FRAUD TRIANGLE ANALYSIS IN DETECTING FRAUDULENT FINANCIAL STATEMENT USING FRAUD SCORE MODEL

[1]*Mariati*, [2]*Emmy Indrayani**
[1,2]*Faculty of Economics, Universitas Gunadarma*
Jl. Margonda Raya 100, Depok 16242
[1]mmariati995@gmail.com, [2]emmyindra@gmail.com

Abstract

Company's financial condition reflected in the financial statements. However, there are many loopholes in the financial statements, which can become a chance for the management and certain parties to commit fraud on the financial statements. This study aims to detect financial statement fraud as measured using fraud score model that occurred in issuers entered into the LQ-45 index in 2014-2016 with the use of six independent variables are financial stability, external pressure, financial target, nature of industry, ineffective monitoring and rationalization. This study using 27 issuer of LQ-45 index during 2014-2016. However, there are some data outlier that shall be removed, thus sample results obtained 66 data from 25 companies. Multiple linear regression analysis was used in this study. The results showed that the financial stability variables (SATA), nature of industry (RECEIVBLE), ineffective monitoring (IND) and rationalization (ITRENDLB) proved to be influential or have the capability to detect financial statement fraud. While the external pressure variables (DER) and financial target (ROA) are not able to detect the existence of financial statement fraud. Simultaneously all variables in this study were able to detect significantly financial statement fraud.

Keywords : *External Pressure, Financial Stability, Financial Target, Fraud Score Model, Fraud Triangle, Ineffective Monitoring, Nature of Industry, Rationalization*

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INTRODUCTION

The case of corruption procurement electronic identity card or e-KTP card is the hottest news throughout the year 2017. Suspected losses suffered by the State because the case reached Rp 2 trillion. Corruption is one form of fraud. Another form of fraud is a fraudulent financial report which in the event of such fraud leads to greater losses compared to corruption.

Financial statements can be used as a means of communication with stakeholders, for example if an investor will invest in the company then the investor requires financial data contained in the financial statements. Because of the importance of information contained in the financial statements to make managers motivated to improve the performance of the company so the existence of the company will remain intact. Because of these motivations, it is not uncommon for managers to commit fraud in the

financial statements in accordance with what they want so that the information in the report can mislead the users of financial statements in making decisions.

According to Bologna, and Lindquist (1987), cheating is a criminal fraud that intends to benefit the deceiver. The criminal here means any wrongdoing done with malicious intent. And from the evil act the offender gain benefits and can harm the victim financially. Although there is no specific information in Indonesia yet, according to the report of the Association of Certified Fraud Examiners (ACFE), in 2016 the losses resulting from fraud in the United States are about 5% of revenues or $ 6.3 billion. Of these fraudulent cases, the most common form of fraud is the asset misappropriation, occurring in over 83% of cases but causing the least loss with a median of $ 125,000. The case of corruption is in the middle, with 35.4% of cases and an average loss of $ 200,000. The least fraudulent form is fraudulent statements, resulting in less than 10% of the cases but the greatest loss is the median loss of about $ 975,000 (ACFE 2016).

In Indonesia, there are some accounting scandals that are quite damaging to the chain of trust between investors and management. An example is PT Kimia Farma which is engaged in pharmaceutical and has been a public company since 2001. The management of PT Kimia Farma inflates net income in the financial statements of Rp 36,000,000,000. PT Kimia Farma's share price dropped when the error was made public. Many things behind the management of fraud, among others, can occur because of the conflict of interest that occurs between management as an agent with investors as principal which often benefits one party resulting in the occurrence of financial statement fraud.

Fraudulent behavior in the presentation of financial statements is an important thing that must be considered so that these actions can be detected and eliminated. Research on fraud detection in previous financial reports has been done by Norbarani (2012) and Rachmawati and Marsono (2014). Both Norbarani (2012) and Rachmawati and Marsono (2014) used research sample from manufacturing company listed on the Indonesia Stock Exchange (BEI). This research use all factor in fraud triangle, pressure factor, opportunity, and rationalization.

The concept of fraud triangle was first introduced by Cressey in 1953 in Other People's Money: A Study in the Social Psychology of Emblezzlement. Cressey categorizes 3 general conditions that lead to cheating that is pressure / incentive, opportunity, and attitude / rationalization. The concept of fraud triangle is introduced in professional literature on SAS No. 99, Consideration of Fraud in a Financial Statement Audit. Variables of this fraud triangle could not simply be researched and thus require variable proxies. Proxies that can be used for this study include pressure proxyed with financial targets, financial stability and external pressure; Opportunity proxied by ineffective monitoring and nature of industry; Rationalization to be tested with bonus mechanism proxy. The desire of the company to ensure the company's operations continuity led to the company sometimes took a shortcut that is fraud. Based on the above description, the authors are interested to analyze and find empirical evidence about the influence of fraud risk factor according to fraud triangle. Specifically, this study aims to detect financial statement fraud as measured using fraud score model that occurred in issuers entered into the LQ-45 index in 2014-2016 with the use of six independent variables are financial stability, external pressure, financial target, nature of industry, ineffective monitoring and rationalization

