Determinant of the Fraud Pentagon Theory for Fraudulence Financial Reporting

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Abstract

Fraud causes losses and cheating in financial statements is done intentionally by presenting and manipulating the value of material can mislead stakeholders in decision making for the company in the business world that reaches trillions of rupiah. This study aims to test whether pressure, opportunity, rationalization, capability, and arrogance affect the occurrence of fraud in financial statements. This research uses 20 companies, so a total was 120 financial reporting banking companies in Indonesia listed on the Stock Exchange from 2012-2017. The data used in this study is secondary data obtained from the company's annual financial statements. A purposive sampling technique was used to determine the research sample. Factor analysis and simple linear regression analysis methods were used for the research methods. The results showed pressure, rationalization, and capability have a significant with fraudulence financial reporting. But the other variable which are opportunity and arrogance have no effect with fraudulence financial reporting.

Keywords
Fraudulent Financial Reporting; Fraud Pentagon Theory; Fraud

1. Introduction

Fraud has become a problem for organizations around the world. Based on the results of the 2018 Global Study on Occupational Fraud and Abuse conducted by ACFE, Indonesia ranks third in the country with the most fraud cases after China and Australia (ACFE, 2018). Of the several types of fraud cases, fraudulent financial reporting is one of the most common types of fraud committed by management in the form of material misstatements of financial statements that can harm investors and creditors.

ACFE Indonesia Chapter (2017) further discovered that the most prevalent type of fraud was corruption, followed by misuse of state assets and financial reporting. The loss borne from a total of 36 cases of corruption ranged between Rp100 million and Rp500 million (Chapter, 2017). This gave Indonesia a very high Corruption Perception Index (CPI) score. One of the most cases in Indonesia is PT. Garuda Indonesia Tbk., in which the company recognized an income of Rp3.5 trillion, which was a receivable item. This misrepresentation of the interim financial statement in the first quarter of 2019 earned PT. Garuda Indonesia Tbk. a sanction from the Indonesia Stock Exchange (IDX) of Rp250 million (Detik Finance, 2019). Fraudulent financial reporting also occurred at PT Indofarma (Persero) Tbk. Evidence was found based on the results of an examination conducted by BAPEPAM which is currently being replaced by the Financial Services Authority, one of which is the presentation and disclosure of the financial statements of PT Indofarma (Persero) Tbk which are deemed inappropriate (Wahasusmiah & Indriani, 2020).

Fraud pentagon theory is the latest theory that explores the factors that trigger fraud, namely pressure, opportunity, rationalization, competence, and arrogance. In this study, the pressure factor is proxied by external pressure. Opportunity is proxied by the quality of the external auditors. Rationalization is proxied by changing an auditor. Competence is proxied by changing of directors, and arrogance is proxied by the frequent number of CEO's pictures.

Similar research in Indonesia did not use as many proxies as this research and only chose some proxies with minimal explanations (see for example Saputra & Kesumaningrum (2017); Agusputri & Sofie (2019); Agustina & Pratomo (2019); Annisya, Lindrianasari, & Asmaranti (2016); Prasastie & Gamayuni (2015)). Many studies in Indonesia also used data from companies with no fraud indications (see for example Agusputri & Sofie (2019); Agustina & Pratomo (2019); Annisya, Lindrianasari, & Asmaranti (2016); Prasastie & Gamayuni (2015), while the present study used data of companies already determined by the Financial Services Authority (OJK)1 as exhibiting fraud indications and then compared them with healthy similar companies. This study uses factor analysis to consolidate the elements of the fraud pentagon into one factor and make the fraud pentagon an independent variable are pressure, opportunity, rationalization, capability, and arrogance to influence the fraud pentagon on fraudulent financial reporting. This is also the novelty of this research.

The novelty of this study is the use of factor analysis to consolidate and summarize the five elements of the fraud pentagon into just one factor, namely, the fraud pentagon, which to the knowledge of the researcher, no one else has done to research the effect of pentagon fraud on fraudulence financial reporting. In addition, the rampant fraud cases have occurred in Indonesia, especially in the listed banking companies on Indonesia Stock Exchange. Until now, little research has been done to discuss this case, especially using the fraud pentagon theory. The selection of this research period is for six years (2016–2021). Because apart from the phenomenon that takes place, the research's six-year period is the ideal period time to find out if companies are known to have committed fraud.

