Predicting Financial Statement Fraud with Fraud Diamond Model of Manufacturing Companies Listed in Indonesia

by Surenggono .

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Nanda Trio Santoso and Surenggono

Abstract Fraud in corporations is a topic that has received significant and growing attention, not to mention that it is considered as a loophole in the financial statement fraud. This study aims to obtain empirical evidence about the detection of the financial statement fraud proxied with earnings management through revenue discretionary model (Stubben in Acc Rev 85(2): 695–717, 2010) accordance with fraud diamond by Wolfe and Hermanson (CPA J, 1–5, 2004). The variables used were the factor of pressure proxied by financial stability, external pressure, personal financial need and financial targets, while the factor of opportunity was proxied by nature of the industry and ineffective monitoring, the factor of rationalization and the factor of capability. The samples used in this study were 86 manufacturing companies that were listed in Indonesia Stock Exchange in the period 2012–2014. Secondary data were used in the form of financial reports of companies. Hypothesis testing was conducted using logistic linear regression with EViews software. The results showed that the variables such as pressure, opportunity, rationalization and capability simultaneously determine the financial statement fraud. Based on the partial test (Wald test), variable external pressure, financial target and capability partially could be used to predict the financial statement fraud, while other variables could not.

Keywords Fraud triangle · Fraud diamond · Financial statement fraud Revenue discretionary model

Introduction

Rapid economic growth and competitive enterprises encourage companies to adapt and find out profitable business opportunities. Every company, for instance, needs investors to provide an additional fund for sustainability for a company's going concern.

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In that situation, the company is mandatory to perform a good performance and fit by giving correct information related to company's financial statement. Fulfilling expectation and hopes of stakeholder does not mean there will be no fraud in the financial report. These can influence property in reporting financial statement and become not representative. It is proved by many scandals which revealed in reporting financial statement, such as big manipulation case of Xerox Corporation about 6 M USD (Sari and Ahmar 2014), Enron Corp's case and Century Bank in Indonesia. Therefore, the implication of undetected financial statement fraud will become a big scandal that may inflict all stakeholders (Skousen et al. 2009).

This research aimed to investigate detecting financial statement fraud (look at the previous research) (Skousen et al. 2009; Sihombing 2014; Nugraha and Henny 2015; Rezaee 2002), based on the fraud diamond as analysis approach towards the financial statement of manufacturing companies listed in Indonesia Stock Exchange in the period 2012–2014. Because the variables of fraud diamond cannot be researched simply, it needs a variable proxy in order to measure the financial statement fraud with earnings management. This is in line with opinion of Rezaee (2002) that financial statement fraud is related to profit manipulation which is done by management. In this research, revenue discretionary model approach of Stubben (2010) was used to measure profit management in detecting financial statement fraud. This model approach uses income and account receivable as primary components to predict profit management; based on his research, it is proved that revenue model is usually less, more specific, stronger than the accrual model (Jones mode) (Sari and Ahmar 2014).

Theoretical Framework and Hypothesis Development

ISA 240.11 (2009) defines fraud as "an intentional act by one or more individuals among management, those charged with governance, employees, or third parties, involving the use of deception to obtain an unjust or illegal advantage". Financial statement fraud is defined by AICPA (2002) as deliberate misstatements or omissions of amounts or disclosures of financial statements to deceive financial statement users, particularly investors and creditors. This fraud can be financial or non-financial including actions taken by an officer or executive of a company to cover financial conditions that actually conduct financial engineering in the disclosure of its financial statements. The motive of conducting financial engineering is to gain or perhaps analogous to the term window dressing (Nugraha and Henny 2015).

Many things made management took fraud. One of them was a conflict of interest that occurs between managements as an agent with the principal investor which often benefits for one party resulting in financial statement fraud (agency theory). Cressey (1953) as cited in Skousen et al. (2009) categorized conditions in fraudulent financial activities into pressure, opportunity and rationalization which is also known as the "fraud triangle". Concerning with the widespread phenomena in forensic accounting, Wolfe and Hermanson (2004) suggested a new phenomenon of

fraud known as "diamond fraud" (Gbegi and Adebisi 2013). Fraud diamond was the refinement of the theory of fraud triangle by Cressey 1953 (Skousen et al. 2009). Fraud diamond adds a qualitative element that is believed to have significant influence on the capability fraud. Capability means the power and capacity of a person who is doing fraud in the corporate environment.