LITERATURE REVIEW

Fraud Triangle Theory

Fraud triangle theory is an idea that examines the causes of cheating. This idea was first coined by Cressey (1953) called the fraud triangle. Fraud triangle explains the three factors present in every fraud situation: (1)Pressure, which is the incentive / pressure / need to do fraud. Pressure can cover almost anything including lifestyles, economic demands, and so on, including financial and non-financial, (2)Opportunity, the situation that opens the opportunity to allow a cheating to happen, (3)Rationalization is an attitude, a character, or a set of ethical values that allow certain parties to commit acts of cheating, or those in a pressing environment that makes them rationalize the act of fraud. All three of the above are illustrated in the following figure:

Figure 1. Fraud Triangle Theory by Cressey (1953)

Fraudulent Financial Fraud

The definition of a financial statement fraud according to the American Institute Certified Public Accountant (2002) is a deliberate act or omission that results in material misstatements in financial statements. Meanwhile, according to Elliott and Willingham (1980), define financial statement fraud from a different point of view. According to him, the financial statement fraud is a management fraud that is, "the deliberate fraud committed by management that injures investors and creditors through materially misleading". Thus, the term management fraud and financial statement fraud are often used interchangeably, but in general fraud is a deliberate act to harm the other side.

According to SAS No.99, financial statement fraud can be done by: (1)Manipulation, forgery, or alteration of accounting records, supporting documents of the financial statements drawn up, (2)A deliberate fallacy in the information that is significant to the financial statements, (3)Deliberately misusing principles relating to quantity, classification, presentation, or disclosure.

F-Score Model from Dechow

The model developed by Dechow, GE, Larson, and Sloan (2011) is a model built on the basis of a study from Beneish (1997 and 1999). This model incorporates discretionary accruals and variable variables and other variables that produce a

composite measure which it calls F-Score. Basically the F-Score size is based on various dimensions of variable, i.e. accrual quality, financial performance, non-financial performance, off-balance sheet activity and market-related variables. The F-Score is calculated using the following mathematical equations:

$$F - Score = \frac{Predicted\ Probability}{Unconditional\ Probability} \quad (1)$$

Where:

$$Predicted\ Probability = \frac{e^{predicted\ value}}{1 + e^{predited\ value}} \quad (2)$$

$$Predicted\ value = f\ (independent\ variable) \quad (3)$$

$$Unconditional\ probability = \frac{Number\ of\ misstated\ firm}{total\ population} \quad (4)$$

In building the model, first Dechow *et al.* (2011) identifies and selects independent variables to be included in the above equation. As already mentioned, there are five categories of variables to be taken into account: quality of accrual, performance, non-financial default balance sheet, and market incentive.

Theoretical Framework and Hypothesis Development

The financial statements of the company play a role to provide financial information to the parties concerned about the company's financial statements. However, according to Collins, Maydew and Weiss (1997), Francis and Schipper (1999) the relevance of the value of accounting information is declining over time (Rahman & Oktaviana, 2010). The information contained in the financial statements is no longer relevant to be used as a reference decision-making. This is due to fraudulent acts on the financial statements or financial statement fraud. Nguyen (2008) says that fraud is deliberately done by management to satisfy investors and creditors through a misleading financial report. In addition to investors and creditors, the auditor is one of the victims of the financial statement fraud (Nguyen, 2008).

When a company is in stable condition then its value will rise in the eyes of investors, creditors, and the public. According to SAS No. 99, managers face pressures to commit fraudulent financial statements when financial stability and / or profitability are threatened by the economic, industrial or operating circumstances of the operating entity (Skousen & Twedt, 2009). The company seeks to improve the company's good outlook by manipulating its asset information. Persons (1995) also stated that managers of cheating companies are usually less competitive than corporate managers who do not cheat in utilizing company assets to generate revenue. Therefore, sales to total assets ratio is used as a proxy for financial stability variables. The company's asset turnover rate for revenue generation is low so management will tend to cheat accounting to increase revenue.

Research conducted by Persons (1995) proves that the lower total assets turnover of a company, so that the greater tendency of the company to conduct fraudulent financial/ accounting reports. Based on the description, the research hypothesis is proposed as follows:

H1: financial stability can detect fraudulent financial statements

Companies often experience pressure from external parties. One of the pressures often experienced by company management is the need to secure additional debt or external financing sources in order to remain competitive, including research and

development financing and capital expenditures (Skousen & Twedt, 2009). To get loans from external parties, the company must be believed to be able to repay the loans it has earned. The leverage ratio measures the extent to which a company finances its business by comparing its own funds that have been deposited with the loan amount from the creditors. Excessively high debt usage will jeopardize the company because the company will be included in the extreme leverage category that is the company stuck in high debt level and difficult to release the debt burden.