1.1 Objectives

This study uses the theory of fraud pentagon which was coined by (Crowe, 2012). Because Crowe's Fraud Pentagon Theory is the latest theory used to test fraudulent financial reporting. This fraud pentagon theory also describes more complete indicators compared to previous theories. However, the indicators in Crowe's fraud pentagon theory cannot be directly investigated. The five elements are measured using proxy variables to order to get the appropriate results. Element pressure is measured by ROA and leverage. Opportunity is measured by the audit committee and audit size. Rationalization is measured by the change in auditor. Capability is measured by the change of the company's directors, and Arrogance is measured by the total of CEOs.

Meanwhile, in practical terms, this research is expected to be of use for stakeholders as a source of information regarding the factors that must detect as the causes of fraudulent financial reporting to order to avoid harmful fraud.

2. Literature Review

Donald R. Cressey states that accounting fraud is a case that cannot be completely separated from experience (Cressey, 1950). This fraud triangle divides three factors that drive, namely pressure, personal opportunity (opportunity), and role-play (rationalization) (Cressey D. , 1953). Horwarth (2011) found elements of competence and arrogance as triggers of fraud, competence replaces the elements of ability in the fraud diamond theory so that there are five elements to become the fraud pentagon theory.

Agency theory states that there is a contractual relationship between the agent and the principal. This theory also explains the existence of agency problems that occur when each party has different goals so that it has the potential to take opportunistic actions that can lead to information asymmetry, and in the end, will have an impact on the good and bad of the company.

Fraudulent financial reporting is fraud committed by management in the form of material misstatements of financial statements that are detrimental to investors and creditors (ACFE, 2018). Fraudulent financial statements are carried out by presenting financial statements that are better than the actual (overstatement) and presenting financial statements that are worse than the actual (understatement) (Laming & Setiawan, 2020). Zimbelman (2014: 52) explains that the motivation behind fraudulent financial statements is to support maintaining high stock prices so that investors feel that the investments invested are in a safe position. In addition, it is also stated that another thing that underlies fraudulent financial statements is to support the offering of bonds and shares in the capital market (Zimbelman, 2014).

