

Effect of Financial Liquidity, Audit Rotation and Audit Tenure on Financial Statement Fraud



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Abstract: Cases of financial statement fraud today are increasingly prevalent. Cases of this type of fraud result in material losses that are not insignificant. Many investors and creditors as well as the general public are victims of this type of fraud. Not only in European and US countries, in Indonesia there are also many cases of fraudulent financial statements. Financial statement fraud can occur due to many things. This study aims to analyze the effect of financial liquidity, audit rotation and audit tenure on financial statement fraud. Population determined is a manufacturing company with a food and beverage subsector listed on the Indonesia Stock Exchange period 2013-2018. The sample selection is done by purposive sampling technique, the sample results that meet the criteria are 78 samples. The research method used is multiple linear methods, where the results of the research partially show that the liquidity financial variable does not significantly affect fraudulent financial statements, variable audit rotations significantly influence fraudulent financial statements, and variable audit tenure does not significantly influence financial statement fraud.

Keywords : About four key words or phrases in alphabetical order, separated by commas.

I. INTRODUCTION

In order to be able to keep up with global developments so rapidly; in every global development, it will certainly have positive and negative impacts. Viewed from a positive aspect, namely, the existence of economic growth in Indonesia which was stated by Indonesian Centre of Statistics showed that the growth of 5.17 percent was the highest since 2014. In 2014 the economic growth was recorded at 5.01 percent, 2015 at 4.88 percent, 2016 at 5.03 percent, and 2017 at 5.07 percent, and 2018 at 5.08 percent [1].

Although a lot of positive element, but in terms of negative global development also does not deny the existence of elements whose are not responsible in developing ideas for

temporary benefits and the interests of certain parties. In other words the actions they take can be called acts of fraud or fraud. Fraud is a common language that almost all people understand the meaning; that if there is fraud, there must be an act that is not good or against the rules. If we examine the previous fraud or fraud, it has been stated that one of the negative causes of global development is fraud. Examples of cases that are still being discussed up to now are the Enron, WorldCom, and Xerox scandals [2], which are large companies that commit fraud in financial statements. And the case that we can see also in our country, PT. KAI in 2005 and the Century Bank case in 2015, as well as the recent SNP Finance case and cases in other companies [3].

Every action must have a cause, many people who commit acts of fraud or fraud. According to [4], there are 3 forms of fraud in a condition called the fraud triangle. First there is a motive or pressure (incentive / pressure), secondly there is an opportunity (opportunity), and thirdly there is a rationalization / attitude (rationalization / attitude) or the tendency of actors to justify their actions. Someone or a group of people will commit fraud if within themselves there is pressure or encouragement that can arise from a variety of situations, for example urgent financial needs, pressure from other parties such as pressure from superiors to commit fraud, dissatisfaction with workplace organizations, greediness (greedy) and others. The motive then causes a person or group of people to look for opportunities to commit fraud and the opportunity becomes open if the internal control in the organization is weak.

Therefore, to overcome fraud from the fraud triangle, a service called an audit was formed where two audit services were provided, namely internal audit and external audit. Public accountant or external audit functioned as a third party that connects the management of the company with external parties of interest, to provide confidence that the financial statements presented by management can be trusted as a basis for making decisions. Internal auditors have the task of providing confirmation that controls within the company have been carried out well and making recommendations if the controls are not good.

According to [5] other studies prove that financial statement fraud has a serious and most adverse financial impact compared to other frauds. From a non-financial perspective, financial statement fraud is one type of fraud with substantial negative impacts, such as loss of investor confidence, damage to reputation, potential fines to the occurrence of criminal acts. Cases of fraud like this can cause loss of trust in financial markets, financial information and also the accounting profession throughout the world.

Revised Manuscript Received on October 30, 2019.

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II. THEORETICAL FRAMEWORK AND HYPOTHESIS

A. Signaling Theory

Signal theory was first put forward by [6] in his work entitled "The Market for Lemons" in 1970 which was later refined by Michael Spence entitled "Job Market Signaling" in 1973. According to Spencer (1973) argues that the signaling cost in question is to bring up a signal, both money time and energy. In companies, signal theory also becomes relevant; given the financial report information contained in financial statements can send good signals or bad signals to the market.

