

# FINANCIAL STATEMENT FRAUD: PERSPECTIVE OF THE PENTAGON FRAUD MODEL IN INDONESIA

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## ABSTRACT

*This study investigated the determinant factors of financial statement fraud (FSF) by employing the Fraud Pentagon model as a new approach. This study empirically examines 14 companies listed on the Indonesia Stock Exchange that incurred sanctions from the Financial Services Authority during the period 2013-2015, and 14 comparable companies as a control sample that were similar in both industry and size. This research is an explanatory research that applies logistic regression analysis to test 10 hypotheses on the effect of pressure, opportunity, rationalization, capability, and arrogance on FSF in Indonesia. The results show that free cash flow as a proxy of pressure; independence of the audit committee as a proxy of opportunity, total accruals as a proxy of rationalization, and disclosure of doubtful debts as a proxy of Capability have significant and negative effect on FSF. Those variables must be considered by external and internal auditors, investors, and those charged with governance, as well as government in their decision-making process for consideration of the occurrence of FSF.*

**Keywords:** Financial Statement Fraud, Fraud Pentagon Model, Pressure, Opportunity, Rationalization, Capability, Arrogance.

## INTRODUCTION

Fraud has become a global phenomenon due to the fact that it occurs in many countries in various sectors and industries, in addition to being carried out by actors at various different levels. The Global Fraud Study (2016) conducted by the Association of Certified Fraud Examiners (ACFE) revealed that the losses caused by fraud are equal to 5% of the annual revenue of the company, with a total loss of more than \$6.3 billion from the 2,410 cases of fraud that occur globally. Of the total losses mentioned above, \$975,000 was due to fraud in the form of financial statement fraud. Crowe (2011) developed the Crowe's Pentagon Fraud model. This model expanded the previous model of fraud which is the fraud triangle model and the fraud diamond model by adding the arrogance of the perpetrator. The Fraud Triangle model holds that there are three factors that influence the occurrence of fraud, namely pressure, opportunity, and rationalization (Turner, Mock, & Srivastasa, 2003). Wolfe & Hermanson (2004) added another factor, namely capability, that can influence the occurrence of fraud and extended the model into the Fraud Diamond model (capability). In their argument, Wolfe & Hermanson (2004) stated that the perpetrators of such fraud have reasons such as pressure, opportunity, and rationalization to commit fraud activities; however, fraud will not occur unless the offender also has the capability to commit it. Several studies have previously stated that financial statement fraud can be detected from some of the indications in companies' financial statements (Dechow, 2011; Persons, 1995). Most previous research stated that opportunity is one of the factors that mostly affect the financial statement fraud (Beasley, 1996; Beasley et al., 2000; Rezaee, 2005; Person, 2005). Skousen (2008) states that only five proxies of the pressure factor and two proxies of the opportunity factor were effective in predicting and detecting financial statement fraud. Skousen

(2008) also states that the rationalization factor is not effective as a factor to detect financial statement fraud and acknowledges the difficulties in measuring the rationalization factor in his research. Therefore, it is interesting to have it studied further together with the other factors of capability and arrogance (Kaminski et al, 2004).

Furthermore, several other prior studies on financial statement fraud have been conducted in the context of Indonesia. Most of these, however, have investigated the factors contained in the Fraud Triangle model (Hanifa & Laksito, 2015; Fimanaya & Syaruddin, 2014) and the Fraud Diamond model (Sihombing & Rahardjo, 2014; Manurung Hardika, 2015) in detecting financial statement fraud. Accordingly, financial statement fraud examined from the perspective of the Fraud Pentagon is still under-researched, thus it is interesting and important to conduct further study in this area. The main motivation of this research is to ascertain those factors within the Fraud Pentagon model that significantly affect the occurrence of financial statement fraud in Indonesia. This study is expected to contribute to the scientific development of theories and practices of financial statement fraud in Indonesia.