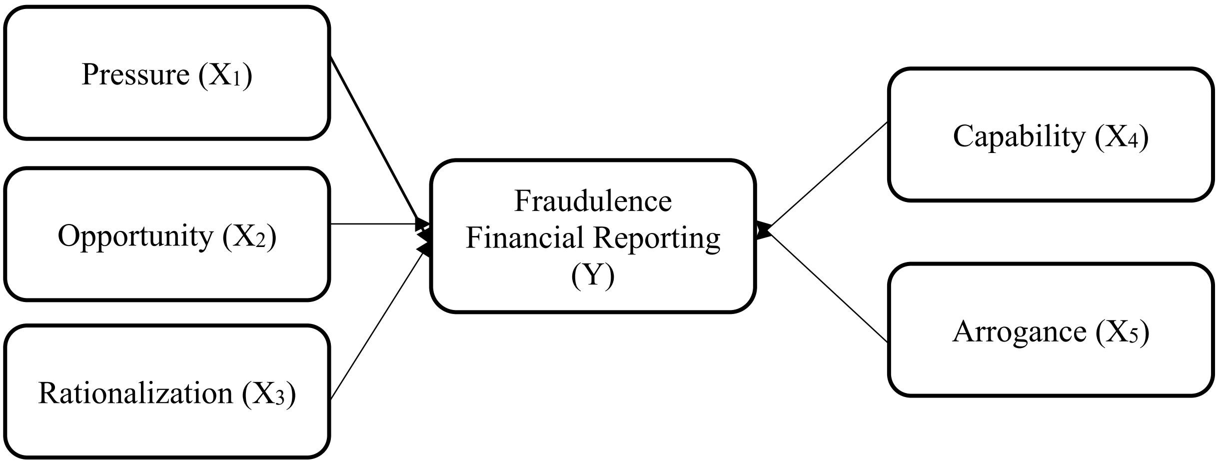

Figure 1. Research Conceptual Framework

2.1 The Following Research Hypothesis:

The first component in the fraud pentagon is pressure. Pressure may occur due to an unrealized goal or a limitation in time that gives an employee under pressure to commit fraudulent financial reporting (Auditor of Public Accounts, 2011). The comparison between total debt and total assets is called the leverage ratio. The company will be considered to have large debt and high credit risk if the company's leverage value has a high enough value. Creditors will think twice about providing capital loans if the company has high credit risk value. Because creditors consider the credit risk owned by the company, management feels pressured and this encourages management to carry out, improve and achieve continuous company operations by following the goals and desires of the board of directors.

The results of this study are similar to those of Noble (2019); Rengganis et al. (2019); Setiawati and Baningrum (2018); Saputra dan Kesumaningrum (2017); Suhaya *et al.* (2017); which state that pressure has a positive effect on financial statements fraud. Individuals or management will experience pressure to achieve the company’s financial targets, with the hope that, if the targets are achieved, management can get bonuses and high income, and this can be achieved if they have maximum performance.

H1: Pressure has a positive effect on fraudulent financial reporting

The second component of the fraud pentagon theory is an opportunity, which is a condition in which one can easily commit an act of crime (Annisya, 2016). The wider opportunity leads to a greater likelihood for one to commit fraud This positive relationship between opportunity and fraud has been discovered by several earlier research studies, one of which by Muhsin et al., (2018); Kusuma, Perdana, & Suranta (2017); Rukmana (2018). The company's current assets and fixed assets are highly susceptible to fraudulent acts. Asset engineering current such as cash accounts receivable, inventory, and prepaid expenses can be done by playing with the size of the asset components (Rukmana H. S., 2021). Based on the above description above, the hypothesis of this research is formulated as follows:

H2: Opportunity has a positive effect on fraudulent financial reporting

The third component in the fraud pentagon theory is rationalization, which is the justification of fraudulent behavior due to a lack of personal integrity in an employee or due to other moral reasons (Rae, 2008). Utami (2019) Rationalization in fraud pentagon theory is one element that can encourage fraud in the company's financial statements This element is an impressive reason to justify fraud and consider fraud as something justified and reasonable to do (Utami & Pusparini, 2019). If there is a change of external and internal auditors, then the new auditor is not to know about the company, so the fraud committed by management can be covered up more. It shows that when a company changes its external auditor, the auditor attempts to cover up fraudulent financial reporting.

Husmawati, Septriani, Rosita, & Handayani (2017), and Ulfah, Nuraina, & Wijaya (2017) found that change in auditors had a positive effect on fraud in financial statements, hence the following hypothesis:

H3: Rationalization has a positive effect on fraudulent financial reporting

Fourthly, capability is an expertise an individual owns and is a combination of individual skills and various acquired skills to commit fraud (Omar, 2010). Personal positions or functions within the organization provide the ability to create or exploit fraud. Beasley, et al. (1999) found that 70% of CEOs of public companies indicated that accounting fraud indicates that organizations are not applying sufficient checks and balances to reduce the CEO's ability to influence and perpetuate fraud.

One's position as a head of an organization, CEO, or director gives him/her a key to committing fraud because by holding his/her current position one will be able to influence others with his/her capability (Anggraini & Suryani, 2021). The results of this study are similar to Aprilia (2018); Febrianto (2019); Puspitha & Yasa (2018). Theoretically, it can also be explained that the ability or competence to commit fraud is caused by an internal interest in obtaining many benefits for self-interest (Devi & Widanaputra, 2021). The hypothesis that can be formulated based on the description above is as follows:

H4: Capability has a positive effect on fraudulent financial reporting

The fifth component relates to arrogance. Arrogance is seniority based on the proportion of rights one is entitled to. In the opinion of an arrogant person, neither procedures, policies, nor regulations of the company influence him/her (Hidayatun, 2019). Research conducted by Tessa and Harto (2016), Bawekes et al. (2018), Puspita and Yasa (2018) found that arrogance has a positive effect on financial statement fraud. Also, Yusof (2016) conducted a study to measure arrogance by assessing the presence of CEOs who have multiple positions both inside and outside the company. For example, several of these multiple positions encourage someone to commit collusion and even sacrifice the interest of shareholders. Also, members of the board of directors may suffer from performance problems because they are too busy and unfocused.

