not affect fraudulent financial reporting. However, Yossi & Handayani (2018) and Uzun, Szewczyk, & Varma (2004) show that effective monitoring significantly reduces fraudulent on financial reporting.

Rationalization is the attitude of justification for acts of fraud that have been done based on someone's justification, meaning that the act is not a violation (Murphy & Dacin, 2011). The results of the study conducted by Ulfah et al. (2017) shows that the rationalization factor has a significant effect on fraud in financial reports. However, research conducted by Akbar (2017) shows a different result, stating that the rationalization factor does not affect the fraudulent financial reporting.

Competence which was first introduced by Jonathan (2011) is an additional concept theory called fraud pentagon. Competence is an individual's ability in a company to allow committing fraud. This competence can be in the form of one's position or function in the organization, in this case, the position of CEO, directors or heads of other organizational functions (Siddiq, Achyani, & Zulfikar, 2017). The result of research on the influence of competence on fraudulent financial reporting conducted by Siddiq et al. (2017) shows that competence has a significant effect. However, research conducted by Setiawati & Baningrum (2018) shows that competence has no effect on fraud on financial statements.

The last factor in fraud pentagon is arrogance. Arrogance is a manager felling of superiority so he assumes that internal control and policies do not apply to him (Dellaportas, 2013). Arrogance can trigger financial statement fraud by utilizing its authority. This is consistent with the results of research conducted by Bawekes et al. (2018) and Dellaportas (2013), which shows a positive and

significant effect of arrogance on the occurrence of fraudulent financial reporting. Different results can be seen in the results of research conducted by Akbar (2017) showing that the arrogance factor does not have a significant effect on the occurrence of fraudulent financial reporting.

Fraud can occur because of pressure from either internal or external parties. The opportunity created to commit fraud and the justifications for the act committed is related to the arrogance that the fraud perpetrators have. Undetected fraud can be a problem that harms many parties. Suppressing the practice of fraud may be done by early detection. This can be done by using the Beneish M-Score model that is quite effective for detecting fraud with an accuracy level of 76% of the sample companies manipulating their financial statements (Triyanto, 2019). Beneish M-score model is an equation based on eight variables and can be seen in financial statements, namely Days Sales in Receivables Index, Gross Margin Index, Asset Quality Index, Sales Growth Index, Depreciation Index, Sales General and Administrative Expenses Index, Leverage Index, Total Accruals to Total Assets (Kamal, Ezrien, Salleh, Fairuz, & Ahmad, 2016); Nurmulina & Sasongko, 2018).

Based on the previous phenomena and studies with their inconsistent results, this study aims to, firstly, find out how pressures, opportunities, rationalization, competence, arrogance and report fraud; secondly, to see the simultaneous effect of pressure, opportunity, rationalization, competence and arrogance on fraudulent financial statements in companies; and thirdly, to find out partially effect of pressures, opportunities, rationalization, competence and arrogance on financial statement fraud.

## **2. THEORETICAL FRAMEWORK AND HYPOTHESES**

### **Fraudulent Financial Reporting**

One of the tools to detect fraudulent financial reporting is the Beneish M-Score Model calculation introduced by Beneish. It is a measure that shows quantitative differences between companies that manipulate financial statements and companies that do not (Beneish et al., 2014). The Beneish M-Score Model has an accuracy rate of 76% and detects more fraud compared to other measuring instruments (Aghghaleh, Shabnam, & Muhammad, 2016).

The calculation component of the Beneish M-Score Model includes eight variables that are significant for predicting manipulation in the financial statements, namely the Days Sales in

Receivables Index (DSRI), by calculating changes in receivables to sales. Then, it deals with Gross Margin Index (GMI), which calculates changes in the index of the company's gross profit. Asset Quality Index (AQI) also calculates the index of the proportion of total assets with less potential future benefits. Another one is the Sales Growth Index (SGI) that calculates changes in sales. Depreciation Index (DEPI) also calculates changes in the amount of depreciation that a company has. The Sales General and Administrative Expenses Index (SGAI) calculate changes in sales, general and administrative expenses to sales. Leverage Index (LVGI) which calculates changes in all liabilities to assets in a company. Total Accruals to Total Assets (TATA) calculates the number of accruals to total assets in the study year. Beneish M-Score Model is the sum of the eight components. The company can be said to commit fraud if the result of the Beneish M-Score Model calculation on the company is higher than -2.22. If so, the calculation of M-score model can be developed (Kamal, Ezrien, Salleh, Fairuz, & Ahmad, 2016); Nurmulina & Sasongko, 2018).

