Financial Statement Fraud Risk Factors of Fraud Triangle: Evidence From Indonesia

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Abstract

The purpose of this study is to examine the risk factors that influencing financial statement fraud. Especially, it examines the influence of rationalization, pressure, and opportunity on the fraudulent financial statements and also examines the interaction effect of industry risk and company size on the relationship between rationalization, pressure, and opportunity on financial statement fraud. Secondary data were collected from Bloemberg Data Base, IDX and OJK RI. The population in this study is companies listed on the Indonesia Stock Exchange in the moving year from 2011 to 2017 and the sample was selected by companies that indicated financial statement fraud and those that did not indicate financial statement fraud. The company indicated by Fraud was collected from Bapepam and OJK RI. Data were tested using logistic regression analysis and different T-tests of 28 committed fraud companies and 28 companies that did not commit fraud. The results showed that only some variables had a significant effect on financial statement fraud, namely financial stability (ACHANGE), Financial Target (ROA), and the Nature of Industry (ARCHANGE). The results also show that company size and industry risk do not moderate the fraud factors on financial statement fraud. These results support the fraud triangle theory in explaining the phenomena of financial statement fraud.

Keywords: financial statement fraud, opportunity, pressure, rationalization, industry risk

1. Introduction

Fraud (Fraud) is still a big problem today. The survey results of Pricewaterhouse Coopers (PWC) and The Association of Certified Fraud Examiners (ACFE) indicate that fraud is still high in number. The results of the Global Economic Crime Survey PWC in 2018 showed that 49% of respondents said their company fraud increase of 36% from 2016. The fraud survey 2018 PWC in the Asia Pacific also showed high results which increased the percentage of fraud from 30% to 46% in 2018. Report To The Nations 2014 Global study fraud survey in 2014 which was based on 1483 cases of fraud in 2014 in 100 countries indicated that organizations lost 5% of annual revenue or at least $ 3.7 trillion (ACFE, 2016). Moreover, Report To The Nations 2018 Global Study On Occupational Fraud And Abuse also reported that the most common and most expensive form of occupational fraud is financial statement fraud, which occurs in 10% of cases and causes an average loss of USD 800,000.

The famous theory in the last few decades regarding fraud is the Fraud Triangle. The Fraud Triangle theory is the reference of most researchers and also the reference of the Statement of Auditing Standard (SAS) No. 99 issued by the American Institute of Certified Public Accountants (AICPA) in October 2002. Likewise in Indonesia, IAI and Bapepam also adopted the rules in SAS 99 into Public Accountant Professional Standards (SPAP) Number 70 to assess risk factors fraud in the audit process.

A study on the relationship between the Fraud Triangle and financial statement fraud is quite limited. Mostly, the studies more examined fraud risk factors and corporate governance (Aghghaleh, Iskandar, & Mohamed, 2014; Hasnan, Rahman, & Mahenthiran, 2013; Hogan, Rezaee, Riley, & Velury, 2008; Lou & Wang, 2009; Skousen & Wright, 2008; Spathis, 2016; Omar & Yusof, 2018; Rengganis et al. 2019). The studies have also developed several Fraud Triangle proxies that refer to previous research and SAS No. 99 (Skousen et al, 2008; Hasnan et al, 2013). Hasnan et al (2013) also suggested further empirical fraud testing in developing countries due to the differences in fraud factors in a develop countries.

Some Fraud Triangle proxies have been formulated by some researchers, however, researchers still have difficulty in formulating proxies that are in accordance with fraudulent financial statements, especially proxies for rationalization. There is limited research related to financial statement fraud in the area of behavior and rationalization (Hogan, et al, 2008; Prayatna, A.P & Fitriany, 2014). SAS No.99 also has difficulty in associating the characteristics used as indicators of rationalization (Aghghaleh et al, 2014; Skousen, et al, 2008). In this research, information asymmetry will be tested as an additional proxy for rationalization. The link of rationalization with information asymmetry can be seen from a study of Stalebrink & Sacco (2007) which stated that the view of information asymmetry assumed that regulatory authority can impose regulations to provide a better balance between principal and agent knowledge in fraudulent financial statements. In addition, there are still inconsistent relationships of research in the relationship between Information Asymmetry and Financial Statement fraud. There is a significant relationship between information asymmetry with earnings management or financial statement fraud (Dye, 2007; Elayan, Li, & Meyer, 2008), but Richardson (1998) and Veronica & Bachtiar (2005) stated that information asymmetry is negatively correlated with earnings management.

The Fraud Triangle model is not compatible with all situations and it is contextual (Wells, 2005), so it is assumed that there are external factors that influence the relationship of these variables. Industrial Risk and Company Size are indicated to be important factors as a moderating factor in financial statement fraud. Large companies will have better stability and predictable operations, which can lead to small prediction errors (Gu, Lee, and Rosett, 2002). Large companies usually have a strong internal control system compared to smaller companies; they have more frequent disclosures, better reporting practices, and are followed by analysts, closely monitored by the public (Elayan, et al., 2008; Adam et al., 2016). As a result, larger size companies will tend to be smaller to commit accounting irregularities than smaller companies.

Industry risk is also thought to be a moderating factor. The quality of corporate financial reporting also depends on the company's external risk factors in the form of environmental risk, namely industry portfolio risk or industry classification risk because accounting policies and management choices may differ because they are cross-industry. Financial indicators may be more sensitive in some industries (Pagalung, 2006; Gu et al., 2002). Doinea (2012) also stated that the industry as a potential risk factor is inherent in his study of financial statement fraud factors. The manufacturing industry is suspected to have a high level of vulnerability to fraud.