This positive relationship between arrogance to fraudulence in financial reporting same as results Puspitha & Yasa (2018); Bawakes et al. (2018); and Pramana et al. (2019). Referring to previous research, the hypothesis to be proposed is as follows:

H5: Arrogance has a positive effect on fraudulent financial reporting

3. Methods

This study uses fraudulent financial reporting as a dependent variable which is proxied by discretionary accruals by calculating *total accruals* (TA) and *nondiscretionary accruals* (NDA) (Husmawati, 2017). The operational definition of variables can be seen in the Table 1 below:

Table 1. Target Variables and Their Explanations

NO	TARGET VARIABLES	OPERATIONAL DEFINITION
1	Fraudulence Financial Reporting	DA = TA-NDA
2	Pressure	Return on Assets = Earnings After Tax/Total Asset Leverage = $\frac{\text{Total Liabilities}}{\text{Total Assets}}$
3	Opportunity	Audit Committee = A dummy variable where 1 = mention of oversight by an internal audit committee and 0 = no mention of oversight Audit Size = The size of the audit committee
4	Rationalization	Change in Auditor: Dummy variable, if there is a change of Public Accounting Firm during the period of 2012-2017 it is given code 1, 0 otherwise
5	Capability	Change in director: A dummy variable for change in Director where 1 = change in director in the 2 years before fraud occurrence and 0 = no change in director
6	Arrogance	The total picture of CEO in the annual report

3.1 Population and Sample

The population in this study is all banking companies listed on the Indonesia Stock Exchange (BEI) from 2016-2021. The sample was chosen using the purposive sampling technique with criteria as follows:

a. Banking companies that went public and listed on the Indonesia Stock Exchange (BEI) from 2016-2021.
b. Companies publishing audited annual reports in the period from 2016-2021.
c. The data that are needed for the research are available in publication from 2016- 2021

The data used in this study is secondary data obtained from the company's annual financial statements. A purposive sampling technique was used to determine the research sample. The sample in this study was 20 companies over a 6-year study period, so the total was 120 observations. The measurement of each variable, namely, financial statement fraud is proxied by F-Score; fraud pentagon theory is proxied by each element such as the pressure is proxied by ROA; the opportunity is proxied by BDOUT; rationalization is proxied by ΔCPA; competence is proxied by DCHANGE; and arrogance is proxied by CEO (Chief Executive Officer) duality. The research method used *software Statistical Package for the Social Sciences* (SPSS) version 24 is factor analysis and simple linear regression analysis method. The variables analysed in this study were defined as follows.

3.2 Analysis Method

Multiple linear regression analysis was used to analyse the effect of pressure, opportunity, rationalization, competence, and arrogance variables on fraudulent financial reporting partially and simultaneously. The regression model in this study is shown in the following equation:

FFR = β0+ β1ROA+ β2Lev + β3AuditCom +β4AuditSize+ β5ChangeAud + β5ChangeDirec + β5TotalCEOs + e

With:
FFR : Fraudulent Financial Reporting
β0 : Constants
ROA : The ratio Return on Assets
LEV : The ratio of total liabilities to total assets
AuditCom : Quality of audit committee
AuditSize : Size of KAP Audit
DCHANGE : Changes in auditor
ChangeDirec : Changes in director
totalCEOs : Number of CEO's picture

4. Results and Discussion

The test results Table 2 show that the adjusted R Square is 0.692, this means that 69.2% of the variation in fraudulent financial reporting can be explained by variations of the five independent variables of ROA, *LEV*, *Audit Committee, Audit Size, ChangeAud*, *ChangeDirec*, *TotalCEOs,* while the rest is explained by other causes. outside the model.

Table 2 Correlation Test Results Model Summary

Model	R	*R Square*	*Adjusted R Square*	*Std. Error of the Estimate*
1	.342a	.793	.692	.0472

a. Predictors: (*Constant*), Pressure X1, Opportunity *X2, Rationalization X3, Competence* X4, *Arrogance* X5

Source: Output SPSS, 2022.

