

DETECTING THE LIKELIHOOD OF FRAUDULENT FINANCIAL REPORTING: AN ANALYSIS OF FRAUD DIAMOND

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ABSTRACT

This paper aims to analyze the likelihood of fraudulent financial reporting using the fraud diamond analysis. Fraud diamond is a concept explaining factors that cause someone to commit fraud, namely pressure, opportunity, rationalization, and capability. In this research, pressure factor was proxied by using financial stability, external pressure, and financial target. Opportunity factor was proxied by using the nature of industry and effectiveness of monitoring. Rationalization factor was proxied by rationalization and capability was proxied by capability. This research made use of earnings management to discover the likelihood of financial statement frauds. Earnings management was measured by using F-score indicator. The population in this research were manufacturing companies listed on the Indonesian Stock Exchange (IDX) from the year 2014 – 2016. From the population, 31 companies were selected as the research samples by using the purposive sampling method. This quantitative method-using research was analyzed using multiple regression analysis and T-tests for hypotheses testing. The research findings reveal that only the opportunity variable proxied by industrial nature is proven to have an influence in detecting the likelihood of fraudulent financial reporting. In the meantime, other variables have no influence in detecting the likelihood of fraudulent financial reporting.

Keywords: fraud diamond, likelihood of fraudulent financial reporting, f-score

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INTRODUCTION

Financial statements serve as a means of communicating corporate financial information that will be used by users, both internal and external parties as a consideration in decision making during a certain period. Therefore, the information contained in financial statements should reflect the whole accounting process in a company and fulfill the information criteria. According to Romney and Steinbart (2012), in their book entitled 'Accounting Information Systems', the criteria of useful information are relevant, reliable, complete, punctual, understandable, verifiable, and accessible. If all information has met these criteria, users of financial statements can use the financial information maximally.

Nevertheless, as a matter of fact, there are still companies that do not present their financial statements in accordance with the criteria. One of the alleged causes is the fraud committed by management for either group or personal gain. According to the Association of Certified Fraud Examiners or ACFE (2018), there are three schemes of fraud committed by management and employees in a company - corruption, asset misappropriation, and financial statement fraud. In a publication entitled 'Report to the Nations on Occupational Fraud and Abuse', ACFE (2018) investigated 2,690 fraud cases throughout the world since January 2016 to October 2017. The study showed that the percentage of financial statement fraud during the period was 10% of the total fraud percentage. Despite of the fact, this kind of fraud has caused huge financial loss.

There are a few theories that explain the analysis method used to detect the likelihood of fraudulent financial reporting, one of which is the fraud triangle introduced by Cressey in 1953. According to Cressey (1953), there are three factors that cause someone to commit fraud, namely pressure, opportunity, and rationalization. These factors were based on Cressey's interview with fraud perpetrators. Furthermore, Wolfe and Hermanson (2004) added one more factor, that is capability. These four factors are then known as the fraud diamond.

In prior studies, a majority of researchers proxied the dependent variable (the likelihood of fraudulent financial reporting) with earnings management measured by discretionary accruals. They measured earnings

management by using the fraud score model introduced by Dechow et al. (2009). The measurement which is widely known as F-Score is considered to be effective and it is recommended as a first-pass screening by accountants in detecting material misstatement in financial statements (Sukrisnadi, 2010). Meanwhile, the independent variables used in this present study are the variables considered to be feasible to re-examine its effects on financial statement fraud, namely, the variable of pressure proxied by financial stability, external pressure, financial target; *the* variable of opportunity proxied by the nature of the industry, effective monitoring; *the* variable of rationalization; and variable of capability. The purpose of this study was to investigate the influence of financial stability, external pressure, financial target, nature of industry, effective monitoring, rationalization and capability on the likelihood of financial statement reporting.

THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

Agency Theory

Agency relationship arises when a person or more principals have a contract to hire and delegate their decision making authority to others called an agent (Jensen & Meckling, 1976). In a corporation, shareholders act as principals, while managers act as agents. Shareholders have personal interest to improve their welfare by investing their money and expect high returns on the investments. Based on the agreed contract, managers have a responsibility for protecting and managing shareholders' interests, while shareholders have a responsibility for appreciating the managers' performance.

In spite of the agreement, managers also have a personal interest to improve their welfare. To achieve this interest, managers will conduct a number of ways to boost a company's financial performance for gaining more appreciation from shareholders. This is what tends to lead a manager to commit fraud. One of the frauds often committed is information manipulation presented in financial statements that is the information held by the manager will be different from that of shareholders and it is called asymmetric information (Jensen & Meckling, 1976).