It was also stated by [7] that signaling theory is one of the pillar theories for understanding financial management, which in general signals can be interpreted as a signal taken by the company to investors. Signals can take the form of various forms, namely those that can be directly observed as well as those that need to be examined deeper to be able to find out. The signal delivered can be in the form of positive and negative signals.

Seeing this, managers in companies tend to try to reduce the information asymmetry that can cause the sending of bad signals to the market. This signal theory has to do with financial statement fraud. As stated earlier, the manager will give a signal to the market about the growth of the company. This of course makes the manager will always give a good signal to increase market confidence. So that if there are problems in the financial statements, the manager will cover up the error so that it still looks good in the eyes of the market and the signal delivered to the market is also a good signal [8].

B. Financial Statement Fraud

Understanding of fraud or fraud has been widely expressed by experts one of them by [4] taken from the Accounting Dictionary defines fraud as an act of fraud committed to enrich oneself by depriving others of their rights. Therefore it was conveyed by [9] that the main factor (high risk factor) of fraud is a human being with various reasons from within himself for committing an act that is not good. Many things happen where a person attaches importance to the interests of individuals or groups to gain benefits by violating the rules, standards, procedures, and applicable laws that reflect the loss of ethics in doing business.

Fraudulent financial statements (fraudulent statements) are forms of misstatement or deletion of amounts or incorrect disclosures made intentionally to deceive users. Fraud on financial statements is divided into two things, namely: Asset / revenue overstatements, presenting assets or income higher than it really is. Then, expense / liability understatements, presents assets or income lower than they really are [10].

C. Financial Liquidity

It was discussed earlier that liquidity ratios are ratios that illustrate a company's ability to meet its short-term obligations that are due soon. Companies with lower liquidity conditions can motivate management to commit financial reporting fraud. This is in accordance with the pressure conditions in the triangle fraud theory, where managers will act to do various ways when the company is not in good condition so as to show shareholders that the company's condition is healthy and successful, then managers will commit fraud in financial reporting [11] based on the theory,

research conducted by [12] states that the level of company liquidity has no significant effect on financial statement fraud. When a research proxy is conducted on the cash ratio and quick ratio only cash ratio can prove that liquidity can affect the detection of financial statements, it cannot be justified if using a quick ratio proxy. The statement was also justified by [13]. But it is different from [14] which states that the level of liquidity affects the fraud on the financial statements. Therefore, the author wants to re-examine the effect of liquidity on fraud on the financial statements with the current ratio proxy. So that the hypothesis can be summarized as follows:

H1: Liquidity has a positive effect on preventing financial statement fraud.

D. Audit Rotation

Auditor switching will affect the level of desire of the perpetrators to commit fraud in the financial statements. Based on this research has been conducted by [15] that Change of Auditors (CPA) has a positive effect on financial statement fraud. The study supports previous research conducted by [16]. Based on that, the writer wants to re-do research to prove that the effect of audit rotation on the prevention of financial statement fraud with a focus on a manufacturing company with a food and beverage sub-sector. So the hypotheses that can be formed are:

H2: Audit rotation has a positive effect on preventing financial statement fraud.

E. Audit Tenure

Effect of audit tenure on the prevention of financial statement fraud Audit tenure can influence fraud on financial statements when viewed from the period of engagement between the auditor and the auditee. Therefore, Regulation of the Minister of Finance of the Republic of Indonesia No. 17 / PMK.01 / 2008 issues requirements regarding Public Accountant Services article 3 paragraph 1, with audit services provided by the Public Accounting Firm for a maximum of six consecutive years, whereas for permanent partners a maximum of three years consecutive. This is also stated from the theory conveyed by [17] that a long audit tenure can be considered an auditor as income, but a long tenure can also cause an emotional relationship between client and auditor so that it can reduce auditor independence which can affect audit quality. The company is now starting a dilemma with the provisions of the government regarding the length of the tenure or tenure, the company is a dilemma to make a decision whether to change the auditor or want to build and maintain relationships. Then a study was conducted by [18] which states that audit tenure has a significant effect on the application of audit procedures to detect fraud risk in financial statements. The longer the tenure audit period (maximum in accordance with the auditor's rotation limit) will increase the application of audit procedures to detect the risk of fraud in the audit of financial statements. Based on the research conducted by [19], it attracted the attention of the writer to re-do the research on the effect of audit tenure on the prevention of financial statement fraud by focusing on manufacturing companies with sub-sectors food and Drink. So the hypotheses that can be formed are:

H3: Audit tenure has a positive effect on preventing financial statement fraud.

III. RESEARCH METHODOLOGY

The type of data that the authors set is documentation, which is collecting, recording and reviewing secondary data sourced from annual financial reports (Annual Report) on manufacturing companies that have been listed on the Indonesia Stock Exchange in 2013-2018. The author determines data collection is done using secondary data where data can be obtained by downloading through the official website of the Indonesia Stock Exchange, the official website idnfinancials.com, the official website of Morningstar.com, and the company's official website.

A. Determination of Sample Amount

In research sampling, researchers determined to use a non-probability sampling technique where in the non-probability sampling technique according to [20] is a sampling that does not provide equal opportunity / opportunity for each element or member of the population to be selected as a sample. The writer chose the manufacturing industry sector in the consumption sector with the food and beverage sub-sector because it has the most number of listing companies compared to other industries, and other reasons the writer chose the manufacturing company because the manufacturing company has a diverse level of financial risk so that it attracts the attention of the writer to see the effect of fraud on the financial statements.

B. Sample Collection Method

The author uses the purposive sampling method in the process of collecting samples where purposive sampling has a limited understanding of certain types of people who can provide the desired information, either because they are the only ones who have it or according to some criteria set by the researchers [21]. Based on the above understanding, the authors set the following criteria:

1. The company includes companies listed on the Indonesia Stock Exchange (IDX) during the study period.
2. Financial report data is available complete in a row from 2013-2018. The author determines the most recent data that is six years earlier that was published by the Indonesia Stock Exchange.
3. The selected company is a manufacturing sector manufacturing company with the food and beverage sub-sector.

C. Data Analysis Approach

The method that the authors determined to conduct this research uses descriptive statistical analysis methods and multiple linear statistical tests:

1. Descriptive statistical methods

Descriptive statistical methods according to [20] is used to analyze data using how to describe or describe the data that has been collected as existing data, without intending to make conclusions that apply to the public or generalizations. Analysis of data in descriptive statistics consists of presenting data through tables, graphs, pie charts, pictograms, calculating the mean, calculating the spread of data through calculating the maximum, minimum and

standard deviations.

2. Multiple Linear Analyses

According to [22] simple linear regression model is a probabilistic model that states the linear relationship between two variables where one variable is considered to affect the other variable. Variables that influence are called independent variables and variables that are affected are called dependent variables. The author conducted research using more than one independent variable, namely three variables, the authors establish multiple linear analysis as a method of data analysis in this study. According to [22] states that Multiple Linear Regression exists to cover the weaknesses of Simple Linear Regression when there are more than one Independent variable (x) and one Dependent variable (y).

D. Operation of Dependent Variables

The author sets the fraud on the financial statements to be the dependent variable because in this case the financial statement fraud occurs because there is the effect of the independent variable. In this study the authors used the Beneish M-score calculation. According to [23], Beneish M-score was developed in 1999 by Messod D. Beneish, Ph.D professor of accounting at Kelley business school at Indiana University. The Beneish M-Score consists of eight indices that record financial statement anomalies that can result from income manipulation or other types of fraudulent activity. The eight indications for calculating the Beneish M-Score are:

1. DSRI *Sales in Receivable Index*
2. GMI *Gross Margin Index*
3. AQI *Asset Quality Index*
4. SGI *Sales Growth Index*
5. DEPI *Depreciation Index*
6. SGAI *Sales General and Administrative*
7. LVGI *Leverage Index*
8. TATA *Total Accruals to Total Assets*

E. Operation of Independent Variables

The independent variable is a variable that is the cause or has a theoretical possibility of impacting other variables.

liquidity The liquidity ratio measures a company's short-term liquidity capability by looking at the size of its current assets relative to its current debt [24] and according to [25] Companies with lower liquidity conditions can motivate management to commit fraudulent financial reporting.