Pressure, opportunity, rationalization, opportunity, and arrogance can affect a person to commit fraud (Hidayah & Saptarini, 2019). This study is consistent with other previous studies related to fraudulent financial reporting, where fraudulent financial reporting simultaneously affects the pressure, opportunity, rationalization, competence, and arrogance (Triyanto, 2019). Based on such arguments, the hypothesis can be stated as follows.

**H1:** The fraudulent financial statements pressure, opportunity, rationalization, ability and arrogance factors simultaneously influence of companies that are members of SRI-Kehati Index

The pressure is one of the backgrounds to the occurrence of fraudulent financial statements. Situations where management or company employees are faced with bad financial conditions can be a special pressure for companies to commit fraud (Nurmulina & Sasongko, 2018). However, Yossi & Handayani (2018) explained that financial targets in the form of return on business that the company wants to achieve could be one measurement to assess the level of the company's ability to generate profits with its assets or Return on Assets (ROA). Bawekes et al. (2018) and Setiawati & Baningrum (2018) showed that the Financial Profit Proposed Target (ROA) had a negative effect on

fraud in financial statements. The next hypothesis can be stated as follows.

**H2:** Pressure that is proxied by financial targets (ROA) has a negative effect on fraudulent financial reporting in companies that are members of the SRI-Kehati Index

Opportunity is a situation where a person can commit fraud. Besides that, the perpetrators of fraud also believe that their actions will not be detected (Ulfah et al., 2017). Opportunities to commit fraud can occur due to weak supervision. According to Sihombing & Rahardjo (2014), the existence of an independent commissioner would assure that company supervision would be more independent and objective and far from the intervention of certain parties. SAS NO.99 mentions ineffective monitoring can occur due to the management's dominance such as by one person or small group, ineffective supervision of the board of directors, and audit committee over the financial reporting process and internal control and the like (Skousen, Smith, & Wright, 2009).

A study by Yossi & Handayani (2018) and Uzun et al. (2004) found that the proportion of independent commissioners indicates a negative effect on fraudulent financial reporting. The result of their study is supported by research conducted by Nurmulina & Sasongko (2018), which concludes that opportunities proxied by ineffective monitoring also negatively affect fraudulent financial reporting. This explains that effective supervision has the potential to reduce the opportunity for fraud. In other words, the opportunity proxied by ineffective monitoring (BDOUT) has a negative effect on fraudulent financial reporting.

**H3:** Opportunities that are proxied by the proportion of independent commissioners (BDOUT) have a negative effect on fraudulent financial reporting in companies that are members of the SRI-Kehati Index

Rationalization is the attitude of justification for acts of fraud that have been committed by someone. Justification occurs because someone is looking for justification for actions that contain fraud. People who commit fraud believe or feel that their actions are not fraud, but something that is indeed their right (Siddiq et al., 2017). The rationalization in this research is proxied by the nature of the industry or the company where they want to show an ideal situation, namely with excellent performance such

as increased sales, even with sales on credit. Uncollectible receivables are one of the accounts determined by the company based on an estimate, the determination of uncollectible accounts based on a subjective assessment in estimating uncollectible receivables. The uncollectible accounts are the main focus of management who will do fraudulent financial reporting by eliminating credit sales through uncollectible accounts. This research was conducted to predict the rationalization of having a positive effect on financial statement fraud. Kamal et al. (2016) and Nurmulina & Sasongko (2018) found that the rationalization proved to have a positive influence on financial reporting fraud.

**H4:** Rationalization which is proxied by the nature of the industry (RECEIVABLE) has a positive effect on fraudulent financial reporting in companies that are members of the SRI-Kehati Index

Competence is referred to as a person's ability in a company to provide opportunities for committing fraud. This competence can be in the form of one's position or function in the organization which can also be the background driving to fraud and concluding that change in directors can indicate the case of fraud (Triyanto, 2019). Change in directors is one of the factors driving the occurrence of fraudulent financial statements. Changing the company's organizational structure or recruiting new directors whose more knowledge is considered capable of doing things that are more profitable for the company than the previous directors (Siddiq et al., 2017). The results of his research showed that the change of directors had a positive effect on financial statement fraud. The same research results also examined by Yossi & Handayani (2018) explained that the change of directors had a positive effect on fraudulent financial reporting. Therefore, the hypothesis can be stated as follows.

