



The Effect of the Fraud Triangle on Fraud Financial Statements (Case Study on Manufacturing Companies in the Food and Beverage Subsector)

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ABSTRACT

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This study was conducted to analyze the effect of the fraud triangle which consists of financial stability as proxied by ACHANGE, financial targets as proxied by ROA, the nature of the industry as proxied by RECEIVABLE and rationalization proxied by TATA to financial statement fraud as proxied by earnings management. The sample used in this study were 26 food and beverage manufacturing companies listed on the Indonesia Stock Exchange during the 2015-2019 period. The type of data used is secondary data in the form of annual reports of companies listed on the IDX during the 2015-2019 period. Hypothesis testing was carried out using multiple linear regression with SPSS 21 software. The results showed that the nature of industry proxied by RECEIVABLE and rationalization proxied by TATA proved to have an effect on financial statement fraud. This study does not prove that financial stability as proxied by ACHANGE and financial targets as proxied by ROA has an effect on fraudulent financial statements.

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1. Introduction

In the Basic Framework for the Preparation and Presentation of Financial Statements issued by the Indonesian Institute of Accountants (IAI) it is stated that users of financial statements include investors, employees, government and financial institutions, and the public. Financial statements must be presented in accordance with their qualitative elements, including: easy to understand, reliable, comparable, and relevant. The purpose of financial statements is to provide information regarding the financial position, performance, and changes in financial position of an enterprise that is useful to a wide range of users in making economic decisions. For economic decision making, financial statements are influenced by many factors, including: economic conditions, politics and industry prospects. The components of the financial statements implemented in Indonesia have been comprehensively regulated, however, there is still a gap or space for management and certain individuals to commit fraud in financial statements.

Fraudulent financial reporting is a deliberate attempt by companies to deceive and mislead users of financial statements, especially investors and creditors, by presenting and manipulating the material value of financial statements. According to SAS No. 99, financial statement fraud can be carried out by taking the following actions:

- Manipulation, falsification, or alteration of accounting records, supporting documents of the prepared financial statements.
- Intentional omission or omission in information that is significant to the financial statements.
- Deliberately abuse the principles related to the amount, classification, presentation, or disclosure.

Based on the Association of Certified Fraud Examiners (ACFE) in the 2016 and 2019 Indonesian Fraud Surveys, information data related to fraud and the value of fraud losses that occurred were as follows:

2016	<i>Corruption</i>	178	77%
	<i>Asset missappropriation</i>	41	19%
	<i>Financial Statement Fraud</i>	10	4%



2019	Corruption	167	69,9%
	Asset missappropriation	50	20,9 %
	Financial Statement Fraud	22	9,20%

The results of research on financial statement fraud still produce inconsistent findings (Researchers include: Kennedy Samuel Sihombing and Shiddiq Nur Rahardjo (2014), Laila Tiffani and Marfuah (2015), Susmita Ardiyani and Nanik Sri Utaminingsih (2015), Regina Aprilia (2015). 2017), Wahyuni and Gideon Setyo Budiwitjaksono (2017), Lutfiana Oktarigusta (2017), Rowland Bismark Fernando Pasaribu (2018), Septia Dwijayani and Nurzi Sebrina and Halmawati (2019)), so there is a need for further research on financial statement fraud to find out consistency of findings.

This study is intended to analyze and find empirical evidence regarding the Effect of Financial Stability (financial stability), Financial Targets (financial targets), Nature of Industry (industry nature) and Rationalization (rationalization) on Fraudulent Financial Statements Case Studies in Manufacturing Companies in the Food and Beverage Subsector. Listed on the IDX in 2015-2019.

2. Theoretical Framework and Hypotheses Formulation

Financial Statement fraud includes actions taken by officials or executives of a company or government agency to cover up the actual financial condition by carrying out financial engineering in the presentation of its financial statements to gain profits or may be analogous to the term window dressing. (Ni Nyoman Ayu Suryandari (2019:18)). ACFE in Ni Nyoman Ayu Suryandari (2019:18) divides this type of fraud into 2 types, namely: financial and non-financial. For example: Falsifying proof of transactions, recognizing a transaction that is larger or smaller than it should be, applying certain accounting methods inconsistently to increase or decrease profits, applying the asset recognition method in such a way that assets appear larger than they should be, Applying the recognition method liability in such a way that the liability appears smaller than it should be.

Sihombing and Rahardjo (2014) stated that "A Fraud Financial Statement often begins with a misstatement or earnings management of financial statements that are considered immaterial but eventually grow into fraud on a large scale and produce misleading annual financial statements".

The Indonesian Institute of Accountants (IAI, 2001) in Abdul Halim (2018:158) explains accounting fraud as:

- a. Misstatements arising from fraud in financial reporting are misstatements or intentional omission of amounts or disclosures in financial statements to deceive users of financial statements. (ACFE, 2019)
- b. Misstatements arising from improper treatment, this is often referred to as misuse or embezzlement related to the theft of entity assets which results in financial statements not being presented in accordance with generally accepted accounting principles in Indonesia.