Audit Rotation Audit rotation is an auditor turnover regulation that must be carried out by the company, with a view to producing better audit quality and enforcing auditor independence. Based on this calculation the authors use a nominal calculation scale, namely: For auditors in the first year of audits are given a number 1, and if the auditor conducted an audit in the following year is given a number 2 and so on. If the auditor changes in the third year then it starts to be calculated by the number 1 (back to the initial number).

Audit tenure has the objective to create auditor independence and avoid fraud in financial statements. The author would like to research the effect of audit tenure with fraudulent financial statements using dummy variable calculations as follows:

Effect of Financial Liquidity, Audit Rotation and Audit Tenure on Financial Statement Fraud

(1) The duration of the bond or tenure period between the auditor and the company is less than 6 years.

(0) Length of the bond or tenure period between the auditor and the company is more than 6 years.

IV. RESEARCH RESULT

A. Determination Coefficient Test Result

The coefficient of determination test is used to determine the relationship between the dependent variable and the independent variable through the results of the test in the SPSS software. It can be seen that the determination coefficient which is written on adjusted R2 is .020 or 2% the independent variable influences the dependent variable, which means that 98% is influenced by factors other factors.

Table- I: Determination Coefficient Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.241 ^a	.058	.020	.6696127	2.036

a. Predictors: (Constant), x3dummy, x1, x2

b. Dependent Variable: beneish

B. Multiple Linear Regression

The result of multiple linear analyses is to analyze the relationship between independent variables where the independent variable consists of 1 variable, namely fraudulent financial statements of the dependent variable consisting of 3 variables, namely financial liquidity, audit rotation, audit tenure. The multiple linear regression models is written with the following equation:

$$y = \alpha + \beta\text{Liquidity} + \beta\text{RAudit} + \beta\text{ATenure} + \epsilon$$

The result of multiple linear analyses is to analyze the relationship between independent variables where the dependent variable consists of 1 variable, namely fraudulent financial statement; and the dependent variable consisting of 3 variables, namely financial liquidity, audit rotation, audit tenure. The multiple linear regression models are written with the following equation:

$$Y = -2.443 - 0.006 (X1) + 0.247 (X2) - 0.105 (X3) + \epsilon$$

C. Partial Regression

Partially significant test is used to see the effect of each independent variable individually on the dependent variable where in this hypothesis if the significant value < 0.05, then H0 is rejected, meaning that there is a significant influence between one independent variable on the dependent variable. If the significance value is > 0.05, then H0 is accepted, meaning that there is no effect.

In this partial regression test, we test each of our independent variables, which is: financial liquidity, audit rotation and audit tenure to our dependent variables: financial statement fraud. We want to know for sure, which one of these factors which affect significantly to fraudulent financial statement. Below here is table II that show the result of Our statistical test

Table- II: Regression Test Result

Model	Coefficients ^a						
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1							
(Constant)	-2.443	.226		-10.795	.000		
X1	-.006	.049	-.014	-.122	.903	.940	1.064
X2	.247	.121	.255	2.049	.044	.822	1.217
X3	-.105	.198	-.066	-.532	.596	.825	1.212

a. Dependent Variable: Beneish

The result: effect of financial liquidity on financial statement fraud. Based on the results of the previous hypothesis test with the .903 test results where the value is greater than the value of sig. 0.05 and the calculated t value is smaller than t table which shows negative results in other words hypothesis 1 is rejected and hypothesis 0 is accepted. The results of this study support the results of research conducted by [26] where in this study those who use the current ratio indicator as a scale of measurement of research data and use logistic regression statistical analysis methods in their opinion managers tend to be interested in manipulating assets the most liquid is the account right compared to manipulating other current assets. This research was also supported by [27] where in their research the results found were that financial liquidity had no effect in detecting financial statement fraud. However, this study also contradicts the research conducted by [11] that the level of liquidity affects the financial statement fraud in their opinion many companies that have a reputation for bankruptcy due to falsification in financial statements and the inability of stakeholders to detect early the cheating. So expect the calculation of ratios directly related to financial statements can help in the detection of fraudulent financial statements.