Based on our best knowledge, the Fraud Triangle proxy has been not perfect yet; therefore, this study can be regarded as an important study that identifies other fraud factors that influence financial statement fraud in developing country which have different patterns from develop countries. Considering the facts that: fraud factors in developing countries is different in develop countries, the Fraud Triangle is not compatible with all situations and it is contextual, and the rationalization proxy is so limited, hence this study will develop the factors that influence Financial statement fraud based on the Fraud Triangle in a developing country. Extending this context the main objective of this research is to examine the influence of rationalization, pressure, and opportunity on the fraudulent financial statements and also to examine the interaction effect of industry risk and company size on the relationship between rationalization, pressure, and opportunity on financial statement fraud. This research is expected to contribute to the development of the Fraud Triangle for the detection of fraud risk factors in developing countries that have different patterns from develop countries.

2. Literature Review and Hypotheses Development

Over the past two decades, interest from academics and practitioners in the field of financial reporting fraud has grown dramatically (Persons, 1995; Beasley, 1996; Aghghaleh et al, 2014; Hasnan et al, 2013; Hassink, Meuwissen, & Bollen, 2010; Hogan et al, 2008; Lou & Wang, 2009; Skousen et al, 2008; Spathis, 2016). Albrecht and Romney (1986) published the first study of the "usefulness" of red flags to predict fraud. AICPA also issued SAS 53 which explains the auditor's responsibility to detect fraud in 1988, and research has focused on assessing the fraud risk in financial reporting to examine potential factors for fraud risk. Other study groups have also investigated whether financial ratios are useful in identifying fraud, Calderon and Green (1994) published the first empirical fraud risk study using public information including financial and operating data to build a fraud model.

Only a few studies of financial statement fraud related to the fraud triangle. Although the AICPA describes various fraud risk factors in SAS 53 and SAS 82, only SAS 99 categorizes these factors according to the fraud triangle theory (Heiman-Hoffman, Morgan, & Patton, 1996; Wilks & Zimbelman, 2004). Wilks and Zimbelman (2004) examined whether separate assessments of risk attitudes, opportunities, and management incentives increase auditor sensitivity to opportunities and incentives. Through the 40 fraud risk factor questionnaire in SAS 99, they found that perceptions of company management attitudes that had low fraud risk, auditors who conducted fraud assessments

would be more sensitive to opportunity signals and incentives than auditors who assessed overall fraud risk. Although research on the questionnaire method has been quite extensive in the literature, studies related to the fraud triangle (Wilks and Zimbelman, 2004; Skousen and Wright, 2006) are still limited. Skousen and Wright (2006) develop a fraud-prediction model that includes risk factors that are related only to pressures and opportunities.

Various kinds of empirical research were conducted to apply the concept of the fraud triangle. Turner et al. (2003) examined the impact of the fraud triangle on the audit process that develops an evidence network that has two sub-networks. Lou and Wang's (2009) study was conducted to examine the risk factors of the fraud triangle. The results indicated that reporting fraud is related to one of the following conditions; financial pressure from a company or company supervisor, a higher percentage of complex company transactions, the integrity of the manager, and a less harmonious relationship between the auditor and the company. Skousen, et al (2009) also carried out empirical testing of the fraud triangle concept adopted by SAS 99 to detect financial statement fraud. Yusrianti et al. (2020) also examined the risk factors of the fraud triangle on Asset misappropriation that is one type of fraud.

2.1 Rationalization and Fraudlent of Financial Statements

Someone rationalizes dishonest actions so they don't feel guilty. Rationalization requires that individuals reconstruct their behavior from what is unacceptable to be accepted to reduce feelings of dissonance or guilt (Bandura 1999). Usually, this condition can develop into a distorted company culture that makes it acceptable for members of the organization to behave illegally. The same rationalization often allows for acts of fraud (Zimbelman, C.Albrecht, W.Albrecht, and C.Albrecht, 2014). Some studies also stated that rationalization has a significant impact on financial statement fraud. Some important proxies are total accruals (Nindito, 2018) and the auditor’s change (Pramana, Suprasto, Putri, & Budiasih,, 2019). Nevertheless, the rationalization proxied by the audit opinion variable does not affect financial statement fraud (Rengganis, Sari, Budiasih, Wirajaya, & Suprasto, 2019).

Many financial statement frauds involve related party transactions (RPT). A company is more profitable if a member of a business group because it acts as an intermediary between individual entrepreneurs and imperfect markets (Hasnan et al, 2013). Therefore, it becomes an empirical question in developing countries, whether the RPT adds value and helps companies to avoid financial statement fraud or whether it is positively related to financial statement fraud.

Furthermore, the company's founders who are in the management of the organization will also have implications for fraud. The influence of the founder in the management of a company is a force that helps the existence of a culture that justifies deviant management behavior (Fich and Shivdasani 2007). In emerging markets, family ownership and founding members of company commissioners are common, and evidence showed that the continued presence of founders in commissioners can make organizational culture more homogeneous (Davidson, Worrell, & Lee, 1994). This commitment can be so strong that they will do anything to ensure the survival of the company, including turning a blind eye to deviant management behaviors such as earnings management and financial statement fraud.

This study includes information asymmetry as a proxy for rationalization. The reason can be seen from the study of Stalebrink & Sacco (2007) that implied in financial statement fraud, the view of information asymmetry assumed that regulatory authority can impose regulations to provide a better balance between principal and agent knowledge. Richardson (1998) also argued that there is a systematic relationship between information asymmetry and earnings management level. Information asymmetry also showed the results of a significant positive effect on unethical behavior in companies and it also provided a significant positive effect on the tendency in corporate accounting fraud (Wilopo, 2006). Some information asymmetry research also has not shown a consistent relationship. There is a significant relationship between information asymmetry with earnings management or financial statement fraud (Dye, 2007; Elayan et al, 2008). Nevertheless, Richardson (1998) and Veronica & Bachtiar (2005) stated that information asymmetry is negatively correlated with earnings management.