Persons (1995) suggests that greater leverage may be associated with a greater likelihood of committing breaches of credit agreements and lower ability to obtain additional capital through loans. The statement was also reinforced by Lou and Wang (2009) stating that when companies are subjected to external pressure the company can be identified greater material misstatement risks due to fraud. Based on the description, the research hypothesis is proposed as follows:

H2: external pressure is able to detect fraudulent financial statements

In performing its performance, corporate managers are required to perform the best performance so as to achieve the planned financial targets. The ratio of earnings to total assets or Return on Assets is a measure of operational performance that is widely used to show how efficiently assets have worked (Skousen & Twedt, 2009). Summers and Sweeney (1998) report that ROA is significantly different between fraud firm and non-fraud firm (Skousen & Twedt, 2009). Return on Asset is used to measure the company's management in obtaining profit as a whole. The greater ROA obtained, the greater level of profit achieved by the company and the better the company's position in terms of asset use (Dendawijaya, 2005).

Widiyastuti's and Pamuji (2009) study proves that firms with large profits (measured by profitability or ROA) are more likely to earnings management than firms with small profits. However, the result of the study from Skousen and Twedt (2009) does not corroborate evidence that ROA affects the financial statement fraud. This research tries to prove that ROA have positive effect to financial statement fraud. Based on the description, the research hypothesis is proposed as follows:

H3: financial target is able to detect fraudulent financial statements

Nature of industry is the ideal state of the company in the industry. In the financial statements there are certain accounts where the amount of the balance is determined by the company based on an estimate, such as bad debts and obsolete inventory accounts. Summers and Sweeney (1998) note that accounts receivable and inventory require subjective assessments in estimating uncollectible accounts. Summers and Sweeney (1998), also stated that managers will focus on both accounts if they intend to manipulate the financial statements. Research conducted by Sihombing and Rahardjo (2014) shows that the ratio of companies in accounts receivable (RECEIVABLE) is able to detect fraudulent financial statements. However, other studies have different results, namely the total change of accounts receivable is not able to detect the fraudulent financial statements made by Skousen and Twedt (2009). Based on the description, the hypothesis is proposed as follows:

H4: nature of industry is able to detect fraudulent financial statements

The existence of an independent board of commissioners is expected to be more effective in corporate supervision and fraudulent practices can be minimized and with

the commissioner working with no relationship with shareholders, directors, management or other internal parties, he will conduct more independent oversight. The occurrence of fraudulent practices is one of the impacts of weak captains, giving an opportunity to agents or managers to behave defiantly by doing earnings management (Andayani, 2010). The board of commissioners is responsible for ensuring the implementation of corporate strategy, overseeing management in managing the company and requiring the implementation of accountability. This is in line with the Statement of Audit Standards (PSA) No.70 indicating that some fraudulent financial statements may arise from management dominance by an individual or small group, in the absence of controls compensating for such conditions, such as oversight by the board of commissioners or audit committee. Therefore, the effectiveness of supervision is proportioned to the proportion of independent board of commissioners (IND).

Research conducted by Kusumawardhani (2013), and Owens-Jackson, Robinson & Shelton (2009) states that proportion of independent commissioners is able to detect whether or not fraud financial statements that occur within the company. Research results prove that cheating is more common in firms with fewer external board members (Skousen and Twedt, 2009). However, the results of Skousen and Twedt (2009) do not corroborate the evidence that the ratio of independent board of commissioners influences the financial statement fraud. Based on the description, this research proposes hypothesis as follows:

H5: ineffective monitoring is able to detect fraudulent financial statements

Zandstra (2002) states that the main reason for the destruction of Enron is the failure of the board's functions in a moral and ethical way. Apostolou, Hassell, Webber and Sumners (2001) examines the characteristics of management and its influence in the control environment indicating that management characteristics are as important as operational factors, so the characteristics and ethical management are the main determinants for rationalization. Several studies have shown that undue emphasis on revenue projections and managers' attitudes toward financial reporting is a key indicator of fraudulent financial statements (Bell, T.B, Szykowny, S., & Willingham, J.J., 1991; Arens & Loebbecke, 1989). Earning management is a very common method of fraudulent financial statements. While Utomo (2011) states that bonus schemes provide incentives to company directors to make earnings management in order to maximize the bonus it receives.

In bonus contracts are known two terms namely bogey (lowest profit rate to get bonus) and cap (highest profit rate). If under bogey, there is no bonus earned by the manager if the profit is above the cap, the manager will not get an additional bonus. If net income is below bogey, managers tend to minimize profits, as well as if net income is above the cap. So only the net profit that lies between the bogey and the cap then the manager will try to raise the company's net profit. Consequently bonus schemes encourage managers to manipulate earnings to maximize their bonus receipts (Utomo, 2011). As a result managers tend to cheat by choosing accounting methods that can shift the profit from the future to the present. This is because managers prefer higher wages to the present. Based on the above description, this research proposes the following hypothesis:

H6: bonus mechanism is able to detect fraudulent financial statements

RESEARCH METHOD

This study examines fraudulent financial statements using fraud triangle on companies listed on the LQ-45 Index. The dimensions of the time of this study cover three years (2014-2016). The method of data collection in this study is by collecting financial statement data from 2014 to 2016, and this data can be obtained from www.idx.co.id. The sample selection criteria are (1) Companies listed in Indonesia Stock Exchange (BEI) vulnerable in 2016. (2) Companies listed in the LQ-45 index from 2014-2016. (3) Companies engaged in non-banking. (4) Companies that issue financial statements in Rupiah (Rp) from 2014-2016 and have been audited. There are two steps taken in this study, namely the sampling stage until the examination of the existence or absence of fraudulent practices of financial statements. The second stage of testing the hypothesis, namely investigating the factors that influence fraudulent financial statements based on triangle fraud to detect fraudulent financial statements using the F-Score Model from Dechow (2009). Model for F-Score:

$$F = Qa + Fp \quad (5)$$

Where,
F = Fraud Score
Qa = Accrual Quality
Fp = Financial Performance

Where,

$$Qa = \frac{(\Delta WC + \Delta NCO + \Delta FIN)}{ATS} \quad (6)$$

WC = (Current Assets – Current Liability)
NCO = (Total Assets – Current Assets – Investment and Advances) – (Total Liability – Current Liability – Long Term Debt)
FIN = Total Investment – Total Liabilities
ATS = (Beginning Total Assets + End Total Assets) / 2
WC : Working Capital
NCO : Non-current operating accrual
FIN : Financial Accrual
ATS : Average Total Assets

$$Financial\ Performance = Change\ in\ receivable + Change\ in\ inentories + Change\ in\ cash\ sales + Change\ in\ eranings \quad (7)$$

Where,
Change in receivable = ΔReceivable / Average Total Assets
Change in Inventory = ΔInventory / Average Total Assets
Change in Cash Sales = [(ΔSales / sales (t) – (ΔReceivable / receivable (t))]
Change in Earnings = [(Earning (t) / Average Total Assets (t)) – (Earning (t-1) / Average Total Assets (t-1))]

The second step is to investigate the factors that influence the practice of fraudulent financial statements. Before testing multiple linear regressions on the model, the classical assumption test steps were carried out, namely the normality test,

multicollinearity test, autocorrelation test, and heterescedasticity test. Furthermore, the accuracy of the regression function in estimating the actual value can be measured by the value of the Goodness of Fit. Strategically, the value of Goodness of fit can be measured from the coefficient of determination, the statistical value of F and the value of statistics t (Ghozali, 2013).

Model, Notation, Variable and Proxy

The mathematical model of the relationship between the dependent and independent variables is as follows:

$$F - Score = \alpha + \beta_1(SATA) + \beta_2(DER) + \beta_3(ROA) + \beta_4(RECEIVABLE) + \beta_5(IND) + \beta_6(ITERNDLB) + €$$

(8)

Table 1. Operational Definition Variables

No.	Notation	Variable	Proxy	Measurement
1.	SATA	Financial Stability	Total Assets Turnover	$SATA = \frac{\text{Total Sales}}{\text{Total Assets}}$
2.	DER	External Pressure	Debt to Equity Ratio	$DER = \frac{\text{total debt}}{\text{total equity}}$
3.	ROA	Financial Target	Return on Assets	$ROA = \frac{\text{Net Income before extraordinary t}}{\text{Total Asset t}}$
4.	RECEIVABLE	Nature of Industry	Total Change of Acc. Receivable	$RECEIVABLE = \left(\frac{\text{Receivable t}}{\text{Sales t}} - \frac{\text{Receivable t} - 1}{\text{Sales t} - 1}\right)$
5.	IND	Effective Monitoring	Ratio of Independance Boards	$IND = \frac{\text{Num. of Independent Boards}}{\text{Total of Boards}}$
6.	ITRENDLB	Rationalization	Net Profit Trend Index	$ITRENDLB = \frac{\text{Net Profit}_t}{\text{Net Profit}_{t-1}}$

RESULTS AND DISCUSSION

Outlier test in this research is conducted to know and eliminate samples of data that have extreme value, so that there is no bias in this research. Outliers are determined by looking at the Z-score on each variable that has a Z value above +2.5 and below -2.5. Outlier test results in the regression model used indicate the existence of 15 extreme data that must be removed from the data sample. So the number of data samples that initially 81 to 66 data company during the period 2014-2016.

Descriptive Analysis

The results of descriptive data can be seen as follows:

Table 2. Descriptive Statistics Analysis Results

VARIABLE	N	Minimum	Maximum	Mean	Std. Deviation
F_SCORE	66	-0.91	0.67	-0.0641	0.28606
SATA	66	0.13	1.58	0.7121	0.36950
DER	66	0.13	3.40	0.9926	0.71922
ROA	66	1.07	18.26	8.1762	4.42283
RECEIVABLE	66	-0.07	0.10	0.0100	0.03032

IND	66	0.25	0.60	0.3828	0.07336
ITRENDLB	66	0.22	2.09	1.0698	0.36095

During the study period, the average amount of financial statement fraud as measured by the fraud score model performed by the issuers included in the LQ-45 index of -0.0641 indicates that the issuer being the sample in this study does indicate the absence of fraud in the report submission. The issuer's finance because the value of fraud score below 1. The average value of total sales divided by assets is 0.7121 greater than the standard deviation of 0.36950 indicates that the average sample company is able to sell 0.7121 from the company's asset.