The result: effect of audit rotation on financial statement fraud. Based on the results of hypothesis testing that has been done, the results show that the significance value of 0.044 is smaller than the significant value of 0.050 with a value of t count of 2.049 is greater than t table 1.89 which shows positive results prove that audit rotation affects the cheating of financial statements so that the hypothesis 0 rejected and hypothesis 1 accepted. This study supports previous research conducted by [28] where in his research using logistic regression analysis methods get a significant result of 0.997 which is greater than 0.05 and a negative coefficient value of -18.521 which shows that audit rotation has an influence in predicting fraud on financial statements. Based on his research there is a possibility to be able to detect fraud in financial statements depending on the skepticism of auditors who conduct audits. However, this study supports research conducted by [16] who states that the longer the auditor's tenure, the higher the auditor's ability to limit accrual actions by management.

The result: effect of audit tenure on financial statement fraud. Based on the results of hypothesis testing that has been done, researchers get the results of a significance value of .596 where the value is greater than sig. 0.05 and the t value of -.532 is smaller than t table 1.98 which shows negative results in other words hypothesis 1 is rejected and hypothesis 0 is accepted.

This study supports research conducted by [17] which states that auditor changes are very difficult to observe if using secondary data such as viewing financial statements. This study rejects previous research conducted by [18] where the method used is descriptive and verification methods using statistical applications, and the results they get are auditor size and audit tenure influencing the application of audit procedures to detect fraud risk in the audit of financial statements. Where the audit size and audit tenure has 45.30% influences in detecting fraudulent financial statements.

D. Simultaneous Regression

Table- III: Simultaneous Test Result

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	2.053	3	.684	1.526	.215 ^b
Residual	33.180	74	.448		
Total	35.233	77			

a. Dependent Variable: Beneish

b. Predictors: (Constant), x3Dummy, x1, X2

Significance test simultaneously is a test of all independent variables as a whole and together in a model. This test is conducted to see whether the independent variable as a whole has a significant effect on the dependent variable.

We can see from above result that in this study, the simultaneous test is not significant. P value is 21.5% which is higher than 5%. All the independent variables did not have significant effect to dependent variables.

V. CONCLUSION AND SUGGESTION

A. Conclusion

The author conducted this research has the objective to prove that of the three independent variables consisting of financial liquidity, audit rotation, audit tenure has an influence on the prevention of financial statement fraud as the dependent variable. By setting the manufacturing company to go public food and beverage sub sector where in the collection is done by purposive sampling method which results there are 13 companies open for six years so that the total sample collected 78 samples.

In this study the author uses multiple linear analysis because the author wants to take the dependent numbers from the results of the Beneish M-score calculation which was previously discussed that Beneish an accounting professor has identified that there has been a 76% manipulation of income. Based on research conducted by Beneish, it is interesting for researchers to use Beneish m-score as the calculation of the dependent variable. Other statistical tests that the authors set as supporting testing are descriptive statistical tests as a general description of this study and the authors also conduct a classic assumption test as the beginning of multiple linear tests and test hypotheses on each variable that provides the following results:

First variable, financial liquidity variables do not have a positive influence on financial statement fraud. The author's calculated scale is the current ratio where the high current ratio indicates the ability of the entity to pay current liabilities. If the current ratio is low, the company is unable to pay current liabilities which results in inconsistency or fraud in the financial statements. But after doing research the

results that come out are not in accordance with the authors' presumption that the current ratio cannot support to detect fraud in the financial statements because the decrease in the ratio of the current ratio can occur for many reasons.