## **THEORETICAL BACKGROUND AND HYPOTHESIS DEVELOPMENT**

### **Fraud Pentagon Model and Financial Statement Fraud**

ACFE (2016) defines financial statement fraud as a presentation of the company's financial situation through intentional misstatements by omitting the value of certain elements within those statements and with the intention of deceiving the users of the statements. Financial statement fraud in the form of misstatements can be either overstated or understated and can also be committed by covering up the actual conditions. The Pentagon Fraud model developed by Crowe (2011) names five factors that cause fraud: pressure, opportunity, rationalization, capability, and arrogance. The first three factors pressure, opportunity, and rationalization were first put forward by Cressey (1953) in the Fraud Triangle model. Pressure is a condition that encourages a person to commit fraud and includes aspects such as economic demands and lifestyle, as well as the environment. Four types of pressure are namely financial stability, external pressures, personal financial needs, and financial targets. Opportunity is a condition in which a party may seize an advantage to commit fraud. Opportunity can arise due to a low level of supervision in a company. According to ISA 240, there are two types of conditions that encourage parties to take advantage of an opportunity to commit fraud, namely complexity in the organizational structure or the stability of the organization as an entity. Ineffective oversight may lead to the domination of management by one or more particular groups that cannot be effectively monitored by the board. Rationalization is based on the viewpoint of one's justification for committing fraud-related activities. Gillet & Uddin (2005), in Hogan (2008), stated that the attitude of the Chief Financial Officer has a significant impact on the intention not to report the fraud. Furthermore, Hernandez and Groot (2007), in Hogan (2008), also stated that the factors of revenue recognition and accounting estimates, aggressive company, management integrity, honesty, and ethics are the most important factors in measuring the risk of fraud. However, Suyanto (2009) stated the likelihood of FSF is easier to be observed publicly using risk factors of pressure and opportunity rather than rationalization. The fourth factor of capability was subsequently added to the Fraud Triangle model to develop the Fraud Diamond model (Wolfe & Hermanson, 2004). Capability refers to a person's ability to commit fraud. Albrecht, Williams, & Wernz (1995) argue that only people who have a high capacity to understand the existing internal controls are able to override them and conduct fraud. Mackevicius & Giriunas (2014)

state that an individual who, despite having the pressure, opportunity, and rationalization, may not commit fraud unless they also have the capability to do so. Sorunke (2016) and Tugas (2012) stated that the previous model of fraud triangle and fraud diamond theory is not yet reliable to detect financial statement fraud. Crowe (2011) explain that there are five elements of arrogance from the CEO perspective: 1) A large ego: the CEO is seen as a celebrity rather than as a businessman; 2) They can cut through internal control and do not get caught; 3) They have a suppressing attitude (Bullying- attitude); 4) They apply an autocratic management style; and 5) They fear the loss of position or status.

### **Pressure and Financial Statement Fraud**

According to Cressey (1953), a condition that is always present in cases of financial statement fraud is pressure. Skousen et al. (2008) prove the existence of a significant relationship between pressure and financial statement fraud. Most researches in Indonesia also show that pressure is a risk factor for financial statement fraud (Sihombing & Rahardjo, 2014; Maghfiroh, Ardiyani, & Syahnita, 2015; Widarti, 2015). Pressure arises if a company's performance falls below the industry average and management may manipulate the company's financial statements by providing the appearance of stable growth (Skousen et al., 2008). As such, growth in assets is used to indicate a company's financial stability (Beneish 1997; Beasley et al. 2000). Dechow et al. (1996) argue that the demand for external financing depends not only on how much cash is generated by a firm's operating and investment activities, but also on the amount of funds available within the firm.

### **Opportunity and Financial Statement Fraud**

The second factor that cause financial statement fraud is opportunity (Cressey, 1953). Companies with weak internal controls will have many loopholes that can present an opportunity for management to manipulate transactions or accounts. Beasley (2000) states that good corporate governance mechanisms will reduce the potential for financial statement fraud. Farber (2005) fraud firms have poor governance in the year prior to fraud detection. Furthermore, Smith et al (2000) suggest that the strength of internal controls in the company will be inversely related to the likelihood managers commit fraud. Previous research conducted in Indonesia by Tiffani & Marfuah (2016), Sihombing & Rahardjo (2014), and Kusumawardhani (2013) also proved that opportunity may affect financial statement fraud.