Based on the above it can be concluded that the amount of rationalization will further increase the fraudulent financial statements that influenced by Related party transactions, Founder on Board, and Information Asymmetry. This conception is formulated with the H1 hypothesis.

H1: There is a positive influence between rationalization and financial statement fraud.

2.2 Opportunity and Financial Statements Fraud

Opportunity is a condition or situation that allows someone to do or cover up dishonest actions (Cressey, 1953). Empirical evidence showed that the opportunity to cheat financial statements increases when a company does not have a strong corporate governance mechanism. If opportunities increase, fraud also increases (Cohen et al, 2011). Effective corporate governance, including boards of directors, audit committees, and internal controls, as well as

external auditors, played a key role in reducing opportunities for fraud (Hogan, 2008). Effective and strong internal control is needed to reduce the opportunities involved in fraudulent financial reporting (Doinea et al, 2012). Kenyon and Tilton (2006) also said that weak internal control, lack of supervision, adequate separation of tasks can create opportunities for fraud. Yusrianti et al. (2020) also implied that the opportunity had a significant positive effect on asset misappropriation tendency.

Opportunities for fraud will increase along with poor audit quality. As an external corporate governance mechanism, auditors can help prevent fraudulent financial statements. Companies involved in financial reporting fraud have a significantly poor corporate governance structure where lower audit quality and outside directors appear to be overcommitted (Hasnan et al, 2013). The size of the audit firm and audit fees are a proxy for audit quality. The validity of Big 4 versus non-Big 4 as a measure of audit quality has been questioned by Francis and Schipper, (1999), where it is possible that the reputation and expertise of individual Big 4 offices is not standard and uniform throughout the world, but varies from one place to another together with the specific client at the place. Ferguson, Lennox, and Taylor, (2005) argued that auditing is a good example of service where prices indicate a quality signal. Moreover, the independence of the audit committee also influences the opportunities for financial statement fraud. Beasley,Carcello, Hermanson, & Lapides, (2000), and Robinson (2002) identify the relationship between the independence of audit committee members and the incidence of fraud.

Furthermore, the level of audit committee expertise in financial matters can also reduce the opportunity to cheat financial statements. The effectiveness of control can be caused by the quality of the board of commissioners and audit committee which can be seen from the background and financial expertise. Companies that have accounting and financial experts in management and audit committees will have little possibility of accounting irregularities. The ineffectiveness of internal control caused by the lack of audit committee expertise shows a positive relationship (Prayatna et al, 2014).

Other researchers also stated some proxies of opportunity that has a negative and significant impact of fraudulent financial reporting that has an important factor in preventing fraudulent financial reporting. The proxies are audit committee members (Omar & Yusof, 2018), audit committee independence (Nindito, 2018; Pramana et al, 2019), and audit committees, independent commissioners and the number of audit committee meetings also have a negative effect (Rengganis et al. 2019).

Based on the above, it can be concluded that the higher the opportunity, the higher the fraudulent financial statements will increase. The opportunity will be influenced by audit quality, audit committee independence, audit committee expertise level. It is formulated with H2 hypothesis.

H2: There is a relationship between the influence of the opportunity to commit fraud on fraudulent financial statements.

2.3 Pressures and Financial Statement Fraud

The pressure is one of the causes of fraud. Pressure or motivation is related to the effort to achieve a goal that is the interaction of individuals with the situation (Robin and Judge, 2007). The motivation for fraud is a financial problem, either in the form of financial needs to improve the status, financial problems due to personal problems or due to changes in external business (Cressey, 1953). CAlbrecht, C.Albrecht, and Dolan, 2007) stated that incentives are the main motivation for fraudulent financial reporting. Financial pressure is the most common type of pressure to commit fraud (Zimbelman et al, 2014). Managers' intent to commit fraud in financial reporting has a significant positive impact on the actions of managers performing fraudulent financial reporting (Ghozali, Achmad, & Pamungkas, 2019)

Financial stability is one proxy for the pressure of fraud in this study. The effect of pressure on fraud is proven by research conducted by Persons (2006) which stated that a company's high profitability will reduce the possibility of the company to commit fraud. Profitability describes the company's financial stability. When profitability is good, the company has good financial stability so that manager pressure is lighter that makes the probability of fraud shrink. With regard to the motives for fraud, it was found that financial difficulties were positively and significantly related to financial statement fraud while family ownership was negatively and significantly related to financial statement fraud (Hasnan, 2013). Moreover, external pressure is also a possible cause of fraud. A company that needs external funds to remain competitive will manage earnings compared to companies that do not need external funds (Dechow et al., 1996). When increasing external financing needs for companies to remain competitive, managers will experience greater pressure.

Furthermore, pressure can also be felt when a company's manager's performance affects the manager's wealth or personal financial need. Skousen et al. (2009) found that managers were likely to commit fraud if their share ownership in the company increased. The greater their ownership, the greater the influence of the company's performance on their wealth. Greater pressure makes the possibility of fraud increase. Finally, pressure can also come from financial targets that are difficult to achieve. Summers and Sweeney (1998) found that the greater financial targets indicated by the return on assets in the previous year, the higher the probability of the company to commit fraud. When financial targets are greater, managers will experience greater pressure because targets are more difficult to achieve. Greater pressure makes the possibility of fraud increase.

Moreover, other researchers also stated some proxies of pressure that has a significant impact on fraudulent financial reporting. The important proxies are Cash flow free (Nindito, 2018) and financial target (Rengganis et al., 2019). Two fraud-sensitive financial ratios are sales to the total assets and equity to the total assets ratios (Nezamodin & Razieh, 2019).

It can be concluded that when the greater the pressure felt, the more likely a person is a fraud. The pressure will be greatly influenced by Financial stability, External pressure, Personal financial need, and Financial targets. it is hypothesized as follows;

H3: Pressure affects the increase financial statement fraud.