Second variable, audit rotation or can also be called auditor switching has a positive effect on financial statement fraud. In this variable the author determines the nominal calculation scale where the author looks at the name of each auditor who conducts an audit of a company within a period of time, where in this study the authors collected data for six years, the authors record the number of times in the six years the auditor work for the same company. Based on the results that came out that audit rotation can affect financial statement fraud can be caused by several reasons, one of which is the collaboration between the client and the auditor in manipulating financial statements and many other things. However, the government has issued new regulations relating to audit rotations written in the Minister of Finance Regulation No. 17 / PMK.01 / 2008 article 3 paragraph 1 which reads "Providing general audit services for the financial statements of an entity as referred to in article 2 Paragraph (1) Letter a shall be carried out by the Public Accountant Office for a maximum of 6 (six) consecutive financial years and by a Public Accountant no longer than 3 (three) consecutive financial years.

The last variable, namely audit tenure, does not have a positive influence on financial statement fraud based on the results of data processing. The calculation scale on this third variable is to use a nominal calculation scale with a dummy variable. The point is that in the audit tenure the writer determines how many years in a row the Public Accounting Firm conducts an audit of a company which is then grouped into the number 0 for the company that first audits and number 1 for the company that is not the first time to audit. However, this evidence is not strong so fraud on the financial statements cannot be detected by looking at the effect of the audit tenure.

B. Suggestion

The author conducts this research aims to provide a new picture for readers to deepen the science of accounting economics, especially in the field of auditing besides the authors hope that what the authors do can provide new insights for researchers and can develop the results of this study because there are still many shortcomings which is owned by researchers. It is expected that this research can also convey advice on:

Company and the Public Accountant Office in determining auditors can make more auditors' turnover so that if the same auditor does not conduct audits for a period of more than three years to prevent fraud in financial statements. In addition, for public companies, it is better to provide more complete financial reports every year because there is a lot of research that requires financial statements of companies, especially listed companies, as a basis for data collection.

Further researchers; based on the results of research that has been done, researchers hope that the variables in this study can be developed and can find new and more significant influences.



Effect of Financial Liquidity, Audit Rotation and Audit Tenure on Financial Statement Fraud

Because there are still many shortcomings of this study, the authors hope that future researchers are able to develop this research and can advance the economic prosperity of the nation and reduce the occurrence of fraud in financial statements.

Auditor; two variables that researchers used are related to the independence of the work of an auditor. The results of this study can serve as guidelines and improvements for auditors to maintain the independence of an auditor so that the results achieved can advance the nation and state.

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Wishnu Kameshwara Armand, Lecturer. He holds master degree in Accounting from Trisakti University, Indonesia. He is a member of Institute of Indonesia Chartered Accountants (IAI) and member of Indonesian Institute of Certified Public Accountants (IAPI). He has over 16 years of experience in auditing and accounting services, and has many assurance experiences in public listing companies, manufacturing, trading, professional services and other sectors. He started his career in 2003 as an accountant, and then moved to public accountant firm in 2005 as an auditor. In 2016, he established a Mahsun, Armand, Nugrahanto Public Accountant Firm. In 2017, he joined a partnership of Jamaludin, Ardi, Sukimto & Rekan (JAS) Public Accountant Firm, and active as a Partner until now.



Ari Tihar Marpaung, Lecturer. He holds bachelor degree of economics from Jakarta Economics Higher Education School. He also holds master degree of accounting from University of Indonesia. His research field is in method and practice of auditing and assurance service. He is teaching several auditing subjects, such as: fraud auditing, method and practice of auditing, financial auditing, and internal auditing. He is also a practical in industry. His field of business is in the field of coral mining. He was also active in developing society and communities. He shares his knowledge to the people for developing their business and knowledge for free of charge.



Syntia Yohana Maria, She holds bachelor degree in Accounting from Bina Nusantara University, Indonesia. Her research scope is in the field of financial auditing. Currently she works in public accounting firm. She is the disciple and member of the research team lead by Assistant Professor Bambang Leo Handoko. She has outstanding performance as student. She graduates faster than the targeted time. She finished her study in the same time with finishing her internship work. She took internship in public accounting firm to enhance her skill and knowledge in audit environment. She was listed as one of the notable alumni of Bina Nusantara University undergraduate program, now she continue her study in Master Degree