### **Rationalization and Financial Statement Fraud**

Rationalization involves the perpetrators seeking to justify their actions in committing fraud. Various studies in Indonesia show that such rationalization can lead to financial statement fraud (Sihombing & Rahardjo, 2014; Tiffani & Marfuah, 2016). Skousen et al. (2008) argue that rationalization can be measured by a change of auditors. Beneish (1997), Francis & Krishnan (1999), and Vermeer (2003), as mentioned in Skousen (2008), argue that accruals are representative of management's decision-making and provide insight into their financial reporting rationalization. Moreover, Francis & Krishnan (1999) also conclude that excessive use of discretionary accruals may lead to qualified audit opinions. Stice (1991) and Skousen (2008) also highlight how incidences of audit failures and litigation often occur following a change in a company's external auditors.

## Capability and Financial Statement Fraud

Wolfe & Hermanson (2004) stated that fraud can only occur if the right people have the right capability to commit it. Hardika (2015) stated that capability is a factor that affects financial statement fraud. A position as a CEO or leader can be a factor of fraud since individuals in such roles can use their position to influence others to commit fraud. A change of directors will be closely related to political content and interest, which can generate a conflict of interest. Wolfe & Hermanson (2004) concluded that a change of directors may be an indicator of fraud.

## Arrogance and Financial Statement Fraud

According to Crowe (2011), research by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) found that 70% of the perpetrators of fraud have a profile featuring a combination of pressure with arrogance and greed. A total of 89% of the cases of fraud involve the CEO. Crowe (2011) and Yusof & Simon (2015), also states that arrogance is a trait that demonstrates a sense of superiority and an inherent lack of awareness arising from greed and the thought that a company's internal control does not apply to them personally. Yusof & Simon (2015) argue that a politician who is also a CEO or company president indicates a greater likelihood of financial statement fraud.

## HYPOTHESES

Previous empirical studies observed factors of financial statement fraud of the perspective of fraud triangle and fraud diamond model. However, this study observed how five factors of fraud pentagon model, i.e. pressures, opportunity, rationalization, capability, and arrogance affect the occurrence of financial statement fraud. To accomplish this, hypotheses are as follows:

*H1: A bigger change in assets will affect the occurrence of financial statement fraud.*

*H2: Finance is an additional external pressure for the company that affects the occurrence of financial statement fraud.*

*H3: Free cash flow of the company will reduce the need for external financing for the company, which can reduce the occurrence of financial statement fraud.*

*H4: A presence of independent audit committee members will reduce the occurrence of financial statement fraud.*

*H5: Better total accruals as management's estimate on accounting earnings reduces the occurrence of financial statement fraud.*

*H6: Unqualified audit opinion reports show a lower occurrence of financial statement fraud.*

*H7: A change in auditors will reveal the occurrence of financial statement fraud.*

*H8: A change of director indicates a higher tendency of the occurrence of financial statement fraud.*

*H9: The non-disclosure of a doubtful debt policy indicates a higher tendency of the occurrence of financial statement fraud.*

*H10: Arrogance affects the occurrence of financial statement fraud.*

## METHOD

This study employs a quantitative research method using a logistic regression model to test the hypothesis. Logistic regression will result in a regression model to test the probability of occurrence and the extent to which the dependent variable can be predicted by the independent variables. There is no requirement for a normality test or heteroskedasticity test, and classical assumptions are applied to the independent variables (Hair, 2015). Sample of the research are companies sanctioned by Indonesia Financial Service Authoritative due to violation of Bapepam Regulation VIII.G7 in the period 2013-2015. There were 14 fraud companies and other 14 non-fraud companies included in this research sample. The control sample selected non-fraud companies from the same industry that all had similar levels of assets, with a range of up to 30%.

## RESULT AND DISCUSSION

### Multicollinearity Test

The test results for multicollinearity for 10 existing proxies and the test results showed that there is a strong correlation between the ten existing proxies.