Fraud

Albrecht et al. (2012) in their book entitled 'Fraud Examination' stated that fraud is a common term and it encompasses a number of ways committed by human intelligence, through an individual to gain benefits from others by a material misstatement in a financial statement. Thus, there are no definite and uniform rules to be used as a basis for defining fraud since it includes surprises, tricks, cunning, and other ways by which people are cheated.

The Association of Certified Fraud Examiners or ACFE (2018) has made a fraud scheme in the working world which is called a fraud tree. In the scheme, the ACFE classifies fraud into three - corruption, asset misappropriation, financial statement fraud.

Fraud Triangle Theory

Cressey (1953) introduced the fraud triangle used for detecting the likelihood of fraud. There are three causes that lead to fraud, namely pressure, opportunity and rationalization. Pressure may be both financial and non-financial. The financial pressure may be due to excessive life style, while the non-financial pressure may be due to shareholders' demand for better performance of the managers. Meanwhile, opportunity takes place because one's position or occupation may lead to infringements without having to bear the consequences. Lastly, rationalization that is an attitude that allows others to commit fraud and perceive it as a reasonable thing.

The Fraud Diamond Theory

Wolfe and Hermanson (2004) added the capability factor to complete Cressey's theory (1953). Thus, there are four factors that influence someone to commit fraud - pressure, opportunity, rationalization and capability. These four factors are known as the fraud diamond.

Wolfe and Hermanson (2004) contended that fraud would not occur if people with the capability to commit fraud were not found. Fraud occurs

starting from pressure, which in turn leads the perpetrator to escape the pressure by seeking opportunities. Furthermore, the thing that limits someone to commit fraudulent acts is rationalization. When the fraudulent acts have been rationalized, the perpetrator should assess whether he/she is able to commit the fraud. This capability is not only in terms of his/her expertise in committing fraud, but also in terms of his/her position in a company.

Earnings Management

Hamza and Lakhali (2010) explained that earnings management is an intervention act toward process of financial reporting conducted by the management for gaining personal benefits. In the perspective of the agency theory, fraudulent financial reporting through scheme of earnings management occurs when there is a conflict of interest between management as the agent and shareholders as the principal. The conflict of interest may lead to differences in financial information held by the management and the shareholders. When supervision from shareholders through the board of commissioners is weak, the differences in the financial information will be likely to increase and a higher agency cost is needed.

Earnings management is driven by desires of the management to gain good assessment from shareholders. The shareholders will be likely to believe in the management's performance, as their interest has been fulfilled – gaining high returns on their investment. Likewise, the management's interest is also fulfilled by obtaining appreciation from shareholders in form of incentive over their performance. Nevertheless, the performance tends to be manipulated.

The Influence of Financial Stability on the Likelihood of Fraudulent Financial Reporting

Financial stability is an overview or measure of the condition of company stability viewed from a financial perspective. Therefore, investors, creditors, or the public will have more preference for corporations with a good financial standing. It is demanded that corporations have good financial stability. One of the ways to figure out the level of financial stability of a company is by examining the value of its asset growth. Loebbecke, Eining, and Willingham (1989) stated that when the value of asset growth of a

company is under the industry average, it would spur the management to manipulate the asset value, which in turn boosts the company's prospects in the eyes of the public.

A study conducted by Iqbal and Murtanto (2016), Annisya, Lindrianasari, and Asmarani (2016), and Pras Maulida (2016) made use of the total assets turnover ratio as a measure of financial stability. The result was that financial stability has a significant and positive influence on the likelihood of fraudulent financial reporting. This research finding supports a research by Skousen et al. (2008). Thus, it can be concluded that the higher the ratio of the total assets turnover, the higher the asset growth of a company, which means the higher the likelihood of financial reporting. Based on the explanation, a hypothesis is proposed as follows:

H1: *Financial stability has a positive influence on the likelihood of fraudulent financial reporting.*

The Influence of External Pressure on the Likelihood of Fraudulent Financial Reporting

External pressure is the pressure faced by a management because of a range of expectations and requirements from third parties (Iqbal and Murtanto, 2016). One of the external pressure sources is when a company intends to boost its funding source for improving its performance, but at the same time, it has difficulty meeting the credit requirement and is afraid of its inability to pay its debts on the due date (Skousen et al., 2008).