Each occurrence of financial statement fraud perpetrators is confronted by various pressures perceived as a financial loss, failure to meet earnings expectation and the ability to compete with similar industries. Perpetrators of fraud saw an opportunity to commit or conceal fraud due to the amount of pressure that is felt. Lack of attendance by members of the board of directors and weak internal audit leads to opportunities for fraud perpetrators to rationalize fraud. Fraud eventually happens or not depends on the capability of the perpetrator of the fraud. Then, the hypothesis for this research is:

H1: Factor of pressure, opportunity, rationalization and capability can be used to detect financial statement fraud.

Financial Stability

Financial stability is a statement that describes a company's financial condition. When the financial stability of the company is in a state that is threatened, then the management will do everything possible so the financial stability of the company looks good. The form of manipulation in the financial statements performed by management relates to the growth of corporate assets (Skousen et al. 2009). Therefore, the ratio of total assets is used as a proxy for changes in the variables of financial stability. Then, the hypothesis for this research is:

H2: Financial stability can be used to detect the financial statement fraud.

External Pressure

External pressure was excessive pressure for management to meet the requirements or expectations of the third parties. External pressure was proxied by using the leverage ratio (total debt to total assets). If a company has a high leverage, meaning the company has a large debt and high credit risk. Because it has a high credit risk, then it is worried that the company will not be able to repay the provided loan capital. Therefore, the company must save themselves from this condition; it is considered being able to repay the loan (Nugraha and Henny 2015). Then, the hypothesis for this research is:

H3: External pressure can be used to detect financial statement fraud.

Personal Financial Need

Skousen et al. 2009 argue that when the executive has a significant role in the financial strength of a company. Their personal financial needs will be threatened by the company's financial performance (Skousen et al. 2009). Therefore, the personal financial variables need proxy by the ratio of share ownership by insiders. The shares owned by managers, directors or commissioners of the company will automatically affect the company's financial condition. Ownership of some shares

by insiders can be used as controls in financial reporting (Skousen et al. 2009). Companies with the composition of shareholders partly from the insider are less likely to commit fraud. Then, the hypothesis for this research is:

H4: Personal financial need can be used to detect financial statement fraud.

Financial Targets

Return on assets (ROA) is a proxy for variable financial targets. Asset utilization efficiency is expressed by the ratio of the size to revenue from total asset or asset return as an overall performance measure (Skousen et al. 2009). If the ROA showed negative results, it can be interpreted that the company's profit is also in the negative condition, which means the ability of the overall capital invested assets has not been able to generate profits. Summers and Sweeney (1998) as cited by Skousen et al. (2009) investigated that the ROA between fraud firm and non-firm fraud was significantly different. Therefore, we can conclude that the lower the ROA the more the company will be prone to commit fraud financial statements. Then, the hypothesis for this research is:

H5: Financial targets can be used to detect the financial statement fraud.

Nature of Industry

In the financial statements, the accounts of a certain amount of balance are determined by the company based on estimations such as accounts for doubtful accounts and obsolete inventory account. Opportunities result from circumstances that provide chances to commit fraud. Summers and Sweeney in Skousen et al. (2009) state that managers will focus on both accounts if it intends to manipulate the financial statements. Based on the research conducted by Sihombing (2014), the nature of industry has a positive effect on fraudulent financial statements. Referring to the previous researchers, a proxy for changes in the ratio of inventories to sales for two years (INVENTORY) will be able to detect fraud in the financial statements. Based on the findings of several types of research, the hypothesis for this research is:

H6: Nature of industry can be used to detect the financial statement fraud.

Ineffective Monitoring

The occurrence of fraud is because of the weak supervision or monitoring so it gives an opportunity to the agent or manager to perform inappropriate behaviour such as earnings management. Fraud can be minimized with a good oversight mechanism. Independent boards are believed to raise the effectiveness of company's monitoring, especially in minimizing the earnings management, which is one form of financial statement fraud committed by management. Results of the research of Skousen et al. (2009) proved that fraud was more common in companies which have smaller external board members. Based on the findings of several previous types of researches, hypothesis in this research is:

H7: Ineffective monitoring can be used to detect financial statement fraud.