The level of leverage or the ability of the company in obtaining funds from third parties to obtain additional capital gain in this study obtained the average rate of repayment capability by using own capital of 0.9926. ROA level owned by all sample companies in this study has an average value of 8.1762%. In this research, the average nature of industry value is 0.0100 or 1%. This indicates that the level of corporate receivables that enter into the LQ-45 index is very conservative in determining the receivable policy when viewed from the average value. Inffective Monitoring which is reflected by the existence of independent board of commissioners in this study has an overall average value of 0.3828 or 38.28%. The rationalization reflected in the bonus mechanism in this study has an overall average value of 1.0698 indicating that the sample company has awarded the company to the board of directors or management of 1.06% of its net sales.

This study has passed the classic assumption test, namely the test for normality, multicollinearity, autocorrelation, and heteroscedasticity. Furthermore, the results of the determination coefficient test show that the adjusted R2 value is 0.532, which means that 53.2% fraudulent financial statements are influenced by independent pressure (financial stability, external pressure, financial target), opportunity variables (nature of industry, effective monitoring) and rationalization variables. Based on the ANOVA test or F test, it shows an F value of 13,319 with a significance of 0,000. Significantly smaller significance values than 0.05 indicate that the regression model can be used to detect the Fraudulent Financial Statement or can say all the independent variables jointly influence the dependent variable.

Table 3. Hypothesis Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	T Count	Sig. T
	B	Std. Error	Beta		
(Constant)	-0.816	0.184			
SATA	0.166	0.072	0.215	2.313	0.024
DER	-0.014	0.051	-0.036	-0.282	0.779
ROA	0.003	0.008	0.047	0.379	0.706
RECEIVABLE	-3.910	0.896	-0.414	-4.364	0.000
IND	0.772	0.346	0.198	2.230	0.030
ITRENDLB	0.343	0.079	0.433	4.337	0.000

Financial Stability is able to detect Fraudulent Financial Statements

The first hypothesis of financial stability is proxies by total asset turnover calculated by sales / total assets (SATA) can detect financial statement fraud accepted, because hypothesis test result concludes that asset rotation can detect financial statement fraud at issuer into LQ-45 index. This result is seen because the sig value.

Equal to (0.024) < (0.05). This result is in line with research conducted by Zainudin and Hashim (2016) which states that asset turnover can detect financial statement fraud. Financial stability and / or profitability threatened by uncertain economic circumstances encourage management to commit fraud. In general, large working capital has an affordable price, so financial auditors should pay attention to significant improvements occurring from one period to another as it may be a sign of income-related fraud (Mantone, 2013). Low profits can put pressure on management to overstate revenue or reduce expenses. Companies that have profitability issues have a more significant error in their financial statements than other companies (Kreutzfeldt and Wallace, 1986). More than half of fraud cases are reported by exaggerating earnings by recording incomes or fictitious (Spathis, 2002). Supported by global economic conditions during an unstable period of observation, resulting in sales in the sample companies decreased significantly while management was required to continue to generate optimum profitability into the pressure for the management to conduct fraudulent financial statements.

External Pressure do not detect Fraudulent Financial Statements

The second hypothesis of external pressure proxies by the ability of the company to return the loan with its own capital assurance (DER) can detect the financial statement fraud is rejected, because the hypothesis test results conclude that DER cannot detect financial statement fraud on the issuer entered into LQ-45 index. This result is seen because the sig value. (0.779)> (0.05). These results are in line with research conducted by Rachmawati and Marsono (2014), Martantya and Daljono (2013), Owens-Jackson *et al.* (2009) and Spathis (2002) stating that external pressure has no effect on fraud on the financial statements. The reasons for this finding do not support the hypothesis because external pressure is not a strong factor for a person to commit fraudulent financial reporting. Not entirely the management experienced external pressure when fulfilling its obligations. They have an obligation to fulfill their debt, but profit manipulation is not the only way to fulfill that obligation. They are more striving to improve their performance in order to generate good profits to meet its obligations. In addition, Rachmawati and Marsono (2014) revealed that the tendency of companies to engage in fraud with low leverage characteristics is more likely due to the current creditors do not consider the amount of leverage generated, but there are other considerations such as the level of trust or good relationships between companies with creditors.

Financial Target do not detect Fraudulent Financial Statements

The third hypothesis that ROA can detect financial statement fraud is rejected, because result of hypothesis test conclude that ROA cannot detect financial statement fraud at issuer entered into LQ-45 index. This result is seen because the sig value. (0.706)> (0.05). These results are in line with research conducted by Sihombing and Rahardjo (2014), Ratmono, Diany, Purwanto (2014), Rachmawati and Marsono (2014), and Skousen and Twedt (2009) stating that the financial targets projected by ROA cannot detect any financial statement fraud. The reasons for this finding do not support the hypothesis because managers do not consider that the company's ROA targets are still considered reasonable and achievable. Managers do not consider that the target ROA as a financial target that is difficult to achieve so that the target ROA does not trigger a fraudulent financial statements made by management. In addition the authors

assume that ROA for short-term goals, whereas managers must also think of long-term program in order to improve the overall profits of the company (Hutomo, 2012). Most of the short-term goals of this company are often less able to generate profits for the company as a whole, therefore the company should review whether the goals it makes can produce an overall profit or not useful for the sustainability of the company.