A study conducted by Indarto and Ghazali (2016) and Zaki (2017) measured external pressure by means of leverage ratio, that is the ratio of total debt divided by debt to assets ratio. The result revealed that external pressure has a significant and positive influence on the likelihood of fraudulent financial reporting. Thus, it can be concluded that the higher the value of leverage ratio, the higher the debt owed by the company, which means the higher the likelihood of fraudulent financial reporting committed by the management. Based on the review, a hypothesis is proposed as follows:

H2: *External pressure has a positive influence on the likelihood of fraudulent financial reporting.*

The Influence of Financial Target on the Likelihood of Fraudulent Financial Reporting

In carrying out managerial tasks, a manager is required to show his/her best performance in achieving planned targets. A measure of management's performance is effectiveness and efficiency to earn profits by utilizing the company's assets. Skousen et al. (2008) stated that return on total assets (ROA) is a measure employed to demonstrate management's performance in earning profits. Therefore, ROA is one of major indicators used by companies to determine allowances and bonuses for their employees.

A study by Indarto and Ghozali (2016) revealed that ROA has a positive significant influence on the likelihood of fraudulent financial reporting. The conclusion is the higher the ROA target of a company, the higher the likelihood of fraudulent financial reporting which is committed through earnings management. If the ROA target is high, the management will most likely reach the target. However, if the ROA of a company shows a lower value, it allows managers to manipulate the financial statement by increasing the profit. By the explanation, a hypothesis is proposed as follows:

H3: *Financial target has a positive influence on the likelihood of fraudulent financial reporting*

The Influence of Industry Nature on the Likelihood of Fraudulent Financial Reporting

The nature of industry is an ideal reflection of a company in an industry. The economic environment and industrial regulations in a region where a company operates, is one of the loopholes for the company to commit financial statement fraud. This vulnerability arises because the industry regulations require companies to have expertise in estimating over accounts the value of which is calculated based on subjective judgments. According to Summers and Sweeney (1998), the accounts which often become the targeted object of manipulation is uncollectible accounts and obsolete inventories.

Inventories are included in current assets that are susceptible to theft and misappropriation as they are easily converted to cash. Besides, a company

usually has a larger value of inventory, so the inventory account has a significant influence on either the balance sheet account or profit and loss statement (Ardiyani & Utaminingsih, 2015).

Summers and Sweeney (1998) measured the nature of the industry by means of an inventory turnover ratio and a receivables turnover ratio. It was found that both measuring instruments could prove that the nature of the industry has a significant positive influence on the likelihood of fraudulent financial reporting. The higher the total inventory turnover ratio of a company, the higher the likelihood of fraudulent financial reporting. This present study focuses more on the inventory, as the total inventory turnover ratio is used as the indicator of the nature of the industry. In addition, financial statements of manufacturing companies are used as its object of research, as one of the characteristics of the companies is possessing an inventory account. Based on the explanation, a hypothesis is proposed as follows:

H4: *The nature of the industry has a positive influence on the likelihood of fraudulent financial reporting.*

The Influence of Effective Monitoring on the Likelihood of Fraudulent Financial Reporting

A company that has a good monitoring system will impact to the reduced likelihood of earnings management practices by agents or management (Andayani, 2010). The board of commissioners (BoC) is subordinate to shareholders to oversee management directly in making business decisions, guaranteeing the implementation of the company's strategy, and ensuring accountability. There are two types of BoC. The first type is representative commissioners, that is the BoCs affiliated with shareholders or directors of the company. The second type is the independent BoC that is the BoC is appointed in General Meeting of Shareholders (GMS) independently and not affiliated with other BoCs, directors and shareholders. The purpose of the latter is to maintain neutrality of the BoC in supervising the performance of the management.

Dechow et al. (2009) conducted a research using the ratio of an independent BoC as the indicator of effective monitoring. Their findings proved that effective monitoring has a significant negative influence on the likelihood of fraudulent financial reporting. Thus, the higher the ratio of the

independent BoC in a company, the more effective the supervision in the company, which means, the lower the likelihood of fraudulent financial reporting. Based on this explanation, a hypothesis is proposed as follows:

H5: *Effective monitoring has a negative influence on the likelihood of fraudulent financial reporting.*

The Influence of Rationalization on the Likelihood of Fraudulent Financial Reporting

Suyanto (2009) stated that rationalization is the attitude that allows a person to commit fraudulent acts or consider the fraudulent acts reasonable. The perpetrators involved in financial statement fraud are likely to consistently rationalize the fraud by modifying rules/ethic code. Such an attitude will be increasingly harmful if an auditor fails to mitigate the financial statement fraud. Audit failure can be caused by a few factors, one of which is when auditor turnover occurs in a company (Skousen et al., 2008). This happens due to the external auditor's lack of knowledge on the company's condition as a whole. Fraudulent acts hence occur committed by the management and is undetected by the external auditor. In consequence, the management will keep committing financial statement fraud and consider it reasonable as long as the external auditor has not uncovered it.