2.4 Company Size, Industry Risk and Financial Statement Fraud

Many factors can trigger fraudulent financial statements both internally and externally. The Fraud Triangle model does not fit all situations and it is contextual (Wells, 2005). It means that there are external factors that influence the relationship between these variables. In addition, there is an inconsistent relationship between the triggers of financial statement fraud. Industrial Risk and Company Size are suspected to be important factors as a moderating factor in financial statement fraud.

Companies that have a larger size will tend to be smaller to commit accounting fraudulent compared to smaller companies. Large companies will have better stability and predictable operations, which can lead to small prediction errors (Gu et al, 2002). Large companies usually have a strong internal control system compared to smaller companies; they have more frequent disclosures, better reporting practices, followed by analysts, and closely monitored by the public (Elayan et al, 2008). Furthermore, some studies implied that compliance between larger companies is more common (Laing & Weir, 1999) and business size may influence the elements that decide the long-term relationship orientation (Redondo & Fierro, 2007). Adam et al. (2016) also stated that company size has a significant effect on enterprise risk management disclosure.

Moreover, industry risk is also thought to be a moderating factor. The quality of corporate financial reporting also depends on the company's external risk factors in the form of environmental risk, namely industry portfolio risk or industry classification risk because accounting policies and management choices may differ due to cross-industry. Financial indicators may be more sensitive in some industries (Pagalung, 2006; Gu et al., 2002). Previous studies implied that further macro-level measures such as company size and industry sector are generally ignored (Burke, 2000). Doinea (2012) also stated that the industry as a potential risk factor is inherent in his study of financial statement fraud factors. The manufacturing industry is suspected to have a high level of vulnerability to fraud. It can be concluded that Industrial Risk and Company Size are suspected to be important factors as a moderating occurrence of fraudulent financial statements which are formulated in the following hypothesis.

H4a: Company size moderates the relationship of Pressure, Opportunity, and Rationalization on Financial Statement Fraud.

H4b: Industry Risk moderates the relationship of Pressure, Opportunity, and Rationalization on Financial Statement Fraud.

3. Research Method

3.1 Data Sources and Research Samples

Secondary data were collected from Bloemberg Data Base, IDX and OJK RI. The population in this study is companies listed on the Indonesia Stock Exchange in the moving year. By using a sample of companies in 2011-2017, there were 28 companies indicated financial statement fraud and 28 companies indicated financial statement fraud.

The companies indicated by Fraud were collected from Bapepam and OJK RI from 2011-2017. Fraud companies are listed based on a list of companies that have been sanctioned by BAPAPEM and OJK. The companies that are not

indicated fraud are control companies that are matched by year, asset size, industry and trading market in the year in which financial reporting fraud is not detected. This is consistent with the statements that using a paired design reduces the choice of sample bias from oversampling (Dechow et al., 1996; Beasley, 1996). One fraud company is matched with five non-fraud companies, except when the number of companies in the industry is not enough (Lou, Y., & Wang, M., 2009).

Based on the existing criteria, the samples in this study are as follows:

Table 1. Sample criteria

Company Groups	**Criteria**	**Amount**
Fraud Indication	Data Bapepam & OJK (2011-2017)	28 Companies
Non Fraud Indication	Similar Companies (Year, Asset Size, Industry)	28 Companies
Sample Total		56 Companies

Source: Data processed

3.2 Operational Definitions and Variable Measurements

Table 2. Variables and measurements

Variable	**Variable /Proxy**	**Proksi (Acronym)**	**Measurement**	**Data Source**
Fraudulent Financial reporting	Fraudulent Financial reporting	FFR	A Dummy Variable coded 1 if the firm issued fraudulent financial reporting; and 0 otherwise.	Bapepam and OJK
Pressure	Financial Stability	SALTA SALAR ACHANGE SCHANGE NPM	Sales / Total Assets Sales / Accounts Receivable Asset Change (Y-Y1) Sales Change (Y-Y1) Net Profit Margin	Bloomberg
	External Pressure	LEV	Total Debt / Total Assets	Bloomberg
	Personal Finacial Need	OSHIP	The cumulative percentage of ownership in the firm held by insiders.	Bloomberg
	Financial Target	ROA	Return on Assets	Bloomberg
Opportunity	Audit Quality	AUDQ	Big 4 vs Non Big 4	IDX
	Audit Committee	INDE	The percentage of audit committee members who are independent of the company.	IDX
	Audit Committee Expert	EXPERT	Indicator variable with the value of 1 if audit committee includes no financial expertise directors	IDX
Rationalization	Asimetri Informasi	BID-ASK	Diff. highest buy and lowest sell of shares	Bloomberg
	Related Party Transaction (RPTs)	RPTs (%)	Sales about Related Party Transaction scaled by Total Sales.	IDX
	Change in AR & Director	ARCHANGE DCHANGE	AR Change (Y-Y1) Dir. Change (Y-Y1)	Bloomberg IDX
	Founder On Board	FOUND	% Firm founders on Board Directors	IDX
Moderation	Size	LSize	Logaritma Total Asset	Bloomberg
	Industry Risk	Ind	A Dummy Variable coded 1 if Manufacture ; and 0 otherwise.	IDX

Source: Data processed

3.3 Analysis Method

Data were analyzed by inferential analysis, Difference T-Test and Logistic regression analysis. It is analyzed using SPSS Software.

4. Results & Discussion

4.1 Results

4.1.1 Data Description

The data description is shown in Table 3.