**H5:** Competence which is proxied by a change in directors has a positive effect on fraudulent financial reporting in companies that are members of the SRI-Kehati Index

Arrogance is the trait of superiority over the rights held and a feeling that internal controls and policies do not apply to him. An arrogant person tends to expect praise from others and will boast and overestimate the achievements he achieved (Jonathan, 2011). Tessa & Harto (2016) research explains that CEOs tend to be more inclined to show

everyone—their status and position in the company— because they do not want to lose their status or position. Arrogance can trigger fraud by using and utilizing the authority they have. Bawekes et al. (2018). Dellaportas (2013), and Tessa & Harto (2016) show that the number of CEO photos has a positive and significant effect on fraudulent financial reports. The arrogance variable, which is proxied by the number of CEO photographs contained in an annual report has a significant influence on financial statement fraud. The result of this study is also supported by research by Siddiq et al. (2017) also shows that there is a positive effect of the number of CEO photos on fraudulent financial reporting. Therefore, the hypothesis can be stated as follows.

**H6:** The arrogance which is proxied by the frequency of CEO photos has a positive effect on fraudulent financial reporting in companies that are members of the SRI-Kehati Index

### 3. RESEARCH METHOD

#### Independent Variables and Dependent Variables

The independent variable of pressure is measured

using financial targets, calculated by Return on Assets (ROA) because financial targets are a risk of pressure on management for meeting the expectations of other parties Sasongko, Nurmulina, & Fernandez (2018) and Indriani and Terzaghi (2017), opportunities are measured using effective monitoring by calculating the percentage of the number of independent commissioners divided by the total board of commissioners (BDOUT) Siddiq et al. (2017) and Utami, Wijono, Noviyanti, & Mohamed (2019), rationalization is measured using the Nature of Industry total receivables ratio (RECEIVABLE) Rahmawati, Nazar, & Triyanto (2017) and Kassem & Higson (2012), competence was measured using a dummy variable if there is a change of directors given a number 1 whereas if there is no change of directors given a number 0 (DCHANGE) (DCHANGE) Triyanto (2019), Arrogance is calculated using the number of CEO photos that appear on annual report Triyanto (2019), while the dependent variable in this research is the fraudulent financial reporting measured using the Financial Statement Fraud Beneish M-Score Model (M-Score) dummy variable with the following formula:

$$DSRI = \frac{(Receivable/Sales)_t}{(Receivable/Sales)_{t-1}} \quad (1)$$

$$GMI = \frac{[(Sales-COGS)/Sales]_{t-1}}{[(Sales-COGS)/Sales]_t} \quad (2)$$

$$SGI = \frac{(Sales)_t}{(Sales)_{t-1}} \quad (3)$$

$$DEPI = \frac{[Depreciation/(Depreciation+PPE)]_{t-1}}{[Depreciation/(Depreciation+PPE)]_t} \quad (4)$$

$$SGAI = \frac{(SGA Expense/Sales)_t}{(SGA Expense/Sales)_{t-1}} \quad (5)$$

$$LVG = \frac{[(LTD+Current Liabilities)/Total Asset]_t}{[(LTD+Current Liabilities)/Total Asset]_{t-1}} \quad (6)$$

$$TAT = \frac{(Net Operating Income-Operating Cash Flow)_t}{(Total Asset)_{t-1}} \quad (7)$$

$$M - Score = -4,84 + 0,920xDSRI + 0,528xGMI + 0,404xAQI + 0,892xSGI + 0,115xDEPI - 0,172xSGAI - 0,327xLVGI + 4,697xTATA \quad (8)$$

The dependent variable is the fraudulent financial reporting measured using Beneish M-Score Model. It is the sum of the eight components. Companies can be said to commit fraud if the results of the Beneish M-Score Model calculation on the company is higher than -2.22 then it will be given a

number 1 whereas if the result of the sum is less than -2.22 it will be given a number 0.