Rationalization

Rationalization is the third leg of the fraud triangle and is very difficult to measure. Extant research indicates that the incidence of audit failures and litigation increases immediately after a change in auditor (Skousen et al. 2009). Loebbecke (1989) as

cited Lou and Wang (2009) proffered that 36% of their sample was alleged in the initial two years of an auditor's tenure. Lou and Wang (2009) indicated that a client could change auditors to minimise a possibility of detection of a financial statement fraud. The change of independent auditor becomes a proxy of rationalization, Lou and Wang (2009); Skousen et al. (2009) predict that (ΔCPA) is positively correlated to the likelihood of fraud. Then, the hypothesis for this research is:

H8: Rationalization can be used to detect financial statement fraud.

Capability

The capability is a qualitative factor according to Wolfe and Hermanson (2004), which is one of the complements of the fraud triangle models by Cressey 1953 (Skousen et al. 2009). Capability means the power and capacity of a person who commits fraud in the corporate environment. There are many components of capability, namely position/functions, brain, confidence/ego, coercion skills, effective lying and immunity to stress. The capability factor will be proxied with the change of the board of directors. Wolfe and Hermanson (2004) studied the capability as one of the factors behind the fraud risk of fraud directors and concluded that a change might indicate fraud. Change in directors can be a company's efforts to improve the performance of directors or the recruitment of new directors are considered more competent than the previous directors. On the other hand, the change in directors could be the company's efforts to get rid of directors who are deemed to know of fraud by the company and the change in directors that are considered would require adaptation time so the initial performance is not optimal. Therefore, the proposed hypothesis is:

H9: Capability can be used to detect financial statement fraud.

Research Methodology

A. *Population and Sample*

The population in this research was all of the manufacturing companies listed in the Indonesia Stock Exchange in the period 2012–2014. Manufacturing companies were used as the population because they have similar characteristics in terms of implementation of accrual basis. In addition, the manufacturing company's financial statement data are more reliable in the presentation of the accounts of the financial statements, such as assets, cash flow, sales and others.

The sampling technique has taken by purposive sampling to obtain a representative sample in accordance with the following criteria:

1. Manufacturing companies that listed on the Indonesia Stock Exchange (BEI) in the period 2012–2014;

2. Publishing the annual report in the company's Website or the Indonesia Stock Exchange Website with the currency used in rupiah (IDR);
3. The companies taken as sample have completed the financial reports which contain all the variables required in this particular research model;
4. The companies that did not delisted from the Indonesia Stock Exchange during the period of observation (2012–2014).

B. *Dependent Variable*

The dependent variable in this research was the financial statement fraud proxied with the earnings management. To measure and calculate accrued earnings management, we use the approach of discretionary revenue model of Stubben (2010) who discovered the residual value of trade receivables changed from the results of the sum of the change in income in the first third quarter and changes in revenues in the fourth quarter. Residual values were then classified with restrictions (-0.075) up to 0.075 that were otherwise not indicated in financial statement fraud. The formula of discretionary revenue model is given as follows (Stubben 2010):

$$\Delta AR\,it = \alpha + \beta 1 + \beta 2\,\Delta R1\_3it\,\Delta R4it + e \tag{1}$$

C. *Independent Variables*

Independent variables used in this research are as follows: financial stability was proxied by the ratio of the change in total assets (ACHANGE), external pressure was proxied by the ratio of leverage (LEV), personal financial need was proxied by percentage of share ownership management (OSHIP), and financial targets is proxied by ROA. While the nature of the industry was proxied by the ratio of inventories to sales (INV), ineffective monitoring was proxied by the ratio of independent directors (BDOUT), rationalization was proxied by changing public accounting firm (ΔCPA), and capability was proxied by changing the composition board of director (DCHANGE). The operational definition of variable is given in Table 1.