Table 3. Descriptive statistics

Proxy	N	Minimum	Maximum	Mean	Std. Deviation
SALTA	56	.04	40.37	6.4330	7.80306
SALAR	56	.04	226.14	18.4659	41.49247
ACHANGE	56	.00	546.20	28.2638	83.39418
SCHANGE	56	.00	591.23	35.9671	85.56596
NPM	56	.00	219.80	23.9302	54.42839
LEV	56	.04	67.50	9.3141	13.34837
OSHIP	56	.00	41.56	1.4975	6.11616
ROA	56	.00	36.90	5.3670	8.16721
AUDQ	56	.00	1.00	.0714	.25987
AUIND	56	.00	100.00	42.8370	32.72953
AUEXP	56	.00	100.00	42.1137	35.08457
RPT	56	.00	100.00	8.9743	23.14874
DCHANGE	56	.00	1.00	.1607	.37059
ARCHANGE	56	.00	1321.48	57.2970	185.83461
BID-ASK	56	.26	31.16	6.5498	7.51486
Valid N (listwise)	56				

Source: SPSS Output

Based on table 3, it can be seen that the number of samples is 56 with 15 independent variables. The highest average on ARCHANGE is 57.2970 and the lowest average on AUDQ is 0.0714.

4.1.2 Logistic Regression Analysis

4.1.2.1 Regression Equation I

The results of first regression logistics test describe in Table 4.

Table 4. Logistic regression test I result

Proxy		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	SALTA	.027	.048	.316	1	.574	1.027
	SALAR	-.008	.009	.753	1	.385	.992
	ACHANGE	.010	.006	3.123	1	.077	1.010
	SCHANGE	.001	.006	.029	1	.865	1.001
	NPM	.002	.007	.087	1	.768	1.002
	LEV	-.006	.025	.054	1	.816	.994
	OSHIP	-.192	.131	2.133	1	.144	.825
	ROA	-.144	.065	4.992	1	.025	.866
	AUDQ	-.451	1.350	.112	1	.738	.637
	AUIND	-.019	.013	2.009	1	.156	.982
	AUEXP	-.010	.011	.824	1	.364	.990

RPT	.008	.017	.210	1	.647	1.008
DCHANGE	.436	.970	.202	1	.653	1.546
ARCHANGE	-.012	.007	2.790	1	.095	.988
BID-ASK	.015	.054	.076	1	.783	1.015
Constant	2.010	1.190	2.854	1	.091	7.467

Note: Hosmer and Lemeshow Test: Chi-square = 17.544, Sig. = 0.585

Overall Model Fit Test : -2 Log Likehood Block Number = 0 is 77.632,

-2 Log Likehood Block Number = 1 is 60.089

Nagel Karke R Square : 0,359

Cox & Snell R Square :0,269

Omnibus Test: 0.287

Source: Data Processed

The first regression equation is described as follows:

Fraud = 2.010 + 0.027 SALTA - 0.008SALAR + 0.010ACHANGE + 0.001SCHANGE + 0.002NPM - 0.006 LEV - 0.192OSHIP - 0.144ROA - 0.451AUDQ - 0.019AUIND - 0.010AUEXP + 0.008RPT + 0.436DCHANGE - 0.012ARCHANGE + 0.015BID-ASK + e

Based on Table 4, it can be seen from the results of the Hosmer and Lemeshow test, the Chi-square value is of 17.466 with a sig of 0.855. It means that the model is able to predict the value of observation. Comparison of the overall value of the regression model for a significant decrease of -2 Log Likelihood Block Number = 0 of 77,632 to 60,089 in the model -2 Log Likelihood Block Number = 1. It shows that the regression model by including all independent variables is better or the model hypothesized fit with data.

Model accuracy prediction can also use classification matrices that calculate true and false estimation values on the dependent variable. The results of the classification test are presented in table 5. Based on Table 5, it can be seen that overall 71.4% of the sample can be predicted accurately by this logistic regression model. The high percentage of accuracy of the classification table supports the absence of significant differences in the prediction data and observational data that shows a good logistic regression model.

Table 5. Classification test result

	Observed		Predicted		
			Fraud		Percentage Correct
			0.00	1.00	
Step 1	Fraud	0.00	20	8	71.4
		1.00	8	20	71.4
	Overall Percentage				71.4

Source: SPSS Output

Based on Table 4, it shows that only 3 (three) variables are significant, namely ACHANGE, ROA, and ARCHANGE. ACHANGE has a coefficient of 0.010 with a significance of 0.077 (sig 10%), ROA has a coefficient (0.144) with a significance of 0.025 (sig 5%), and ARCHANGE has a coefficient (0.012) with a significance of 0.095 (sig 10%). While other variables are not statistically significant to the detection of financial statement fraud.

4.1.2.2 Regression Equation II

In this second test the interaction model between the significant variables is used in first testing the logistic regression equation with the company size which proxied by Ln Asset (ASS). The result can be seen in Table 6.

Table 6. Result of company size interaction

Variables		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	ACHANGE	.092	.062	2.189	1	.139	1.097
	ROA	-.210	.182	1.332	1	.248	.810
	ARCHANGE	-.024	.026	.877	1	.349	.976
	ACHG_ASS	-.013	.009	2.056	1	.152	.987
	ROA_ASS	.018	.032	.338	1	.561	1.019
	ARCHG_ASS	.003	.005	.449	1	.503	1.003
	Constant	.628	.402	2.434	1	.119	1.873

Note: Hosmer and Lemeshow Test: Chi-square = 3.588, Sig. = 0,892

Overall Model Fit Test: -2 Log Likehood Block Number = 0 is 77.632,

-2 Log Likehood Block Number = 1 is 64.491

Nagel Karke R Square: 0,209

Cox & Snell R Square:0,233

Omnibus Test: Chi-square = 13.141, Sig. = 0,041

Classification Test =73,2%

Source: Data Processed

The second logistic regression model tested is as follows:

Fraud = 0.628 + 0.092 ACHANGE - 0.210 ROA - 0.024 ARCHANGE - 0.013 ACHG_ASS + 0.018ROA_ASS + 0.003ARCHG_ASS + e

It can be seen in Table 6, the results of the Hosmer and Lemeshow test, the Chi-square value of 3,588 with sig 0,892. It means that the model is able to predict the value of observation because it matches the observational data. There is a significant decrease of -2 Log Likelihood Block Number = 0 by 77,632 to 64,491 in the -2 Log model Likelihood Block Number = 1. It shows that the regression model by including all independent variables is better or the model is hypothesized fit with the data.