Nature of Industry is able to detect Fraudulent Financial Statements

The fifth hypothesis that RECEIVABLE can detect financial statement fraud is accepted, because the hypothesis test results conclude that RECEIVABLE can detect financial statement fraud on the issuer that entered into LQ-45 index. This result is seen because the sig value. (0.000) <(0.05). This result is in line with research conducted by Sihombing and Rahardjo (2014) which states that the nature of industry proxies by changes in accounts receivable to sales can detect financial statement fraud. This is because an increase in the number of accounts receivable from the previous year can be an indication that the company's cash turnover is not good. The number of accounts receivable owned by the company will certainly reduce the amount of cash that can be a boost for management to manipulate the financial statements. Significant increase in accounts receivable can be a serious indication of financial stability within a company. If the company wants to attract investors, then one of the efforts in achieving that goal is to manipulate the amount of receivables that long collection time (Subramanyam and Wild, 2008).

Ineffective Monitoring is able to detect Fraudulent Financial Statements

The sixth hypothesis that IND can detect financial statement fraud receives, because result of hypothesis test concludes that IND can detect financial statement fraud at issuer that enters into LQ-45 index. This result is seen because the sig value. (0.030) < (0.05). These results are in line with research conducted by Kusumawardhani (2013) and Owens-Jackson et al. (2009) stating that independent commissioners are able to detect any financial statement fraud. This is because the higher the effectiveness of the company's captors will decrease the management's potential for fraudulent financial statements. Fraud can be minimized one of them with good supervision mechanism. Independent commissioners are believed to increase the effectiveness of corporate oversight. So that the greater independent commissioner's proportion, then the process of capturing will be more effective so that it will reduce the potential for management to make financial reporting abundance. But the results of this study indicate the opposite direction that the greater proportion of independent commissioners will increase the financial statement fraud. The seemingly relevant explanation is due to the function of independent commissioners as a function of control over management actions that are not yet optimal. This condition is also confirmed by the results of the Asian Development Bank (2005) that strong control of the company's founders and majority ownership make the board of commissioners not independent and the oversight function that should be the responsibility becomes ineffective. There is the possibility of bridging or addition of board members from outside the company just to meet formal requirements, while majority shareholders (controllers / founders) still play an important role so that the performance of the board does not increase even can decrease (Rachmawati & Marsono, 2014). In addition, independent commissioners consider their interests and needs. Compared with commissioners from within the company, independent commissioners may represent the interests of better shareholders (Fama

and Jensen, 1983). Thus, a close relationship between the board of commissioners and managers will significantly reduce the effect of supervision (Lynall, Golden & Hillman, 2003).

Rationalization is able to detect Fraudulent Financial Statements

The sixth hypothesis that ITRENDLB can detect financial statement fraud is accepted, because the hypothesis test results conclude that ITRENDLB can detect financial statement fraud on issuers that enter into LQ-45 index. This result is seen because the sig value. (0.000) < (0.05). The parties involved in fraudulent financial statements are usually capable of rationalizing fraudulent acts as being consistent with their personal code of ethics. Most cases of financial report fraud occur because the failure of managers to function in a morally and ethically responsible manner so that the characteristics and ethics of managers are a major determinant to attitude or rationalization. Some other studies have shown that a bonus mechanism can actually lead to a decrease in moral behavior because bonus mechanism can increase self-interested behaviors in some people and thus encourage unethical and fraud practices. The bonus mechanism associated with net income will encourage managers to increase the current bonus value by reporting high profits, one of which is by accrual basis policy that increase profits. As Healy (1985) found evidence that corporate managers with a net profit-based bonus scheme adopted an accrual policy to maximize their bonus expectations.

CONCLUSION AND SUGGESTION

Based on the data processed, the analysis and the results of the discussion conducted in this study about the ability in terms of detecting a financial statement fraud which is measured by using fraud score model and has six independent variables on the issuer that entered into LQ-45 index year 2014-2016, hence can be concluded that: (1)Financial Stability, financial stability proxies by SATA is able to detect financial statement fraud. The condition of financial stability / profitability which is influenced by economic factors encourages fraud. Low profits may cause pressure on management to overstate revenue or reduce expenses. Companies with profitability problems allow more significant errors in their financial statements than firms with no profitability issues. (2)External Pressure, external pressure proxies by DER cannot detect financial statement fraud. External pressure was not a strong factor enough for a person to commit fraudulent financial reporting. They have an obligation to fulfill their debt, but profit manipulation is not the only way to fulfill the obligation. (3)Financial Target, financial targets proxies by ROA cannot detect financial statement fraud. This is because managers do not consider that the target ROA as a financial target that is difficult to achieve so that the amount of ROA does not trigger a fraudulent financial statements. In addition, ROAs are short-term targets where managers must also think about long-term programs in order to increase overall corporate profits. (4)Nature of Industry, nature of industry proxies by RECEIVABLE is able to detect financial statement fraud. An increase of receivable accounts from the previous year indicate that the company's cash is not good. The number of accounts receivable showed in financial statement certainly indicate the lack of cash amount for its operational activities. This liquidity problem can be a boost for management to manipulate financial statements. (5)Ineffective Monitoring, ineffective monitoring proxies by IND is able to detect