#### Population and Sample

The research method is a scientific way to obtain data with the intended use (Sugiyono, 2016). Based

on research background, problem formulation, and theories that have been described, this research is categorized as quantitative research that is a method that produces conclusions by using statistical stages of measurement (Sujarweni, 2015). This research has a descriptive verification objective that explains and examines the influence of pentagon fraud as an independent variable and fraudulent financial statements as the dependent variable (testing the hypothesis) and is causal in nature, trying to find a causal relationship by observing the effects there is to look for factors that cause problems (Sekaran & Bougie, 2017).

The unit of analysis used is the group of non-financial social responsible firms listed on the SRI-Kehati index. In terms of the researchers' association with the unit of analysis, there is no data intervention on secondary data. Based on the time of the study, this study uses a panel data model. The panel data is a particular form which is a combination of time series data and cross-sections (Sujarweni, 2015).

The population in this study is all public companies listed on the SRI-Kehati Index for the 2013-2018 period. It uses non-probability sampling with the type of purposive sampling. According to Sujarweni (2015), non-probability sampling is a sampling technique that does not provide equal opportunity/opportunity for each element or member of the population to be selected as a sample. Purposive sampling is that sampling limited to certain types of people who can provide the desired information because either it is the only one or it fulfils several criteria determined by the researcher.

The sample was selected based on several criteria, namely public companies listed on the Indonesia Stock Exchange which consistently

entered the SRI-Kehati index in the 2013-2018 period. The non-financial public companies listed on the Indonesia Stock Exchange were listed on SRI-Kehati index for the 2013-2018 period, companies included in the SRI-Kehati index for the 2013-2018 period that presented research-related data. Based on the sample selection criteria, this study got a number of 13 sample companies, with a research period of 6 years for gaining 78 research data.

The total data used in this study were 78 data consisting of publicly listed companies included in the SRI-Kehati index during 2013-2018. In processing research data, the researchers used financial statements with rupiah and dollar exchange rates, the researchers, therefore, converted the dollar to rupiah based on the Bank Indonesia rate described in the Notes to Financial Statements. The total data was 78 data consisting of publicly listed companies on the SRI-Kehati index during 2013-2018. The data were financial statements with rupiah and dollar exchange rates, the researchers, therefore, convert the dollar to rupiah based on the Indonesian Bank exchange rate described in the Notes of Financial Statements.

### Logistic Regression Analysis

This study used a logistic regression analysis because the dependent variable is fraudulent financial reporting which uses dummy variables. Logistic regression is an analytical technique for estimating results based on changes in the values of independent variables (Maria Ulfah et al., 2017), or to estimate the probability based on the value of each independent variable. The general form of the logistic regression equation, according to Ghozali (2013) is as follows:

$$\text{Ln} \frac{\text{fraud}}{1-\text{fraud}} = \beta_0 + \beta_1 \text{ROA} + \beta_2 \text{BDOUT} + \beta_3 \text{RECEIVABLE} + \beta_4 \text{DCHANGE} + \beta_5 \text{CEOPIC} + \varepsilon \quad (9)$$

Description:

FRAUD	= Fraudulent financial reporting
Ln	= Natural logarithm
$\beta_0$	= Coefficient of constant regression
$\beta_{0,1,2,3,4,5}$	= Regression coefficients of each proxy
ROA	= Comparison of profit after tax with total assets
BDOUT	= Comparison of the number of independent commissioners with the total number of commissioners.
RECEIVABLE	= Change of receivable ratio
DCHANGE	= Change of director
CEOPIC	= Frequency of CEO photos
$\varepsilon$	= Error

#### 4. DATA ANALYSIS AND DISCUSSION

Statistical analysis of descriptive variables with ratio scale variables for discussion is presented in Table 2. Table 2 shows the average ROA, BDOUT, and CEOPIC to measure pressure, opportunity, and arrogance variables on socially responsible companies listed in the SRI-KEHATI index are higher than the standard deviation. This means that the pressure, opportunity, and arrogance variance data has a grouped data distribution. In other words, the companies' ability in the SRI-KEHATI index is relatively equal and can reflect the average

ROA, BDOUT, and CEOPIC on the SRI-KEHATI index. On the contrary, the average RECEIVABLE to measure the rationalization variables in the companies listed in the SRI-KEHATI index is smaller than the standard deviation. It means that the data rationalization has varied data distribution; in other words, the ability of companies in the SRI-KEHATI index is not equal. It is due to the average sales of SRI-KEHATI index companies doing on credit vary. Therefore, there are companies that are indicated cheating, but some are not.