Overall 73.2% of the sample can be predicted accurately by this logistic regression model (Table 6). The high percentage of accuracy of the classification table supports the absence of significant differences in the prediction data and observational data that shows a good logistic regression model. Table 6 also shows that after interaction with company size there is no statistically significant variable in the detection of financial statement fraud. It means that the company size did not lead to fraud in the sample companies.

4.1.2.3 Regression Equation III

In this third test the interaction model between the significant variables is used in first testing the logistic regression equation with the company type that is proxied by IND.

Table 7. Result of company type interaction

Variables		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	ACHANGE	.007	.006	1.474	1	.225	1.007
	ROA	-.122	.058	4.497	1	.034	.885
	ARCHANGE	-.007	.008	.710	1	.399	.994
	ACHG_IND	-.018	.026	.506	1	.477	.982
	ROA_IND	.059	.086	.466	1	.495	1.061
	ARCHG_IND	.001	.011	.006	1	.938	1.001
	Constant	.648	.386	2.815	1	.093	1.912

Hosmer and Lemeshow Test: Chi-square = 10.391, Sig. = 0,167

Overall Model Fit Test: -2 Log Likehood Block Number = 0 is 77.632,

-2 Log Likehood Block Number = 1 is 66.885

Nagel Karke R Square: 0,175

Cox & Snell R Square:0,233

Omnibus Test: Chi-square = 10.748, Sig. = 0,096

Classification Test: 66,1%

Source: Data Processed

The third logistic regression model tested is as follows:

Fraud = 0.648 + 0.007 ACHANGE - 0.122 ROA + 0.007 ARCHANGE - 0.018 ACHG_IND + 0.059ROA_IND + 0.001 ARCHG_IND + e

Based on the results of the Hosmer and Lemeshow test the Chi-square value of 10.391 was obtained with a sig of 0.167 (Table 7). This shows that the model is able to predict the value of observation. There is a significant decrease in the value of -2 Log Likelihood Block Number = 0 by 77,632 to 66,885 in the -2 Log model Likelihood Block Number = 1. It shows that the regression model by including all independent variables is better or the model is hypothesized fit with the data.

Overall 66.1% of the sample can be predicted accurately by this logistic regression model. The high percentage of accuracy of the classification table supports the absence of significant differences in the prediction data and observational data that shows a good logistic regression model. Based on Table 7, it shows that after an interaction with the industrial company type, there is no statistically significant variable on the detection of fraudulent financial statements. It means that the type of company industry did not trigger fraud in the sample companies.

4.1.3 Additional Testing (Independent Sample T-Test)

Additional testing was performed by using the Independent Sample T-Test to test whether each of the independent variables in this study had significantly different characteristics in the two sub-sample groups. Based on table 8, it can be concluded that only the financial target variable (ROA) is significantly different in the subsample of companies that commit fraud and that do not commit fraud. The higher the ROA, the higher the potential for fraudulent financial statements in the company. The results support the results of hypothesis testing using logistic regression analysis can be seen in appendix 1.

4.2 Discussion

4.2.1 The Effect of Financial Stability on Fraud's Financial Statement

Based on Table 4, the result of testing Financial stability, only the ACHANGE (changes in asset) proxy is significant 0f 0.077 with a positive coefficient of 0.010, while other proxies, namely; SALTA, SALAR, SCHANGE, and NPM were not significant. The results of this study support previous research which implied Financial stability is one proxy for the fraud pressure. The effect of pressure on fraud is proven by Persons (2006) that implied a company's high profitability will reduce the possibility of the company to commit fraud. Profitability describes the company's financial stability. When profitability is good, the company has good financial stability so that the perception of manager pressure is lighter.

With regard to the motive for fraud, it was found that financial difficulties were positively and significantly to financial statement fraud (Hasnan, 2013). This result is also in line with the statement of Skousen et al. (2009) that implied managers pressure to commit financial statement fraud when financial stability is threatened by economic conditions, industry, and operating entities situation. This means that financial instability will trigger violations by the management. Finally, it also supports the result of previous studies that two fraud-sensitive financial ratios are sales to the total assets and equity to the total assets ratios (Nezamodin & Razieh, 2019).

4.2.2 Effect of Personal Financial Needs on Financial Statement Fraud

The regression coefficient of Personal Financial Need with the proxy of management ownership (OSHIP) is -0.192 with a significance of 0.144, it can be concluded that personal financial need (OSHIP) has no significant effect on the Financial Statement Fraud. This result is likely due to the low average managerial ownership (1,49%) in the sample companies.

The result is not in line with Skousen et al. (2009) which stated that managers are likely to commit fraud if their share ownership in the company increases. Pressure can also be felt when the company's manager's performance affects the manager's wealth or the need for personal pressure. The greater the manager's share ownership, the greater the influence of the company's performance on their wealth. Managers will feel greater stress when they have greater ownership that makes the possibility of fraud increase. Moreover, Low managerial ownership indicates that there has been a clear separation between shareholders as owners who control the company course and as managers of the company.

4.2.3 Effect of External Pressure on Personal Financial Needs

Leverage (LEV) variable regression coefficient is negative (0.006) with a significance of 0.816 so it can be concluded that LEV has no effect on financial statement fraud. This means that the size of the pressure from external

parties does not increase the potential for management to commit financial statements. This result is likely due to the low average leverage (9.31%) in the sample companies.