A study conducted by Loebbecke, Eining, and Willingham (1989) showed that the risks of audit failure are higher in the initial years of the auditor tenure than the following years. So, it can be concluded that the more frequent a company conducts an external auditor turnover, the higher the likelihood of fraudulent financial reporting by the management. Thus, a hypothesis is proposed as follows:

H6: *Rationalization has a positive influence on the likelihood of fraudulent financial reporting.*

The Influence of Capability on the Likelihood of Fraudulent Financial Reporting

Wolfe and Hermanson (2004) contended that fraud would not occur if people with the capability to commit fraud were not found. Capability means

the abilities for the person to commit fraud for a particular purpose. Such abilities can be assessed through his/her skills in committing fraud and his/her position in a company. Therefore, the position of the CEO, directors, and other division heads is considered to be the most capable to prevent or vice versa, that is to utilize this ability to commit fraud. When a company conducts a director turnover – removing a director and appointing a new director to improve the performance of previous director, it shows that the performance of the previous director is poor and indicates alleged financial statement fraud. A director turnover is said to be successful if the new director is able to prevent and reduce financial statement fraud. On the contrary, if the new director is unable to do so, the director turnover is considered failed. Even worse, the new director will likely take advantage of his/her ability to commit fraudulent acts.

Manurung and Hardika (2015) employed director turnover as a measuring instrument for capability to examine the likelihood of fraudulent financial reporting. Their research proved that director turnover has a significant positive influence on the likelihood of fraudulent financial reporting. Thus, it can be concluded that the more frequent the occurrence of director turnover in a company, the higher the likelihood of fraudulent financial reporting. By the explanation, a hypothesis is proposed as follows:

H7: *Capability has a positive influence on the likelihood of fraudulent financial reporting*

RESEARCH METHOD

Population and Sample

The research population in this study was financial statements of manufacturing companies listed on the Indonesian Stock Exchange (IDX) in the year 2014-2016. The financial statements of manufacturing companies have been chosen as the research object since the business and accounting process on the companies runs longer than other kinds of companies, so that the likelihood of fraudulent acts tend to be greater. For example, the longer process starts from the purchase of raw materials, processing the raw materials or the so-called production process, until the goods reach consumers.

Furthermore, purposive sampling was used to select the samples. According to Widarjono (2015), purposive sampling is a sampling method by considering that the selected sample can represent the population under study, or to put it another way the sample is chosen based on the established criteria. The criteria used in this sampling were as follows:

- 1) Manufacturing companies listed on the Indonesian Stock Exchange (IDX) for the year 2014-2016.
- 2) The companies published their financial statements in their company websites or IDX website for the period 2014-2016.
- 3) Revealed the data related to the research variables and they are available on the publications of the from 2014-2016.
- 4) Not delisted from IDX during the period 2014-2016.
- 5) Not switch to other sectors during the observation period 2014-2016.

Data Collection Method

The data collection method in this study was the documentation method – a data collection method by taking notes and studying documents or archives relevant to the issues being investigated. The method was conducted by collecting the whole data of annual reports of manufacturing companies listed on the IDX for the year 2014-2016 taken from www.idx.co.id, company website, the Indonesian Capital Market Directory (ICMD), and other sources.

Definition of Operational and Measurement of Variable Data

This study analyzed eight (8) variables, consisting of one (1) dependent variable and seven (7) independent variables. The definition and operationalizing of each variable is explained below:

Dependent Variable

The dependent variable used this study is the likelihood of fraudulent financial reporting. This study attempted to detect the likelihood of fraudulent financial reporting using the fraud score model as determined by Dechow et

al. (2009). The F-Score model is the sum of two variables - accrual quality and financial performance (Skousen & Twedt, 2009), formulated by the following equation:

$$F - Scores = Accrual Quality + Financial Performances$$

The variable component on F-Score comprises of two things that can be seen in the financial statement - accrual quality and financial performance. Accrual quality is calculated by the RSST accrual. RSST itself stands for the names of the researchers who introduced this formula, that is Richardson, Sloan, Soliman, and Tuna (Richardson, et al, 2005). This formula defines all non-cash and non-equity changes in company's balance sheet as the accrual and distinguishes the reliability characteristics of working capital (WC), non-current operating (NCO), and financial accrual (FIN) as well as asset component and obligation in the form of accrual (Rini & Achmad, 2012). The form of the formula is as follows:

$$RSST\ accrual = \frac{(\Delta WC + \Delta NCO + \Delta FIN)}{Average\ Total\ Assets}$$