D. *Data Analysis Technique*

Data analysis method used in this research was a logistic regression model (LRM). The LRM was considered as the most appropriate technique to analyse the data in this research, because the dependent variable was dichotomous or multinomial, i.e. more than one attribute. Logistic regression with two choices is often called the binary logistic regression (BLR). Logit model uses a principle CDF (cumulative distribution function). CDF is a model that represents the response of the dependent variable through qualitative measurement with a value between 0 and 1. Logit model uses logistic probability function approach in performing an estimation process. If in the logit model has heteroscedasticity problem, it can be removed with WLS approach. The analysis model with maximum likelihood (MLE) used in this research:

Table 1 Independent variable

Variable	Operational definition
Pressure factor	
Financial stability (ACHANGE)	Ratio of total assets changes in the year t to the year $t-1$ to total assets in the year $t-1$
External pressure (LEV)	Ratio of total liabilities to total assets
Personal financial need (OSHIP)	Ratio of total shares owned by insiders of the total common shares outstanding
Financial targets (ROA)	Ratio of income before taxes in the year $t-1$ to total assets in the year $t-1$
Opportunity factor	
Nature of industry (INVT)	Ratio of inventory in the year t to sales in the year t minus inventory in the year $t-1$ to sales in the year $t-1$
Ineffective monitoring (BDOUT)	Ratio number of independent commissioner to the total board of commissioner
Rationalization factor (ΔCPA)	Dummy variable for the change in auditor, if point 1 = there is a change in auditor and point 0 = there is no change in auditor
Capability factor (DCHANGE)	Dummy variable for the change in directors, if point 1 = there is a change in directors and point 0 = there is no change in directors

Source Various studies

$$\mathrm{Li} = \ln\left(\frac{P_i}{1-P_i}\right) = \beta_0 + \beta_1\mathrm{ACHANGE}_i + \beta_2\mathrm{LEV}_i + \beta_3\mathrm{OSHIP}_i + \beta_4\mathrm{ROA}_i$$
$$+ \beta_5\mathrm{INVT}_i + \beta_6\mathrm{BDOUT}_i + \beta_7\Delta\mathrm{CPA} + \beta_7\mathrm{DCHANGE}_i + \varepsilon_i$$

Description:

β_0	Coefficient of regression constants
$\beta_{1,2,3,4,5,6,7,8}$	Regression coefficient of each proxy
FRAUD	Financial Statement Fraud
ACHANGE	Ratio of total assets in 2012–2014
LEV	Ratio total liabilities of total assets
OSHIP	Portion of share ownership management
ROA	Return on assets
INVT	Ratio of inventories to sales in 2012–2014
BDOUT	Ratio number of independent commissioner
(ΔCPA)	Change in independent auditor
DCHANGE	Change in board directors
ε	Error standard

Therefore, that equation was estimated by BLR. On the model of the BLR, the dependent variable financial statement fraud (Y) was classified into two categories: 1 = if the company's financial statement was detected financial statement fraud, and 0 = if the company's financial statement was not detected financial statement fraud.

Result and Discussion

A. *Result*

Based on sampling process, 86 companies were found that met the sample requirement. By combining data research in three years in one analysis, then the number of observations conducted in this research was 258 times. Logit model analysis tools or BLR with EViews version 6.0 was used to examine previously formulated hypothesis by examining best-fit model first. Selecting the model was examined by Hosmer and Lemeshow's goodness-of-fit test in which the result shows chi-square value of 11.0661 with significant value more than 0.05 (0.1980). Therefore, the model can predict observation value or acceptable and appropriate to be used in this observation. Multicollinearity was known by the coefficient of correlation, the value resulted from correlation matrix on EViews program. If the value of correlation coefficient between each independent variable is more than 0.8, it will be multicollinearity. Based on the estimation output of binary logistic, matrix correlation shows no significant multicollinearity between independent variables, which is shown from correlation value between independent variables under 0.8.

B. *Discussion*

Based on the result of EViews 6.0, the coefficient value of McFadden R^2 (R^2 Test) was 0.058320, meaning that the total of variable fraud variation was explained by all independent variables about 5.83%. Meanwhile, 94.17% was explained by other variables out of the model.