### Significance Test Model

The significance test model used the Omnibus Tests of Model Coefficients value table to ascertain the results of testing the feasibility of the logistic regression models formed. The following test result was obtained: Sig. Model value of 0.000 with an alpha value < significance of 5%.  $H_0$  is thus rejected, and the study concludes that a decent regression model was used to predict the effect of independent variables on the variable fraudulent financial statements. The significance of 0.000 also shows that at least one of the independent variables affects the dependent variable (Beasley et al, 2000).

		Chi-square	Df	Sig.
Step	83.712	10	0.000	
Block	83.712	10	0.000	
Model	83.712	10	0.000	

### Feasibility Regression Model

#### Hosmer–Lemeshow Test

The significant value resulting from the Hosmer-Lemeshow test, as shown in Table 3, is 0.487, which shows a significance value of  $>0.05$ , meaning  $H_1$  is accepted. It can be concluded with 95% confidence that the logistic regression model used is both capable and appropriate to explain the data.

Step	Chi-square	Df	Sig.
1	7.469	8	0.487

## Nagelkerke R-Squared Test

Table 4 shows that a value of 0.841 was obtained from the *Nagelkerke R-Squared* test. It is thus concluded that 76.11% of the variance of financial statement fraud can be explained by using the existing models.

	-2 Log likelihood	Cox & Snell R-Squared	Nagelkerke R-Squared
	32.736a	0.631	0.841

a. Estimation terminated at iteration number 20 because maximum iterations had been reached. The final solution cannot be found.

## Classification Plot Test

The percentage of model accuracy in classifying observation in this test was 90.5%, as can be seen in Table 5. Based on this, from the total of 84 observations, 76 observations could be accurately classified using the logistic regression model.

Step 1	Observed		Predicted		
			FRAUD		Percentage Correct
			0.00	1.00	97.1
	FRAUD	0.00	68	2	57.1
		1.00	6	8	90.5
	Overall Percentage				
a. The cut value is 0.500					

## Regression Logistic

Table 6 displays the logistic regression test results from the five independent variables as represented by the 10 proxies used in this study. The test results show that the 4 proxies of pressure, opportunity, rationalization, and capability have a significance value  $<0.05$ . The test results also show that CEOPOL, representing the arrogance variables, do not significantly affect financial statement fraud, with a score of  $0.998 > 0.05$  significance level.

		B	S.E.	Wald	Df	Sig.	Exp(B)
Step 1 <sup>a</sup>	ACHANGE	0.969	1.374	0.498	1	0.480	2.636
	FINANCE	-0.113	0.506	0.050	1	0.823	0.893
	FREEC	-0.070	0.028	6.280	1	0.012	0.933
	IND	-5.871	1.950	9.063	1	0.003	0.003
	AUDCHANGE	36.760	9927.769	0.000	1	0.997	9222135599328192.0
	AUDREPORT	-1.149	1.042	1.215	1	0.270	0.317
	TACC	-5.012	2.331	4.625	1	0.032	0.007
	DCHANGE	-1.416	1.512	0.877	1	0.349	0.243
	DOUBTDISC	3.429	1.708	4.031	1	0.045	30.852
	CEOPOL	-17.757	7051.009	0.000	1	0.998	0.000

a. Variable(s) entered on step 1: ACHANGE, FINANCE, FREEC, IND, AUDCHANGE, AUDRPORT, TACC, DCHANGE, DOUBDISC, and CEOPOL.

The logistic regression equation used in this study is as follows:

$$\begin{aligned} \ln(F/1-F) = & \beta_0 + 0.969\text{ACHANGE} - 0.113\text{FINANCE} - 0.070\text{FRECC} - 5.871\text{IND} + \\ & 36.760\text{AUDCHANGE} - 1.149\text{AUDREPORT} - 5.012\text{TACC} - 1.416\text{DCHANGE} + \\ & 3.429\text{DOUBTDISC} - 17.757\text{CEOPOL} + e \end{aligned}$$

## **DISCUSSION**

### **Effect of Pressure on the Occurrence of Financial Statement Fraud**

The logistic regression test result shows that FRECC representing the variable pressure has a significant effect on financial statement fraud, with a significance of  $0.012 > 0.05$ . Free cash flow shows the ability of the company's internal financing in terms of how well the company can finance the expansion and operations of its own funds. The negative coefficient of  $-0.70$  is consistent with the empirical facts on the ground, showing that the better the company's internal financing capability, the less the likelihood of financial statement fraud. Companies whose own financing ability of poor are likely to be highly dependent on external financing. These results are consistent with Skousen (2008), who states that a greater amount of operating cash flow will reduce the possibility of the company to be engaged in fraud activities.