Explanation:

- **WC** = (Current Assets - Current Liability)
- **NCO** = (Total Assets - Current Assets - Investment and Advances) - (Total Liabilities - Current Liabilities - Long Term Debt)
- **FIN** = (Total Investment - Total Liabilities)
- **Average Total Assets** = (Beginning Total Assets + End Total Assets) / 2

Financial performance of a financial statement is perceived to be able to predict the likelihood of fraudulent financial reporting (Skousen & Twedt, 2009). Financial performance can be seen through changes in accounts receivable, changes in inventory accounts, changes in cash sales accounts, and changes in earnings before tax and interest which is formulated through the following equation:

$$Financial\ performance = change\ in\ receivables + change\ in\ inventories$$

+ *change in cash sales* +
change in earnings

Explanation:

$$\text{Change in receivables} = \frac{\Delta \text{Receivables}}{\text{Average Total Assets}}$$

$$\text{Change in inventories} = \frac{\Delta \text{Inventories}}{\text{Average Total Assets}}$$

$$\text{Change in cash sales} = \frac{\Delta \text{Sales}}{\text{Sales (t)}} - \frac{\Delta \text{Receivables}}{\text{Receivables (t)}}$$

$$\begin{aligned} \text{Change in earnings} &= \frac{\text{Earnings (t)}}{\text{Average Total Assets (t)}} \\ &- \frac{\text{Earnings (t-1)}}{\text{Average Total Assets (t-1)}} \end{aligned}$$

Independent Variables

Financial stability

The larger the asset turnover ratio of a company, the higher the likelihood of financial statement fraud. A study by Skousen, et al. (2008) used asset turnover ratio as the measuring instrument for financial stability. Asset turnover ratio (ACHANGE) can be calculated by the following formula:

$$\text{ACHANGE} = \frac{(\text{Total Assets (t)} - \text{Total Assets (t-1)})}{\text{Total Assets (t-1)}}$$

External pressure

External pressure is excessive pressure perceived by management to fulfil the requirement and expectation of third parties. One of the pressure sources is the company's ability to meet debt requirement and repay the debt (Skousen et al., 2008). The external pressure in this present study was

measured by leverage ratio (LEV). Leverage ratio is calculated by formula of debt to assets ratio, that is:

$$\text{Debt to Assets Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

Financial target

In carrying out managerial tasks, a manager is required to show his/her best performance in achieving planned targets. A measure of management's performance is effectiveness and efficiency to earn profits by utilizing the company's assets. Return on asset (ROA) is a profitability ratio used to measure a company's performance (Skousen, et al, 2008), and it can be calculated by the following formula:

$$\text{ROA} = \frac{\text{Earning After Interest and Tax}}{\text{Total Assets}}$$

Nature of industry

The nature of the industry is an ideal condition of a company in an industry. Inventory belongs to a liquid account that it is susceptible to misappropriation and fraud, as it is easily converted to cash. In addition, the inventory account can be used by management to manipulate financial statements, since it has a significant influence on the balance sheet and profit and loss statement (Ardiyani & Utaminingsih, 2015). Therefore, this study used the inventory turnover ratio as the indicator for the nature of the industry calculated by the following formula:

$$\text{Inventory} = \frac{\text{Inventory}(t)}{\text{Sales}(t)} - \frac{\text{Inventory}(t-1)}{\text{Sales}(t-1)}$$

Effective monitoring

When monitoring runs effectively, it will likely result in a reduced earnings management by agent/management in a company (Andayani, 2010). An independent BoC is needed to enhance the effectiveness of the company's governance practices. This study hence measured effective monitoring by the ratio of an independent BoC (BDOUT). (BDOUT) was calculated using the following formula:

$$BDOUT = \frac{\text{Total independent Boards}}{\text{Total Boards}}$$

Rationalization

Rationalization is justification for fraudulent acts being committed. When external auditor turnover occurs in a company, it will likely lead to audit failure. This happens due to the new external auditor's ignorance of the company's condition. Fraudulent acts hence occur committed by management and it is undetected by the external auditor. In consequence, the management will keep committing financial statement fraud and consider it reasonable as long as the external auditor has not uncovered it (Skousen et al., 2008). This study measured the proxy of rationalization by external auditor turnover (AUDCHANGE). This measurement made use of a dummy variable. If a turnover of public accountant firms was found during the period 2014-2016, code 1 was given. Otherwise, if a turnover of public accountant firms was not found during the period 2014-2016, code 0 was given.