Table 2.  
Descriptive Statistics Variable Ratio

	N	Min	Max	Mean	Std. Dev.
ROA	65	0,0110	0,5430	0,1270	0,1240
BDOUT	65	0,2850	0,8000	0,4170	0,1370
RECEIVABLE	65	-0,1540	0,0620	-0,0020	0,0400
CEOPIC	65	1,0000	31,0000	15,0600	6,1300
Valid N	65				

Source: Analytical data

Table 2 shows the average ROA to measure the pressure variable on socially responsible companies listed in the SRI-KEHATI index of 0.127, higher than the standard deviation of 0.124. It means that the pressure variable data calculated by ROA has a grouped data distribution, in other words, the ability of companies that enter the SRI-KEHATI index is relatively equal and can reflect the average ROA on the SRI-KEHATI index. About 71% of SRI-KEHATI index data has a ROA value below the index average; it can indicate fraud because, with low ROA, the company will be pressured by the target.

The minimum value of ROA of 0.011 is owned by the TINS company in 2015 which means the level of net profit generated for each value in total assets is only 1.09 percent which can be said to be less profitable and potentially fraudulent, while for a maximum value of 54.36 Percent owned by the UNVR company in 2014 which means it is quite profitable.

The average proportion of independent commissioners to the board of commissioners (BDOUT) is to measure the opportunity variable. As based on Table 2 =, it is 0.417 that is greater than the standard deviation of 0.137, which shows that BDOUT in the SRI-KEHATI index tends not to vary. This is due to OJK regulations, namely OJK Regulation No.33 / POJK.04 / 2014, which stipulates that the minimum number of independent

commissioners is 30% of all members of the board of commissioners. The BDOUT average in SRI-KEHATI is 41% greater than existing regulations and reflects the data on the index.

The minimum opportunity variable value measured using BDOUT is 0.285, owned by SMGR companies from 2014 to 2017. It means that the monitoring function of the company is weak and tends to violate the OJK provisions regarding the proportion of independent commissioners and potentially has the opportunity to commit fraud. The maximum value of 0.800 owned by UNVR companies from 2013 to 2018 indicates that the monitoring function of the company during the research year is already good so that it has the opportunity to reduce the opportunity to commit fraud.

Still referring to Table 2, the rationalization variable, calculated using the receivables ratio (RECEIVABLE) has an average of -0.002. Thus, it is smaller than the standard deviation of 0.040. It means the average sales made by the SRI-KEHATI index company on credit are diverse. Therefore, there are companies that are indicated cheating, but some are not. The minimum value of the RECEIVABLE ratio of -0.154 owned by ADHI Company in 2014 showed that companies tended not to sell on credit and did not have the potential to commit fraud, while for a maximum value of 0.062 owned by PGAS companies in 2016, which means companies tended to sell on

credit and potential fraud.

Table 2 also shows the average frequency of CEO photo appearances (CEOPIC) in calculating the arrogance variable of 15.06 that is greater than the standard deviation of 6.13. It means the data tends to be grouped or not varied. This also means that the average CEOPIC in the SRI-KEHATI index company is around 15 photos. The minimum value of the arrogance variable calculated using CEOPIC has a minimum value of 1 owned by the AALI Company in 2013. It means that the company did not produce a lot of CEO photos in its annual report, while for a maximum value of 31 owned by an INDF company in 2015. It means that the companies tend to bring up

a lot of CEO photos in their annual reports and have the opportunity to commit fraud.

### Descriptive Statistics

A descriptive statistical analysis of nominal scale variables will be shown in Table 3. Table 3 shows that from 65 sample data, there were 45 (69.2%) samples that did a change of directors. There are 20 (30.8%) other samples did not make changes in directors. Thus, the results of the analysis show that the majority of companies in the SRI-KEHATI index make changes in directors during the research year. This shows that companies in the SRI-KEHATI index tend to be indicated fraud.

Table 3.  
Descriptive Statistics of Competence

		Frequency	Percent	Valid Percent	Cumul. Percent
Valid	No change	20	30.8	30.8	30.8
	Change of director	45	69.2	69.2	100.0
	Total	65	100.0	100.0	

Source: Analytical data

Table 4 shows that the frequency of companies indicated cheating on their financial statements is 14 data (21.5%), while companies that are not indicated committing financial reporting fraud is 51 data

(78.5%). Thus, the results of the analysis show that the majority of companies in the SRI-KEHATI index are not detected as committing financial statement fraud.