Based on estimation results *log-likelihood ratio test* (LR), LR statistic value was 19.46177, upper than LR value table which was 16.9190 or LR probability 0.012576 or lower than $\alpha = 5\%$ then rejected Ho1 and accepted Ha1. It means that all independent variable explains dependent variable significantly. This result has proved the theory of Carsey (1953), where three elements result from fraud, namely opportunity factor, rationalization factor and pressure factor and proved the theory of Wolf and Hermanson (2004); namely, it is needed to add capability factor because it can decide whether fraud happens or not. This research is in line with Sihombing (2014) research.

The results of the processing data between dependent and independent variables with logit model are explained in Table 2.

The result of hypothesis testing shows the value of Z of 0.217611 with significance of 0.8277, it can be concluded that the financial stability factor in proxy by ACHANGE can not detect fraudulent financial statements partially. Then, Ha2 was rejected and Ho2 was accepted. Based on the result, the change in total asset percentage has undergone an increase or decrease which is unclear, meaning that the total number of company assets cannot explain the financial stability of the company. In other words, every company which has decreased exchange of asset does not mean that it does financial statement fraud but it might be any difference in

Table 2 Research output of data with logit method

Variable	Coefficient	Std. error	Z statistic	Prob.
ACHANGE	0.147442	0.677549	0.217611	0.8277
LEV	**1.329189**	0.653080	2.035261	***0.0418**
OSHIP	0.614550	1.949864	0.315176	0.7526
ROA	**−2.542046**	1.176154	−2.161320	***0.0307**
INVT	−0.316538	0.503738	−0.628378	0.5298
BDOUT	0.362900	0.768225	0.472388	0.6366
ΔCPA	−0.057321	0.437224	−0.131101	0.8957
DCHANGE	**0.572433**	0.280808	2.038520	***0.0415**
C	−0.170464	0.509227	−0.334750	0.7378
McFadden R-squared	**0.058320**			
Log-likelihood	−157.1239			
Restr. log-likelihood	−166.8548			
Avg. log-likelihood	−0.609007			
Hannan–Quinn criter.	1.337619			
LR statistic	**19.46177**			
Prob (LR statistic)	**0.012576**			

Resource: Result output of EViews 6.0
Description: *Significant value 5%

measuring company asset as the implementation of fair value principle. This research is in line with the research of Nugraha and Henny (2015), but it negates with the research of Skousen et al. (2009).

The result of Z test of external pressure variables shows that Z calculation is 2.035362, and Z calculation probability is 0.01418; therefore, Ho3 is rejected and Ha3 is accepted. It means that external pressure proxied by LEV can be used to detect financial statement fraud. This occurrence is caused by the company that has higher leverage ratio, meaning that the company has higher debt proportion compared with asset proportion. Then, this phenomenon has a possibility for a company to manipulate earnings by adjusting profit by either increasing or decreasing profit of future period to recent period. This result is in line with the research of Skousen et al. (2009), Sihombing (2014), Nugraha and Henny (2015), and Lou and Wang (2009). The result of Z test for personal financial was 0.315176, and Z probability was 0.7526, i.e. more than (0.05); therefore, it rejected Ha4 and accepted Ho4. It is concluded that personal financial need factor which was proxied by OSHIP could not detect financial statement fraud. It occurs because the percentage of manager who owned stock was smaller compared to all stock that owned by general investors. Agustia (2013) stated that potency of conflict in agency was possible when company management owned less than 100% of common stock and then the possibility might happen. Conflict due to the agent's willingness to earn more salary or certain facilities the same as the principal for personal welfare. This research is in

line with Nugraha and Henny (2015), where personal financial need was not able to detect financial statement fraud and was against the result of Skousen et al. (2009).

The result of Z test shows that financial target is −2.161320, and the probability of Z is 0.0307 or less than α (0.05), thus rejecting Ho5 and receiving Ha5. This means that financial factor as proxied by the ROA targets can partially be used to detect the occurrence of financial statement fraud. This study proves that companies having a low operational performance or having a low ROA tend to perform financial statement fraud as a result of non-fulfilment of financial targets or the pressure exerted by the company to the management than the companies that have a high ROA. This research is in line with research conducted by Skousen et al. (2009), Nugraha and Henny (2015), Lou and Wang (2009), but this result is contrary to the research of Sihombing (2014), where the financial targets are measured by ROA which had no effect on financial statement fraud.