financial statement fraud. The number of independent board of commissioners in a company reflected how good the supervision of the company's operations is. However, the increasing number of independent commissioners has caused a lack of focus on a function, resulting in control over management measures not optimal. (6)Rationalization, rationalization proxies by ITRENDLB is able to detect financial statement fraud. The bonus mechanisms associated with net income motivate managers to increase their bonus value by way of reporting high profits wherever possible. This can be justified by the manager's actions because the opportunistic manager tries to maximize the bonuses he receives.

Research Limitations

This research has been endeavored and implemented in accordance with scientific procedures, but still have limitations. Risk factors for fraud that occur due to pressure according to SAS No. 99 have four categories, while personal financial need is not included in this study. Futhermore, an opportunity according to SAS No. 99 have three categories, whereas organizational structure is not included in this study.

Recommendations

Based on the results of research that has been concluded, there are some things that must be taken into account for investors and for the management company. For the next researcher is expected to increase the research sample for more accurate test result and representativeness. It is also expected that the next researcher uses a combination of primary data types so that it can add more proof of perspective and is also expected for subsequent researchers to use all for fraud triangle, which in this study does not include personal financial needs elements and organizational structure. Other variables such as: more representative primary data source, current assets / total assets, inventory / total assets, working capital / total assets, total accrual / total assets, related-party transactions and so on may be use to have wider perspectives

REFERENCES

American Institute of Certified Public Accountant (AICPA). (2002). *Consideration of fraud in a financial statement audit.* Statement on Auditing Standar No.99. New York: AICPA.

Andayani, T.D. (2010). *Pengaruh karakteristik dewan komisaris independen terhadap manajemen laba (studi pada perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia)* (Master's Thesis). Fakultas Ekonomi Universitas Diponegoro.

Apostolou, B.A, Hassell. J.M., Webber, S.A., & Sumners, G. E. (2001). The relative importance of management fraud risk factors. *Behavioral Research in Accounting, 13*(1), 1-24.

Arens, A.A & Loebbecke, J. (2013). *Auditing: An integrated approach.* United Stated: Englewood Cliff.

Asian Development Bank. (2005). Improving the investment climate in Indonesia. *ADB Publication*.

Association of Certified Fraud Examiner (ACFE). (2016). *Report to the nations on occupational fraud and abuse global for study.* USA.

Bell, T. B., Szykowny, S., & Willingham, J.J., (1991). Assessing the likelihood of fraudulent reporting: A cascaded logic approach. *Journal of Accounting and Economics, 26*(4), 475-500.

Beneish, M. D. (1997). Detecting GAAP violation implications for assessing earnings management among firms with external financial performance. *Journal of Accounting and Public Policy, 16*(3), 271-309.

Beneish, M.D. (1999). The detection of earnings manipulation. *Financial Analyst Journal, 55*(5), 24-36.

Bologna, G. J., & Lindquist, R. J. (1987). *Fraud auditing and forensic accounting.* Canada: John Wiley & Sons, Inc.

Collins, D., Maydew, E. & Weiss, I. (1997). Changes in the value-relevance of earnings and book values over the past forty years. *Journal of accounting and economics 24*(1), 39-67.

Cressey, D.R. (1953). *Other people's money; a study of the social psychology of embezzlement*. Free Press. Retrieved from https://psycnet.apa.org/record/1954-06293-000.

Dechow, P. M., GE, W., Larson, C. R. & Sloan, R. G. (2011). Predicting Material Accounting Misstatements. *Contemporary Accounting Research, 28*(1), 17–82.

Dendawijaya, L. (2005). *Manajemen Perbankan*. Ghalia Indonesia: Bogor.

Elliot, R.K., & Willingham, J.J. (1980). *Management Fraud-Detection and Deterrence*. Princeton: Petrocelli Book Inc.

Fama, E. & Jensen, M. (1983). Separation of ownership and control. *Journal of Law and Control, 26*(2), 301-325.

Forum for Corporate Governance in Indonesia. (2013). Indonesia Company Law. http://fcgi.org.id

Francis, J. & Schipper, K. (1999). Have financial statement lost their relevance?. *Journal of Accounting Research, 37*(2), 319-352.

Ghozali, I. (2013). *Aplikasi Analisis Multivariat dengan Program IBM SPSS 21*. Semarang: Penerbit Universitas Diponegoro.

Healy, P.M. (1985). The effect of bonus scheme on accounting decisions. *Journal of Accounting and Economics, 7*(1-3), 85-107. https://doi.org/10.1016/0165-4101(85)90029-1.