The result is not in line with the opinion of Dechow et al, (1996) which stated that a company that needs external funds to stay competitive will manage earnings compared to companies that do not need external funds. The result is also not in accordance with Skousen et al. (2009) which concluded that external pressure (LEV) has a positive effect on financial statement fraud. If increasing external financing needs for companies to remain competitive, managers will experience greater pressure will makes the possibility of fraud increase. This result also does not support Lou and Wang (2009) which stated that when a company experiences external company pressure, it can identify a greater risk of material misstatement due to fraud.

4.2.4 The Effect of Financial Targets on the Financial Statement Fraud

The coefficient of ROA is negative 0.144 with a significance of 0.025, it can be concluded that the financial target (ROA) has a significant negative effect on financial statement fraud. This means that the smaller the level of ROA the company is targeting, it will influence management to commit fraudulent financial statements.

The result supports previous research that greater pressure makes the possibility of fraud increasing. Summers and Sweeney (1996) found a greater financial target indicated by the return on assets of the previous year, the higher the probability of a company to commit fraud. When financial targets are greater, managers will experience greater pressure because targets are more difficult to achieve. This study also supports the findings of Skousen et al. (2009) which concluded that financial targets (ROA) affect financial statement fraud. The manager considers that the ROA target is a financial target that is difficult to achieve so the size of the ROA target triggers the occurrence of fraudulent financial statements by management. Finally, it is also supported that financial target is one factor that influences Financial Statement Fraud (Rengganis et al. 2019).

4.2.5 Effect of Nature of Industry on Financial Statement Fraud

The Nature of Industry coefficient which is proxied by ARCHANGE is negative (0.012) with a significance value of 0.095. It means that the smaller the ratio of changes in accounts receivable will trigger management to commit financial statements. The result supports Summers and Sweeney (1998) which concluded that the nature of industry has a positive effect on financial statement fraud. The influence of the nature of industry on the financial statement of fraud in this study indicates that the companies included in the fraud sub-sample group and the non-fraud sub-sample have different industrial characteristics, so that Receivable can be used to detect the occurrence of fraudulent financial statements within the company.

4.2.6 Effect of Effective Monitoring on Financial Statement Fraud

Opportunities (effective monitoring) is proxied by Audit Quality (AUDQ), percentage of independent audit committee members (AUIND), and financial capacity of audit committee members (AUEXP). These three proxies have the significance of 0.738, 0.156 and 0.364, it can be concluded that effective monitoring has no effect on financial statement fraud. This means that the high or low effectiveness of corporate supervision will not trigger the potential for management to commit fraudulent financial statements.

The results of the study do not support statements that the opportunity to commit fraud will increase along with poor audit quality. As an external corporate governance mechanism, auditors can help prevent fraudulent financial statements. Companies involved in financial reporting fraud have a significantly poor corporate governance structure where lower audit quality and outside directors appear to be overcommitted (Hasnan et al, 2013). It is also not support Francis and Schipper, (1999) where it is possible that the reputation and expertise of Big 4 offices is not standard and uniform throughout the world, but varies from one place to another together with the specific client at the place.

This study also does not support statement that the audit committee independence also affects the opportunity for financial statement fraud. Beasley et al. (2000), and Robinson (2002) identify the relationship between the independence of audit committee members and the fraud incidence. Finally, it also does not support statement that the audit committee expertise in financial matters can also reduce the opportunity to cheat financial statements. Companies that have accounting and financial experts in management and audit committees will have little possibility of accounting irregularities. The ineffectiveness of internal control caused by the lack of expertise of the audit committee shows a positive relationship (Prayatna, 2014).

Finally, it also does not support that audit committee members is an important factor in preventing fraudulent financial reporting (Omar & Yusof, 2018), and it is not in line with the statement that audit committee independence

(Nindito, 2018; Pramana et al, 2019). It is also not in line with Rengganis et al, 2019 that audit committees, independent commissioners and the number of audit committee meetings have a negative effect on fraudulent financial reporting.

4.2.7 The Effect of Rationalization on Financial Statement Fraud

Rationalization was proxied by Related Party Transaction (RPT), Director Change (DCHANGE), company founder in director (FOUND), and Information Asymetry (BID-ASK). There were no company founders acting as directors in the sample companies, so founder in director (FOUND) was issued. RPT, DCHANGE, and BID-ASK Proxies have a significance of 0.647, 0.653, and 0.783.thus the rationalization proxied by these three proxies has no effect on financial statement fraud. This means that a change in transactions with interested parties, a change of company directors, and Informatin Asymetry cannot be used to detect fraud in the company's financial statements. This study does not support the statement that the auditor's change has a significant impact on Financial Statement Fraud (Pramana et al, 2019).

The results of this study do not support statement of a lot of fraudulent financial statements involved related party transactions (RPT). An alternative view is that RPT is rational and beneficial for companies in developing countries. A company is more profitable if a member of a business group because it acts as an intermediary between individual entrepreneurs and imperfect markets (Hasnan, 2013). Therefore, it becomes an empirical question in developing countries, whether the RPT adds value and helps companies to avoid financial statement fraud or whether it is positively related to financial statement fraud.

In addition, this research also does not support statement about the relationship of information asymmetry and financial statement fraud as opinion of Stalebrink & Sacco, 2007; Dye, 2007; Elayan et al, 2008; and Veronica & Bachtiar, 2005). Information asymmetry will encourage managers to present information that is not true, especially if the information is related to manager performance measurement.