The Z test results for the nature of the industry indicate that Z calculation is −0.628378, and the Z probability is 0.5298 or more than α (0.05), thus rejecting Ha6 and receiving Ho6. This is intended as an industrial nature factor proxied by INVT partially unusable for some financial fraud. The result of this study can be interpreted that the ratio of inventories to sales was higher following the pattern that has been fit properly, where the decreasing inventories led to increased sales and are inversely proportional to the increase in the value of accounts receivable and cash. Therefore, it can be explained that the company did not perform in manipulating an account of inventory as well as in estimating the inventory balance, showing that the inventory account is a form of cheating that is very difficult to hide without being noticed by others. This research is in line with the research of Skousen et al. (2009), but this result is opposite to the research of Sihombing (2014), stating that the variable nature of the industry has a significant effect on financial statement fraud.

The Z test result for ineffective monitoring shows that the Z statistic value is 0.472388, and the Z probability is 0.6366 or more than α (0.05), thus rejecting Ha7 and accepting Ho7. It means that the monitoring ineffective factor proxied by BDOUT is partially incapable of detecting the occurrence of financial statement fraud. This can be explained that the size of the board of directors is not a key determinant of the effectiveness of supervision of the management company. Yet, the effectiveness of control mechanisms depending on the values, norms and beliefs is accepted within an organization as well as the role of the commissioners in controlling activities (monitoring) on the management (Agustia 2013). In addition, there are considerable obstacles that hinder the performance of independent directors who still have the lack of competence and integrity. This occurs because the appointment of commissioners is based on the respect, family relationships or other close relationships. Hence, independent board at the company still cannot work effectively in improving the operational oversight of the company, proves to have no effect and cannot minimize the practice of financial statement fraud

(Agustia 2013). The results support the research of Nugraha and Henny (2015), but it is contrary to the study of Skousen et al. (2009) and Sihombing (2014).

The result of Z test shows that Z count is −0.131101, and the Z probability is 0.8957 which is higher than α (0.05), thus rejecting Ha8 and accepting Ho8. This means that the rationalization factor proxied by ΔCPA is partially incapable of detecting the occurrence of financial statement fraud. In this study, it can be interpreted that the auditors are not able to find a gap in the company identified as committing statement financial fraud. The existence of regulations is one of the potential outcomes of the standards-based rule; that is, if the client can find a loophole in the regulations and record the transaction in a way that is not specifically prohibited by the accounting standards in force, it will be difficult for the auditor to ban the client to use the accounting method. Moreover, in some cases, Zimbelman et al. (2014) suggested that many auditors instead help to find loopholes or give permission to the client to record the transaction in a manner that is contrary to the principle of a method of accounting, but it still within the corridor rule. The result is a special rule (or the absence of specific rules) used for financial arrangements that are new and more complex as justification for accounting practices to decide what is acceptable and what is not. The result of this study supports the research of Nugraha and Henny (2015) which indicates that the change in auditor does not affect the financial statement fraud, and is contrary to the research of Skousen et al. (2009), Sihombing (2014), Lou and Wang (2009).

The result of Z test is 2.038520 and the probability of Z arithmetic is 0.0415 less than α (0,05), thus reject Ha9 and accept Ha9. This means that the capability factors proxied by DCHANGE could be partially used to detect the occurrence of financial statement fraud. In this study, this finding means that the directors' changing is a signal that there is an inability of a director as an agent regarding doing their duties. Then, turning the board is one of the ways to improve the previous performance. On the other hand, the company with the same composition of the board of directors in a long time is likely to remain to indicate that the agent's ability to manage the business better and should be maintained. Then, changing the board is one of the ways to improve the previous performance. On the other hand, the company with the same composition of the board of directors in a long time is likely to remain to indicate that the agent's ability to manage the company better and should be maintained. This study shows that the financial statement fraud in 2012–2014 is carried out by more than 60% agents who did not change the composition. In addition, it is proved that a successful fraud requires a consistent and effective action in order to avoid detection. Nevertheless, the results of the previous calculations are the possibility of fraud in the financial statement that the directors who have a poor ability are still possible with a probability level of 45.75%. This study supports the research of Wolfe and Hermanson (2004), stating that fraud is committed by someone who has the ability or capability in looking at opportunities to act fraud. So, this study indicates that capability factor proxied as the turn of the directors can be used to detect the occurrence of financial statement fraud, but it is contrary to the study of Sihombing (2014) which stated that the capability did not significantly influence the financial statement fraud.