Hutomo, O. S. (2012). *Cara mendeteksi fraudulent financial reporting dengan menggunakan rasio-rasio finansial (Studi kasus perusahaan yang terdaftar di annual report Bapepam)* (Master's thesis). Program Pascasarjana, Universitas Diponegoro.

Kreutzfeldt, R., & Wallace. W. (1986). Error characteristics in audit populations: Their profile and relationship to environment factors. *Auditing: A Journal Of Practice & Theory*, (Fall), 20-43.

Kusumawardhani. (2013). Deteksi financial statement fraud dengan analisis fraud triangle pada perusahaan perbankan yang terdaftar di BEI. *Jurnal Akuntansi AKUNESA, 1*(3), 1-20.

Loebbecke, J. K., Eining, M.M, & Willingham, J.J. (1989). Auditors experience with material irregularities: Frequency, nature, and detectability. *Auditing: A Journal of Practice & Theory, 9*(1), 1-28.

Lou, I. Y. & Wang, M. L. (2009). Fraud Risk Factor of The Fraud Triangle Assessing The Likelihood of Fraudulent Financial Reporting. *Journal of Business &*

Economic Research. Taiwan: Nan Hua Univeristy and National Cheng Kung University.

Lynall, M.D., Golden, B.R. & Hillman, A. (2003). Board Composition from adolescence to maturity: A multi theoretic view. *Academy of Management Review, 28*(3), 416-431.

Mantone, P.S. (2013). *Using analytics to detect possible fraud: tools and techniques*. Wiley, Wiley Corporate F&A.

Martantya, M.R & Daljono. (2013). Pendeteksian kecurangan laporan keuangan melalui faktor risiko tekanan dan peluang. *Diponegoro Journal of Accounting, 2*(2), 1-12.

Nguyen, Khanh. 2008. *Financial statement fraud: Motives, methodes, cases and detection*. Publisher: Dissertation .com.

Norbarani, L. (2012). *Pendeteksian kecurangan laporan keuangan dengan analisis fraud triangle yang diadopsi dalam SAS No. 99.* (Undergraduate Thesis). Universitas Diponegoro: Semarang.

Persons, O. (1995). Using financial statement data to identify factors associated with fraudulent financial reporting. *Journal of Applied Business Research, 11*(3), 153-163.

Rahman, A. F. & Oktaviana, U. K. (2010). Masalah keagenan aliran kas bebas, manajemen laba dan relevansi nilai informasi akuntansi. Prosiding *Simposium Nasional Akuntansi 13*, Purwokerto

Rachmawati, K. K. & Marsono. (2014). Pengaruh faktor-faktor dalam perspektif fraud triangle terhadap fraudulent financial reporting (Studi kasus pada perusahaan berdasarkan sanksi dari Bapepam periode 2008-2012). *Diponegoro Journal of Accounting, 3*(2), 1-14.

Ratmono, D, Diany, Y. A., & Purwanto, A. (2014). Dapatkah Teori Fraud Triangle Menjelaskan Kecurangan dalam Laporan Keuangan? *Proceedings of Symposium Nasional Akuntansi 17*, Universitas Mataram: Lombok. https://drive.google.com/file/d/1AHh6k5YcKQDD8qeY3icSnpoCXTQU4xar/view.

Sihombing, K. S. & Rahardjo, S.N. (2014). Analisis fraud diamond dalam mendeteksi financial statement fraud: Studi empiris pada perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia (BEI) Tahun 2010-2012. *Diponegoro Journal of Accounting, 3*(2), 1-12.

Skousen, C.J., & Twedt, B. J. (2009). Fraud score analysis in emerging market. *Cross Culture Management an International Journal, 16*(3), 301-316.

Spathis, C.T. (2002). Detecting false financial statement using published data: Some evidence from Greece. *Managerial Auditing Journal, 17*(4), 179-191.

Subramanyam, K. R. & Wild, J.J. (2008). *Financial Statement Analysis 10th edition.* McGrawHill.

Summers, S.L & Sweeney, J.T. (1998). Fraudulently misstated financial statement and insider trading: an empirical analysis. *The Accounting Review, 73*(1), 131-146.

Utomo, S. (2011). Skema bonus dewan direksi dan aktivitas manajemen laba: Penelitian pada perusahaan manufaktur di BEI. *Jurnal Dinamika Ekonomi & Bisnis, 8*(1), 93-104.

Widiyastuti, M. & Pamuji, S. (2009). Pengaruh kompetensi, independensi, dan profesionalisme terhadap kemampuan auditor dalam mendeteksi kecurangan (FRAUD). *VALUE ADDED, 5*(2), 52-73.

Zainudin, E. F., & Hashim, H. A. (2016). Detecting fraudulent financial reporting using financial ratio. *Journal of Financial Reporting and Accounting*, *14*(2), 266–278. https://doi.org/10.1108/JFRA-05-2015-0053.

Zandstra, G. (2002). Enron, board governance and moral failings. *Corporate Governance International Journal of Business in Society*, *2*(2), 16-19.