### **Effect of Opportunity on the Occurrence of Financial Statement Fraud**

IND shows the percentage of the audit committee that is an independent party of the company significantly affect the occurrence of financial statement fraud with a significance value of  $0.003 > 0.05$ . The result indicates that the smaller the percentage of independent members of the audit committee, the greater the likelihood of financial statement fraud which shows a similar result with Abbot, Parker, and Peters (2004). This finding is also supported by Hogan et al. (2008), who state that weak corporate governance will increase the likelihood of financial statement fraud. The results of this study are also consistent with those of Beasley (1996), who outlines a difference in the composition of the company's audit committee between fraud and non-fraud companies. In line with this, Beasley (2000) states that the audit committees of fraud-related companies are less independent than those of non-fraud companies.

### **Effect of Rationalization on the Occurrence of Financial Statement Fraud**

The results show that TACC representing for rationalization have a significant effect on the possibility of financial statement fraud in Indonesia, with a significant value of  $0.032 < 0.05$ . total accruals reflect management judgment and estimates of the cash flows of the company to present the accounting earnings to reflect the economic performance of the company. the better judgment and estimates made by management in this case will mean the level of discretionary accruals become smaller while the level of non-discretionary accruals are greater, thus further minimizing the possibility of financial statement fraud. This is supported by Francis & Krishnan (1999) stating that the excessive use of discretionary accruals could result in a form of misleading unqualified audit opinion. Dechow (2011) also found that misstatements in the financial statements were linked to low earnings quality in the company and a decline in the financial and non-financial performance of companies.

### **Effect of Capability on the Occurrence of Financial Statement Fraud**

This research result indicates that DOUBTDISC as a proxy of the capability variable shows a significant positive effect ( $0.045 < 0.005$ ) on the occurrence of financial statement fraud. This result is not consistent with the explanation given by Mohamed (2015), who explains that companies that commit fraud will usually be less likely to make disclosures on their doubtful accounts. The empirical evidence states that the company will continue to disclose the amount of doubtful accounts of companies as shown in this study data. However, the company does not further disclose its ability to collect the doubtful accounts. This can be considered as the ability of management to cover a company's inability to collect receivables through the formation of a doubtful account and then putting through a disclosure.

### **Effect of Arrogance on the Occurrence of Financial Statement Fraud**

The result shows that the variable of arrogance as proxied by CEOPOL does not affect the possibility of financial statement fraud. This is not in line with Crowe (2011), who explains that the profile of the perpetrators of fraud takes the form of a combination of pressure with arrogance and greed. Indonesia has been found to not be similar to Malaysia in this regard, as studied by Hull (2016), who states that a CEO who is also a politician, representing the arrogance variable, has a significant effect on the occurrence of financial statement fraud. The data show that CEOs of Indonesian companies with fraud indication during the period 2013-2015 were not actively involved in political activities and had no involvement as members of any particular party.

## **CONCLUSION AND RECOMMENDATION**

The conclusion of this study is that four of the five factors in the Fraud Pentagon theory, namely pressure, opportunity, rationalization, and capability, are proven to significantly affect the occurrence of financial statement fraud in Indonesia. Therefore, the internal auditors, external auditors, those charged with governance (TCWG) in the companies, investors, and prospective investors, as well as government, must consider factors such as pressure, opportunity, rationalization, and capability to measure and weigh the possibilities of fraud within a company's financial statements. The internal auditor is an internal party of the company who is expected to play a significant role in the prevention and detection of fraud external of financial statement fraud. External auditors are also important parties who are expected to detect financial statement fraud as part of their auditing activities on the fairness of the financial statements. As for other parties such as TCWG and the government, an understanding of the factors that can lead to financial statement fraud will be very helpful in their decision-making process.

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