Conclusion

A. Conclusion

Based on the analysis of financial statement fraud measured using earnings management approach model of Stubben (2010), it shows that more than 60% of manufacturing companies listed in Indonesia Stock Exchange in the period 2012–2014 are identified as committing financial statement fraud. These results indicate that fraud in Indonesia would still be founded and would continue to evolve to adjust the existing conditions.

Overall, the results show that all independent variables could explain the prediction of the occurrence of financial statement fraud in companies listed in the Stock Exchange in the period 2012–2014.

Based on the partial test (Wald test), external variable pressure, financial targets and partial capability could be used to detect the occurrence of financial statement fraud, while the stability of financial variables, the personal financial need, the ineffective monitoring, the nature of industry and the rationalization are partially incapable predicting the occurrence of financial statement fraud in companies listed on the Stock Exchange in the period 2012–2014.

B. Limitation and Recommendation

Some limitations and recommendations for future studies might use other forms of measurements of revenue discretionary models for financial statement fraud. It is considered to provide alternatives and comparisons to improve the quality of subsequent studies; in addition, other variables are more representatives describing a condition, which are similar to the conditions in Indonesia regarding not all variables that exist in the previous studies and have the same characteristic equation. Finally, it considers the latest indicators of fraud, namely the motive of fraud, which is always changing and always varied.

References

Agustia, D. (2013). Pengaruh faktor good corporate governance, free cash flow, dan leverage terhadap manajemen laba. *Jurnal Akuntansi dan Keuangan, 15*(1), 27–42.

AICPA, SAS No. 99. (2002). *Consideration of fraud in a financial statement audit.* New York: AICPA.

Cressey, D. (1953). *The internal auditor as fraud buster. Managerial Auditing Journal.* MCB University Press.

Gbegi, D. O., & Adebisi, J. F. (2013). The new fraud diamond model—how can it help forensic accountants in fraud investigation in Nigeria? *Europan Journal of Accounting Auditing Fiancé Research, 1.1*(4), 129–138.

International Accounting Standard Board. (2009). *International standard on auditing 240: The auditor's responsibilities relating to fraud in an audit of financial statements. Handbook.*

Lou, Y. I., & Wang, M. L. (2009). Fraud risk factor of the fraud triangle assessing the likelihood of fraudulent financial reporting. *Journal of Business and Economic Research, 7*(2), 62–66.

Nugraha, N. D. A., & Henny, D. (2015). Pendeteksian laporan keuangan melalui faktor risiko, tekanan dan peluang (berdasarkan press release OJK 2008–2012). *E-Journal Akuntansi Trisakti, 2*(1), 29–48.

Rezaee, Z. (2002). *Financial statement fraud: Prevention and detection*. New York: John Wiley & Sons Inc.

Sari, N. H., & Ahmar, N. (2014). Revenue discretionary model pengukuran manajemen laba: berdasarkan sektor industri manufaktur di Bursa Efek Indonesia. *Jurnal Akuntansi dan Keuangan, 16*(1), 43–51.

Sihombing, K. S. (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, 03*(02), 1–12.

Skousen, C. J., Smith, K. R., & Wright, C. J. (2009). Detecting and predicting financial stability: The effectiveness of the fraud triangle and SAS No. 99. *Journal of Accounting and Auditing, SSRN (Social Science Research Network), 13*, 53–81.

Stubben, S. R. (2010). Discretionary revenues as a measure of earnings management. *The Accounting Review, 85*(2), 695–717.

Wolfe, D. T., & Hermanson, D. R. (2004). The fraud diamond: Considering the four elements of fraud. *The CPA Journal*, 74(12), 38–42.

Zimbelman, M. F., Albrecht, C. C., Albrecht, W. S., & Albrecht, C. O. (2014). *Akuntansi Forensik* (4th ed.). Jakarta: Salemba Empat.

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