Capability

Director turnover shows that old directors have poor performance in advancing the company. This is due to alleged financial statement fraud. In this case, the old director is unable to prevent fraud, instead he/she uses his/her capability to commit fraud (Wolfe & Hermanson, 2004). This present study measured the proxy of capability by director turnover (DCHANGE). This measurement made use of a dummy variable. If director turnover was performed during the period 2014-2016, code 1 was given. Otherwise, if director turnover was not performed during the period 2014-2016, code 0 was given.

Data Analysis Method

Hypotheses testing was conducted by using the multiple linear regression analysis. The regression equation used in this study is as follows:

$$F\text{-SCORE} = \beta_0 + \beta_1\text{ACHANGE} + \beta_2\text{LEV} + \beta_3\text{ROA} + \beta_4\text{INVENTORY} + \beta_5\text{BDOUT} + \beta_6\text{AUDCHANGE} + \beta_7\text{DCANGE} + e$$

Explanation:

- β_0 = constant regression coefficients
- $\beta_{1,2,3,4,5,6,7}$ = regression coefficients each proxy
- *F-SCORE* = the likelihood of fraudulent financial reporting
- *CHANGE* = total asset turnover ratio
- *LEV* = total liabilities ratio by total assets
- *ROA* = return on assets
- *INVENTORY* = total inventory turnover ratio
- *BDOUT* = independent commissioners ratio
- *AUDCHANGE* = external auditor turnover
- *DCHANGE* = director turnover
- *e* = error

There is a classical assumption that should be fulfilled before conducting hypothesis testing. Therefore, the test of classical assumption towards the regression model being used should be carried out – the normality, multicollinearity, autocorrelation, and heteroscedasticity tests. The next step was examining the accuracy of the regression model used in estimating the actual value that can be measured by observing the value of goodness of fit. Goodness of fit is measured by the F test, the determination test, and the T test.

RESEARCH FINDINGS AND DISCUSSION

The Overview of the Research Objects

Of the total population of financial statements of manufacturing companies listed on the IDX from 2014-2016, 144 companies were collected, and finally 31 companies were selected. Details of the determination of the sample used in this study is listed in Table 1. The data used was the data during three years, so that the total number of samples was 93 companies.

Table 1: The Criteria of Sampling

No.	Explanation	Year 2014-2016
1	Manufacturing companies listed on IDX during the period 2014-2016.	144
2	Annual reports on company website or IDX website during the period 2014–2016	(16)
3	The companies that uses currencies other than Rupiah.	(28)
4	The companies that suffered from losses, at least one year during the period 2014-2016.	(40)
5	The companies that were delisted from IDX during the period 2014-2016	(2)
6	The companies that switched to other sectors during the observation period 2014-2016	(1)
7	The companies that did not reveal the data related to research variables and they are complete available on the publications of during 2014-2016	(26)
	Total sample companies	31
Total research samples (31 companies x 3 years)		93

Descriptive Statistical Analysis, Test of Classical Assumption and Model Test

The results of descriptive statistical analysis are presented in Table 2. Tests of classical assumption were conducted in this study, the normality, multicollinearity, autocorrelation, and heteroscedasticity tests. The result of determination coefficient test showed that the value of adjusted R^2 is 0.359 or 35,9%. This means that the dependent variable – the likelihood of fraudulent financial reporting, can be explained by the independent variables in this study which amounts to 35.9%, and the rest, 64.1% is explained by other variables not being used in this study. The result of F test shows that the significance value is less than 0.05, that is 0.000 ($0.000 < 0.05$). Thus, it can be concluded that the regression model used in this research is a fit regression model.

Table 2: Results of Descriptive Statistical Analysis

Variable	n	Minimum	Maximum	Mean	Std. Deviation
F-SCORE	93	-0.637	1.411	0.11983	0.304071
ACHANGE	93	-0.142	0.803	0.11307	0.136083
LEV	93	0.111	0.864	0.37439	0.181988

ROA	93	0,001	0.359	0.09011	0.073289
INVENTORY	93	-1.854	1.867	-0.00233	0.277027
BDOUT	93	0.000	0.750	0.38497	0.097530

Variable Dummy	n	Frequency	
		0	1
AUDCHANGE	93	83	10
DCHANGE	93	45	48

Multiple Linear Regression Analysis

The regression equation is obtained as follows:

$$F\text{-SCORE} = -0.134 - 1.168 ACHANGE + 0.132 LEV + 0.471 ROA + 0.381 INVENTORY + 0.763 BDOUT + 0.021 AUDCHNGE - 0.002 DCHNGE + e$$

Results of multiple linear regression are presented in Table 3.