Table 3 Partial Test Results (T-Test)

Coefficients						
		Unstandardized Coefficients		*Standardized Coefficients*		
Model		B	Std. Error	Beta	T	Sig.
1	(Constant)	.032	.012		3.125	.000
	Pressure (X1)	.053	.023	.230	3.238	.000
	Opportunity (X2)	.453	.132	.144	3.016	.322
	Rationalization (X3)	.032	.012	.121	3.260	.043
	Competence (X4)	.006	.014	.022	1.117	.046
	Arrogance (X5)	.002	.023	.051	.137	.728

a. Dependent Variable: FFRs

Source: Output SPS

Multiple Linear Regression Analysis

Based on the Table 3 above, the regression model is as follows:

FFR = β0+ β1ROA+ β2Lev + β3AuditCom +β4AuditSize+ β5ChangeAud + β5ChangeDirec + β5TotalCEOs + e

With:

FFR : Fraudulent Financial Reporting
β0 : Constants
ROA : The ratio Return on Assets
LEV : The ratio of total liabilities to total assets
AuditCom : Quality of audit committee
AuditSize : Size of KAP Audit
DCHANGE : Changes in auditor
ChangeDirec : Changes in director
totalCEOs : Number of CEO's picture

F Statistic Test

Table 4 Simulant Test Results (F Test)

ANOVAa						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	*Regression*	.074	5	.012	3.265	.000b
	Residual	.785	255	.002		
	Total	.859	260			

a. Dependent Variable: FFR

b. Predictors: (Constant), Pressure X1, Opportunity *X2, Rationalization X3, Competence* X4, *Arrogance* X5

Source: Output SPSS, 2022.

4.1 Discussion

Partial Test Results (t-test). The main purpose of the t-test is to get the most prominent effect of each independent variable on the dependent variable with a significance level of 5%. It can be said that there is an influence between the independent variables on the dependent variable if the significance value of the variable is <0.05. On the other hand, if the significance value is > 0.05, then there is no influence between the independent variables on the dependent variable. If you use a comparison of t-count and t-table, then the basis for making t-test decisions is if the value of t-count > t-table then there is a significant effect, otherwise if the value of t-table <t-count then there is no influence between the independent variable and the dependent variable.

Pressure Has a Positive Effect on Fraudulent Financial Reporting

The results of testing the first hypothesis show that the pressure variable has a positive effect on fraudulent financial reporting, it can be seen from the coefficient value of the pressure variable of 0.053 with a significance level of 0.000. This means that the higher the pressure, the more fraudulent financial reporting will occur. The results of this study support the results of research conducted by Skousen et al. (2009), Yesiariani and Rahayu (2016), Tessa and Harto (2016), Saputra and Kesumaningrum (2017), Rukaman (2018), Suhaya et al. (2017), and Laming (2020) who found that pressure significantly affects fraudulent financial reporting. Pressure proxied by external pressure (external pressure) is the pressure experienced by company management to meet the interests and demands of external parties or directors to improve and achieve continuous company operations by following per under the goals and desires of the directors, this can cause company management engineering financial statements to look good in the eyes of directors and investors.

Wahasusmiah (2020) creditors do not consider the size of the company's leverage. There are other considerations such as the height company's low free cash flow and the good relationship that has been established between companies and creditors so that it does not encourage management to fraud. In addition, reissuing shares to get additional company capital becomes the company's choice rather than entering into a new debt agreement that will increase the level of corporate liability.

Opportunity Has a Positive Effect on Fraudulent Financial Reporting

Opportunity leads to committing fraud (Cressey, 1953). One of these opportunities can arise when there is weak supervision, one of which is ineffective monitoring. Ineffective monitoring is a situation where the company does not have a supervisory unit that effectively monitors company performance. The results of testing the second hypothesis indicate that the opportunity variable does not effect on fraudulent financial reporting, it can be seen from the opportunity variable coefficient value of 0.453 with a significance level of 0.322. This means that the opportunity proxied by the quality of the external auditors does not effect on fraudulent financial reporting. Opportunity, as proxied by the quality of external auditor is determined by the choice of audit services at the Public Accounting Firm (KAP) appointed by the company, namely the Public Accounting Firm (KAP) affiliated with a foreign country because it is considered to have the ability to detect fraud and to produce better audit results than non-foreign affiliated audit services (Saputra, 2017). Guedhami and Pittman (2014) state that BIG4 public accounting firms are more likely to catch fraud signals and will disclose the results transparently and report them in their audit opinion reports.