4.2.8 The Effect of Company Size Moderation on the Financial Statement Fraud

The results of interactions testing can be seen in table 5. It can be seen that all the variables in the equation are not significant. Thus the result of this study does not support Gu et al (2002) and Elayan et al (2008). Large companies will have better stability and predictable operations, which can lead to small prediction errors (Gu et al, 2002). Large companies usually have a strong internal control system compared to smaller companies; have more frequent disclosures, better reporting practices, followed by developments by analysts, and monitored by the public more closely (Elayan et al, 2008; Adam et al., 2016).). It does not support previous studies that implied compliance between larger companies is more common (Laing & Weir, 1999) and business size may influence the elements that decide the long-term relationship orientation (Redondo & Fierro, 2007). Based on these results it is known that the company size will not be a trigger for committing fraud in the sample company, but maybe significant in other companies' samples.

4.2.9 The Effect of Moderation on the Company Industry Type on the Financial Statement Fraud

The testing of the interaction of significant variables with the company industry type that is proxied by IND can be seen in table 6. Based on Table 6, only ROA variables are significant of 0.034 with a coefficient of 0.122, however, after interacting with industry types, these variables become insignificant.

Thus the result does not support Pagalung, 2006; Gu et al, 2002; Burke, 2000; and Doinea, 2012. Industrial risk is not also a moderating factor. The quality of corporate financial reporting does not depend also on the company's external risk factors in the form of environmental risk. Financial indicators are not more sensitive in some industries. The industry is not a potential risk factor inherent in its study of the financial statement fraud factor in the sample company, but it may be significant in other companies' samples.

5. Conclusions and Implication

5.1 Conclusions

- The purpose of this study is to examine the risk factors that influencing financial statement fraud. This study can be regarded as an important study that identifies other fraud factors that influence financial statement fraud in a developing country which has different patterns from develop countries.
- Information Asymmetry, industry risk, and company size are some indicators added to examines these fraud factors. It examines the interaction of industry risk and company size on the relationship between rationalization, pressure, and opportunity on financial statement fraud for the detection of the fraud risk in financial statements.

- The testing the hypotheses performed using logistic regression analysis can be concluded as follows:

- Rationalization proxied by BID-ASK, RPT, and DCHANGE do not affect financial statement fraud that means this variable are not able to detect potential fraud that occurs in the company.

- Financial stability (ACHANGE) has a significant positive effect on financial statement fraud, however, the others' proxies which are SALTA, SALAR, SCHANGE, and NPM, do not affect. Moreover, the Financial target (ROA) has a significant negative effect on financial statement fraud, however, Personal financial need (OSHIP) and External pressure (LEV) have no significant effect on financial statement fraud.

- Opportunities proxied by nature of industry have a significant negative effect on financial statement fraud. This result indicates that the lower the ratio of changes in trade receivables will trigger management to commit fraudulent financial statements. Nevertheless, the effective monitoring proxy, namely AUDQ, AUIND, and AUEXP, does not affect the fraudulent of financial statements or it is not able to detect the potential for fraudulent financial statements.

- The interaction effect results using company size and company industry type do not affect financial statement fraud. Moreover, the T-test results show that only the financial target variable (ROA) is significantly different in the subsample of companies that commit and do not commit fraud.

5.2 Implications

- This research contributes to the fraud literature, especially the Fraud Triangle theory. Considering fraud is not universal and has a complex phenomenon, this study has been explored other elements of fraud. It can be used to detect risk factors for fraud in financial statements occurring in developing countries. Moreover, it also contributes to the parties concerned, such as auditors, in assessing the company's potential for fraud.

- It also contributes to the preparation, development of regulations and professional organizations on early warning signs, fraud prevention measures, awareness-raising of public fraud and organizational risk management, as well as providing a basis for good corporate governance related to internal control to deliver value enhancement by fraud control in a developing country.

5.3 Limitations and Suggestions

There are several limitations that might affect the results of the study, including:

- The variables used to detect financial statement fraud are limited to the Fraud Triangle Theory. It is recommended to add an independent variable that can be used to detect the occurrence of financial statement fraud, such as earnings management, income smoothing, and unexpected audit fees.

- Samples of companies indicated by Fraud are limited to companies getting sanctions from Bapepam and OJK for presenting financial statements. It is recommended to explore other sampling methods of fraud indicating companies.

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Appendix

Appendix 1. Result of independent sample T-Test

	Fraud*	N	Mean	Mean Difference	T statistic	Sig-(2-tailed)
SALTA	Non Fraud	28	6.3461	-.17393	-.083	.934
	Fraud	28	6.5200			
SALAR	Non Fraud	28	22.9029	8.87393	.798	.429
	Fraud	28	14.0289			
ACHANGE	Non Fraud	28	22.0657	-12.39607	-.553	.583
	Fraud	28	34.4618			
SCHANGE	Non Fraud	28	29.1086	-13.71714	-.596	.553
	Fraud	28	42.8257			
NPM	Non Fraud	28	27.6421	7.42393	.507	.614
	Fraud	28	20.2182			
LEV	Non Fraud	28	7.7579	-3.11250	-.871	.388
	Fraud	28	10.8704			
OSHIP	Non Fraud	28	2.3861	1.77714	1.089	.281
	Fraud	28	.6089			
ROA	Non Fraud	28	7.7189	4.70393	2.232	.030
	Fraud	28	3.0150			
AUDQ	Non Fraud	28	.0714	.00000	.000	1.000
	Fraud	28	.0714			
AUIND	Non Fraud	28	48.8111	11.94821	1.377	.174
	Fraud	28	36.8629			
AUEXP	Non Fraud	28	44.9411	5.65464	.600	.551
	Fraud	28	39.2864			
RPT	Non Fraud	28	7.9464	-2.05571	-.330	.743
	Fraud	28	10.0021			
DCHANGE	Non Fraud	28	.1786	.03571	.358	.722
	Fraud	28	.1429			
ARCHANGE	Non Fraud	28	85.6264	56.65893	1.144	.258
	Fraud	28	28.9675			
BID-ASK	Non Fraud	28	5.6150	1.86964	0.930	.357
	Fraud	28	7.4846			

Source: Data Processed