Table 3: Results of Multiple Linear Regression Analysis

Model	Unstandardized		Standardized	t	Sig.	
	Coefficients		Coefficients			
	B	Std. Error	Beta			
1	(Constant)	-0.134	0.112		-10.195	0.236
	ACHANGE	-1.168	0.191	-0.523	-60.113	0.000
	LEV	0.132	0.164	0.079	0.804	0.423
	ROA	0.471	0.394	0.114	1.196	0.235
	INVENTORY	0.381	0.095	0.347	4.023	0.000
	BDOUT	0.763	0.292	0.245	2.610	0.011
	AUDCHANGE	0.021	0.083	0.022	0.255	0.799
	DCHANGE	-0.002	0.053	-0.003	-0.032	0.974

Source: Data output SPSS

Hypothesis Testing

Hypothesis testing was done using the t test. This test aims to examine the influence of the independent variables (financial stability, external pressure, financial target, nature of industry, effective monitoring, rationalization, and capability) separately over the dependent variable (the likelihood of fraudulent financial reporting) (Ghozali, 2013).

The Influence of Financial Stability on the Likelihood of Fraudulent Financial Reporting

Results of hypothesis testing demonstrated that financial stability measured by ACHANGE had a coefficient amounting to -1.168 and a significance level of $0.000 < 0.05$. This value means that financial stability has a significant and negative influence on the likelihood of fraudulent financial reporting. The higher the asset turnover ratio of a company, the higher the value of asset growth of the company, which means the lower the likelihood of fraudulent financial reporting to occur. In conclusion, hypothesis 1 is rejected.

This research finding corresponds with findings of in prior studies by Yesiarani (2016) and Fuadin (2017). When it is demanded that a company has financial stability, the likelihood of financial fraud will get reduced. So, the financial condition of a company will more likely be stable, purely because of the performance of management, not because of fraud or manipulation by the management to gain more appreciation from users of financial statements.

The Influence of External Pressure on the Likelihood of Fraudulent Financial Reporting

The result of hypothesis testing showed that external pressure measured by LEV has a coefficient of 0.132 and a significance level of $0.423 > 0.05$. This value means that external pressure does not have an influence over the likelihood of fraudulent financial reporting. No matter how large the value of the total debt ratio to total assets of a company is, it does not have an

influence over the likelihood of fraudulent financial reporting. In conclusion, hypothesis 2 is rejected.

This research finding corroborates finding of previous studies by Manurung and Hardika (2015), Iqbal and Murtanto (2016), Zaki (2017), and Fuadin (2017), stating that management that perceives pressure caused by debt does not affect them to commit fraud, since the company has decided to issue shares to increase capital rather than make a debt agreement. So, the share issuance will reduce the pressure to repay the debt someday, and prevent the pressure leading to fraud. Nevertheless, there are also companies that tend to raise capital through debt. They tend to believe that if they obtain funds coming from debt, their business processes will get improved, they gain higher returns and are finally able to repay the debt, and besides that they will be avoided from the likelihood of financial statement fraud. The prevention of fraud may be due to creditors' tight supervision.

The Influence of Financial Target on the Likelihood of Fraudulent Financial Reporting

The results of hypothesis testing showed that financial target measured by ROA has a coefficient of 0.471 and a significance level of $0.235 > 0.05$. This value means that financial target does not have an influence on the likelihood of fraudulent financial reporting. No matter how large the value of the net income ratio to total assets of a company is, it does not have an influence on the likelihood of fraudulent financial reporting. Thus, hypothesis 3 is rejected.

This research finding is in agreement with findings of prior studies conducted by Sihombing and Rahardjo (2014), Iqbal and Murtanto (2016), Annisya, Lindrianasari, and Asmarani (2016), and Zaki (2017), that increased financial target of a company does not affect the management to commit financial statement fraud. This happens because the company intends to increase its profitability as well as improve its operational quality. The company will not hesitate to make investing decisions based on modernized information systems, efficiency of business processes, recruiting experts, and applying other policies to achieve the determined targets. By carrying out the improvement of operational quality, the management will not feel the pressure when profitability target gets increased.