This research of this study isn’t in line with research conducted by the Association of Certified Fraud Examiners (ACFE) in 2018 shows that external audit only reduces losses due to fraud by 28%. Laming et al. (2019) and Devi (2021) states that for external audit and internal audit to play an optimal role in detecting fraud, it is necessary to have an audit committee that is by following per under its function so that it can reduce the opportunity for irregularities to occur in the management of the company and increase the effectiveness of the internal and external audit functions and ensure audit findings are followed up properly.

Rationalization Has a Positive Effect on Fraudulent Financial Reporting

The results of testing the third hypothesis indicate that the rationalization variable has a positive effect on fraudulent financial reporting, it can be seen from the rationalization variable coefficient value of 0.032 with a significance level of 0.043. This means that the higher the level of rationalization, the more fraudulent financial reporting will be. Rationalization proxied by changing of auditor (auditor change) is an attempt to eliminate traces of fraud found by previous auditors (Tessa and Harto, 2016). By replacing the auditor, the company can cover up fraud discovered by the previous auditor so that fraudulent financial reporting cannot be detected.

The change of auditors can be considered to eliminate traces of fraud found by previous auditors (Sumaryati, 2020). This tendency encourages companies to replace their independent auditors to cover up fraud in the company. Theoretically, it can be concluded that to fulfill individual interests, rationalization is carried out to cover up the perception of fraud that will be carried out so that the individual can avoid the risk of fraud.

Capability Has a Positive Effect on Fraudulent Financial Reporting

The fourth hypothesis (H4) in this study states that changes in direction positive effect on fraudulent financial reporting. After testing the hypothesis, the results of the regression coefficient value were obtained with a value of 0.101 and a significance value of 0.046 (< 0.05). This means that a change in direction has a significant positive effect on fraudulent financial reporting, so the hypothesis (H4) is confirmed. A long-term working relationship between an external auditor and a company allows the risk of excessive familiarity to arise which will affect the independence of an external auditor. Under that condition, the external auditors and client are vulnerable to facing the conflict of interest which can reduce audit quality. The longer the audit engagement, the auditor will be more familiar with its client which the causes auditor to over trust the client company.

The stress period will make initial performance not optimal. So that the more often a company changes its directors, the more often a stress period will occur which will make it easier for the management to do financial report manipulation. This result is consistent with Pardosi (2015), Putriasih (2016), and Husmawati et al. (2017).

Arrogance Has a Positive Effect on Fraudulent Financial Reporting

The results of testing the fifth hypothesis indicate that the arrogance variable does not effects on fraudulent financial reporting, it can be seen from the coefficient value of the arrogance variable of 0.002 with a significance level of 0.728. A frequent number of CEO's pictures is used to measure the arrogance variable. The results of this study are not in line with the research of Tessa and Harto (2016) which states that the number of CEO images in the annual report may indicate a level of arrogance or superiority so that they feel that any internal control will not affect their status and position. However, the results of this study indicate that arrogance does not affect fraudulent financial reporting. This means that arrogance does not increase fraudulent financial reporting.

5. Conclusion and Future Research

This research focused on the effects of pressure, opportunity, rationalization, capability, and arrogance on fraudulent financial reporting in banking companies listed on the Indonesia Stock Exchange (BEI) in the period 2016–2021. The results show that pressure, opportunity, and rationalization influenced fraudulent financial reporting just as stated by the fraud pentagon theory.

The suggestion put forward from this study is that this study only uses one proxy for each element of the fraud pentagon theory, therefore further researchers can use other proxies in measuring the fraud pentagon theory other than those already used in this study. Also, investors, further researchers, or interested parties can use the *F*-Score is a measurement tool in assessing financial statement fraud, because the calculation components of the *F*-Score can be found in financial reports and are considered effective for detecting indications of financial statement fraud in the company.

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