Table 4.  
Descriptive Statistics of Financial Fraud

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Non-Fraud	51	78.5	78.5	78.5
	Fraud	14	21.5	21.5	100.0
	Total	65	100.0	100.0	

Source: Analytical data

### Coefficient of Determination

Table 5 shows the Nagelkerke R Square value of 0.668. This can be interpreted that the ability of a combination of pressure factors, opportunities, rationalization, competence and arrogance of the

sample in this study can explain the variable of fraudulent financial reporting by 66.8% whereas, 33.2% of the detection of fraudulent financial reporting is explained by other factors.

Table 5.  
Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	30,9070 <sup>a</sup>	0,4330	0,6680

### Simultaneous Hypothesis Testing Results

Table 6 shows that the chi-square value = 36.824 with a degree of freedom = 5 and a significant level of 0,000

(0,000 <  $\alpha$  5%), then H01 must be rejected or in other words Ha1 can be accepted. This means that the pressure, opportunity, rationalization, competence



and arrogance variables simultaneously have a significant effect on fraudulent financial reporting.

Table 6  
Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	36,8240	5	0,0000
	Block	36,8240	5	0,0000
	Model	36,8240	5	0,0000

Source: Analytical data

### Partial Hypothesis Testing Results

Table 7 shows the results of logistic regression. From this table, we can deduce the results of hypothesis testing.

### The effects of Pressure on Fraudulent Financial Reporting

The result of this study indicates that pressure does

not affect on fraudulent financial reporting. The result of this study also supports the studies done by Fich & Shivdasani (2007), Skousen et al. (2009), and Ulfah et al. (2017) and which found that pressure does not affect fraudulent financial reporting. The result of this study does not support the research hypothesis, which states the pressure has a negative effect on the detection of fraudulent financial reporting. In other words, this study does not support the results of Setiawati & Baningrum (2018) which shows that pressures that are proxied by financial targets (ROA) have a negative effect on fraudulent financial reporting. Companies that have financial targets in the form of any ROA tend not to commit fraud because they do not feel pressured by these targets. Although, in theory, it states that companies with low ROA levels can indicate fraudulent financial reporting, because, for companies with the ability to produce low profits, the set targets seem to be more easily achieved (Wei, Chen, & Wirth, 2016).

Table 7.  
Variables in the Equation

		B	S.E.	Sig.
Step 1 <sup>a</sup>	ROA	-30,332	15,850	0,056
	BDOUT	-58,1760	23,9500	0,0150
	RECEIVABLE	56,7180	27,7840	0,0410
	DCHANGE	-4,6810	1,7190	0,0060
	CEOPIC	-0,7030	0,2820	0,0130
	Constant	34,0350	13,5220	0,0120

Source: Analytical data

### The effects of Opportunity on Fraudulent Financial Reporting

The result of this study is in line with the research hypothesis, which states that opportunity has a negative effect on the detection of fraudulent financial reporting. The result of this study also supports the results of research Yossi & Handayani (2018), Nurmulina & Sasongko (2018) and Uzun et al. (2004), which show that opportunity has a negative effect on financial statement fraud.

The results of this study do not support the research of Setiawati & Baningrum (2018), which shows that opportunity does not affect fraudulent financial reporting. The proportion of independent directors can reduce the chance of fraudulent financial reporting by monitoring the board of commissioners. In other words, the higher the proportion of independent commissioners of the socially responsible firms, the more pressing the

opportunity for perpetrators to commit fraud, and the perpetrators realize that their actions will be detected because they consider the monitoring function to be quite strict.

### The effects of Rationalization on Fraudulent Financial Reporting

This study is in line with the hypothesis which states that rationalization increase the fraudulent of financial reporting. It also supports the results of research by Yossi & Handayani (2018) and Nurmulina & Sasongko (2018), which show rationalization has a positive effect on financial statement fraud. However, this study does not support that of Akbar (2017), stating that rationalization reduces the fraudulent of financial reporting.