The Influence of Nature of Industry on the Likelihood of Fraudulent Financial Reporting

The result of hypothesis testing demonstrated that the nature of industry measured by INVENTORY has a coefficient of 0.381 and a significance level of $0.000 < 0.05$. This means that the nature of the industry has a significant and positive influence on the likelihood of fraudulent financial reporting. The higher the value of the total inventory turnover ratio of a company, the higher the likelihood of fraudulent financial reporting to occur. Thus, hypothesis 4 is accepted.

When total inventory of a company is high, the management is likely to commit fraud. Inventory, which is a company's assets that can be easily converted to cash, is an opportunity for fraudsters. They use the inventory account as intermediaries for window dressing, as the account is the one whose value is significant in the balance sheet.

This finding is in line with the finding of Summers and Sweeney (1998), that to deal with inventory fraud, a company should improve the existing supervisory system. External auditors and BoCs should be able to prevent and detect any fraudulent financial reporting on the accounts that are susceptible to manipulation, one of which is inventory account, before the financial statements are audited and published.

The Influence of Effective Monitoring on the Likelihood of Fraudulent Financial Reporting

The result of hypothesis testing showed that effective monitoring measured by BDOOUT has a coefficient of 0.763 and a significance level of $0.011 < 0.05$. This value means that effective monitoring has a significant and positive influence on the likelihood of fraudulent financial reporting. The higher the value of the independent commissioners ratio of a company, the higher the likelihood of financial fraud. Thus, hypothesis 5 is rejected.

This research finding does not correspond to findings of prior studies by Manurung and Hardika (2015), Iqbal and Murtanto (2016), and Prasmaulida (2016), that the larger the number of independent commissioners in a company, the higher the likelihood of fraudulent financial reporting to occur. The higher likelihood of fraud is due to the independent commissioners' unprofessional attitude in carrying out their tasks. Ideally, the monitoring system of a company will be more effective, when the company has more independent BoCs. In fact, there is no positive contribution from the independent BoCs toward the effectiveness of company's monitoring. Instead, they took part in committing financial statement fraud with the management.

The Influence of Rationalization on the Likelihood of Fraudulent Financial Reporting

The result of hypothesis testing revealed that rationalization measured by AUDCHANGE has a coefficient of 0.021 and a significance level of $0.799 > 0.05$. This value means that rationalization does not have an influence on the likelihood of fraudulent financial reporting. No matter how frequent the external auditor turnover of a company is, it does not have an influence on the likelihood of fraudulent financial reporting. Thus, hypothesis 6 is rejected.

This research finding corroborates findings of previous studies by Manurung and Hardika (2015), Indarto and Ghozali (2016), that external auditor turnover of a company does not have an influence on the likelihood of fraudulent financial reporting. This occurs since the management has been accustomed to the external auditors with good performance. So, when auditor turnover occurs, they remain not to commit fraud as fraud rationalization is not their habit. Such a habit gradually will be more likely to become the company's culture.

The Influence of Capability on the Likelihood of Fraudulent Financial Reporting

The result of hypothesis testing showed that capability measured by DCHANGE has a coefficient of -0.002 and a significance level of $0.974 > 0.05$. This value means that capability does not have an influence on the likelihood of fraudulent financial reporting. No matter how frequent the

director turnover occurs in a company, it does not have an influence on the likelihood of fraudulent financial reporting. Thus, hypothesis 7 is rejected.

This research finding matches the findings of Annisya, Lindrianasari, and Asmarani (2016) and Zaki (2017), that director turnover does not influence the likelihood of fraudulent financial reporting. The absence of the fraud likelihood is because the director turnover is due to other things, not due to how the old director uses his/her capability to commit fraud. In addition, the director turnover is said to succeed because the new director can use his/her position to advance company performance and prevent fraud.

CONCLUSIONS AND SUGGESTIONS

Conclusions

Based on the investigation conducted on 31 manufacturing companies listed on the IDX from 2014-2016, it can be concluded that the nature of the industry has a positive influence on the likelihood of fraudulent financial reporting. In the meantime, financial stability, external pressure, financial target, effective monitoring, rationalization and capability do not have an influence on the likelihood of fraudulent financial reporting.

Suggestions

- 1) For further research
 - a) It is recommended that further research has a more extended research period, so that many more samples can be obtained, which in turn reflect the actual condition.
 - b) It is recommended that further research add more variables to detect financial statements, add more variables-explaining proxies, and make use of other new indicators which are feasible , for instance using the fraud pentagon analysis to detect financial statement fraud.
- 2) For companies

Companies should have an internal control system and a great organizational culture in order to prevent financial statement fraud.

3) For users of financial statements

Users can take advantage of the inventory turnover ratio to detect financial statement fraud, as this study has proven that the ratio can be used as a fraud detector.

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