Companies that have high accounts receivable turnover have a good performance because they

managed to get bills from customers quickly. Therefore, they are in a good position in investing their funds. In theory, this is due to industry conditions that require companies to show ideal conditions. Therefore, there is an uncollectible account due to credit sales that determine account balance through the company's subjective estimation to write off the value of the receivables and indicate the occurrence of fraudulent financial reporting (Rustiarini, Sutrisno, Nurkholis, & Andayani, 2019).

#### **The effects of Competence on Fraudulent Financial Reporting**

The result of this study is not in line with the research hypothesis, which states that competence has a positive effect on the detection of fraudulent

financial reporting. It does not support the results of that by Siddiq et al. (2017) and Yossi & Handayani (2018) which show that competence has a positive influence on fraudulent financial reporting.

Table 8 shows that there are 38 or 58% of the sample data of companies changing their directors are not indicated of committing fraudulent financial reporting, and 12 or 19% of sample data companies that do not change their directors are not indicated to commit fraudulent financial reporting. This can be interpreted that SRI-KEHATI companies changing their directors tend not to be indicated as fraudulent financial reporting compared to companies that do not change directors.

Table 8  
The Relationship between Competence and Fraudulent Financial Reporting.

COMPETENCE	FRAUD		Non-FRAUD		Total	
		%		%		%
Competent	7	11	38	58	45	69
Non-Competent	8	12	12	19	20	31
Total	15	23	50	77	65	100

Source: Analytical data

#### **The effects of Arrogance on Fraudulent Financial Reporting**

The results showed that the arrogance proxied by the frequency of CEO photos appeared negatively affected the financial statement fraud detection. The result of this study is not in line with the research hypothesis, which states that arrogance has a positive effect on the detection of financial statement fraud. The results of this study do not support the results of Siddiq et al. (2017) and Tessa & Harto (2016), who show that arrogance has a positive effect on financial statement fraud. The negative influence of the number of CEO photos in the annual report could mean that CEOs want to use these photos as a means to build a reputation (Al-Shammari, Rasheed, & Al-

Shammari, 2019). In order to give an excellent reputation to the public, CEOs do not want to damage this reputation through fraud on financial statements. As a result, the more CEO photos, the less financial reporting fraud.

Table 9 shows that there are 16 or 25% of company sample data with a number of CEO photos above the average not indicated to commit fraudulent financial reporting, and as many as 36 or 55% of company sample data with the number of CEO photos below the average did not indicate fraudulent financial reporting. This means that the majority of SRI-KEHATI companies that display below average CEO photos tend not to commit fraud compared to companies that display above-average CEO photos.

Table 9.  
The Relationship between Arrogance and Fraudulent Financial Reporting

ARROGANCE	FRAUD		Non-FRAUD		Total	%
	No.	%	No	%		
Number of CEO Photos above average 15,06	1	2	16	25	17	27
Number of CEO Photos under average 15,06	12	18	36	55	48	73
Total	13	20	52	80	65	100

Source: Analytical data

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

It can be concluded that pressure, opportunity, rationalization, competence, and arrogance simultaneously affect the fraudulent financial reporting of socially responsible firms in SRI-KEHATI index in 2013-2018. The pressure is proxied by financial targets. In this case, ROA does not affect fraudulent financial reporting. Opportunities are proxied by ineffective monitoring in which the proportion of independent directors has a negative effect on fraudulent financial reporting. In addition, rationalization is proxied by the nature of the industry, in which by using the ratio of receivables (RECEIVABLE), it has an effect— with a positive direction— on fraudulent financial reporting. Besides that, a competence which is proxied by the change of directors has a negative effect on fraudulent financial reporting. Finally, arrogance, as proxied by the number of CEO photos, reduces the fraudulent on financial reporting. It means that CEOs use these photos as a means to build a reputation, and as a consequence, they do not want to do financial reporting fraud.

This research is still limited both to companies listed in the SRI-KEHATI index and to the 2013-2018 research period. Subsequent research is supposed to use a sample of research in other more diverse sectors such as the Jakarta Islamic Index (JII) which is a sharia-oriented company, or the LQ45 index which is 45 of the most liquid companies. Besides that, further studies can also add years of research periods to produce better research. The researchers can also use other proxies in measuring pentagon fraud, such as measuring pressure using leverage ratios to understand external factors. It is expected for learning further about fraudulent financial statements. This research can be used to support the companies' interests to consider the proportion of independent directors and the ratio of receivables in protecting against fraud.

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