Fraud triangle theory is an idea that examines the causes of fraud. This idea was first created by Dr. Donald Cressy, one of the founders of ACFE (Association of Certified Fraud Examiners) in Arum Ardianingsih (2018: 79-80) which is called the fraud triangle or fraud triangle consisting of pressure, opportunity, and rationalization. Fraud triangle theory which is based on Earning Management Theory and Agency Theory can explain why Financial Statement Fraud can occur in various forms. Agency theory describes the relationship between shareholders as principals and management as agents in a cooperation contract called the nexus of contract. The existence of a cooperation contract will certainly cause a conflict of interest between the management and shareholders. Conflict of interest will cause various pressures (Pressure) for the company as an agent to find a way so that the company's performance always increases with the hope that with the increase in performance, the principal will give a form of appreciation (Rationalization). The possibility of fraud will be more open if management has broad access (Capability) as well as opportunities and opportunities to increase profits (Opportunity). The higher the rate of return on investment (in the form of dividends) obtained by the principal, the higher the compensation given to the agent. Ineffective control from the principal will allow the company to carry out illegal actions by deceiving investors through a series of fraudulent actions through creative accounting, for example the existence of uncollectible receivables that should be written off but not written off (lapping), improper sales acknowledgments (fictitious sales).) which in turn has an impact on the value of assets in the balance sheet. In addition, income smoothing can also be done by dividing profits into other periods so that the company seems to be making a profit, when in fact it is losing money or profits are falling.



Pressure, namely the existence of incentives / pressure / need to commit fraud. Pressure can cover almost everything including lifestyle, economic demands, and others including financial and non-financial matters (Ni Nyoman Ayu Suryandari (2019:26)). According to SAS No. 99, there are two types of conditions that commonly occur in pressure that can lead to fraud, namely financial stability and financial targets.

Financial Stability as a Variable to Detect Fraudulent Financial Statements

According to SAS No. 99, managers face pressure to commit fraudulent financial statements when financial stability and/or profitability are threatened by the state of the economy, industry, or the situation of the operating entity (Skousen et al., 2009). Loebbecke et al. (1989) Bell et al. (1991) show that in cases where the company experiences growth that is below the industry average, management will manipulate financial statements to improve the company's prospects (Skousen et al., 2009).

The higher the total assets owned by the company, the more wealth it has. Research conducted by Skousen et al. (2009) proves that the greater the ratio of changes in the total assets of a company, the higher the probability of committing fraud in the company's financial statements. Based on this description, the following research hypotheses are proposed:

H1: Financial Stability has an effect on Financial Statement Fraud.

Financial Targets (financial targets) as a Variable to Detect Fraudulent Financial Statements

In carrying out its performance, company managers are required to perform the best so that they can achieve the planned financial targets. Comparison of earnings to total assets or Return on Assets is a measure of operational performance that is widely used to show how efficiently assets have worked (Skousen et al., 2009).

H2 : Financial Targets Affect Financial Report Fraud

Nature of Industry as a Variable to Detect Fraudulent Financial Statements

Opportunity arises because of weak sanctions, weak internal controls to prevent and detect fraud and the inability to assess performance quality. According to Steve Albrecht (2002) in Arum Ardianingsih (2018: 80) there are several factors that can increase the opportunity to commit fraud, including limited access to information, ignorance, laziness, and not according to the ability of employees, lack of an audit trail.

According to Ni Nyoman Ayu Suryandari (2019: 26) Opportunity is a situation that opens opportunities to allow fraud to occur. Usually occurs due to weak internal company controls, lack of supervision and abuse of authority.

According to SAS No. 99 states that opportunities/opportunities in financial statement fraud can occur in one category of conditions, namely the Nature of industry, which is related to the emergence of risks for companies working in industries that involve significantly greater estimates and considerations (Kusumawardhani, 2013: 6).

H3 : Nature of Industry has an effect on Financial Statement Fraud.

Rationalization as a Variable to Detect Fraudulent Financial Statements

According to Ni Nyoman Ayu Suryandari (2019: 26) Rationalization is the existence of attitudes, characters, or a series of ethical values that allow certain parties to commit fraudulent acts, or people who are in a sufficiently pressing environment that makes them rationalize fraud.

According to SAS No. 99 rationalization in the company can be measured by the auditor turnover cycle, audit opinion obtained by the company and the state of total accruals divided by total assets.

H4 : Rationalization has an effect on Financial Statement Fraud.

3. Research Method

The dependent variable in this study is Earnings Management which is proxied as financial statement fraud. Earnings management can be measured using the Beneish M-Score model (Beneish, 1997 in Septia Dwijayani). This model can be formulated as follows:

$$\text{M-Score} = -4.84 + 0.920\text{DSRI} + 0.528\text{GMI} + 0.404\text{AQI} + 0.892\text{SGI} + 0.115 \text{DEPI} - 0.172\text{SGAI} + 0.327\text{LVGI} + 4.697\text{TATA}$$

If the M-score is less than -2.22, most likely the company will not be a manipulator. If the M-score is greater than 2.22, the company tends to be a manipulator.

Furthermore, the independent variables used in this study are: Financial Stability which is proxied by the ratio of changes in total assets (ACHANGE), financial targets which are proxied by Return On Assets

(ROA), Nature of industry which is proxied by the Accounts Receivable Ratio, and Rationalization which is proxied by proxy by Ratio of total accruals per total assets (TATA)

No	Rasio Keuangan	Rumus
1	Dry Sales in Receivable Index (DSRI)	$DSRI = \frac{Receivables_t / sales_t}{Receivables_{t-1} / sales_{t-1}}$
2	Gross Margin Index (GMI)	$GMI = \frac{Sales_{t-1} - COG_{t-1} / sales_{t-1}}{Sales_t - COG_t / sales_t}$
3	Aset Quality Index (AQI)	$AQI = \frac{1 - (CA_t + PPE_t / TA_t)}{1 - (CA_{t-1} + PPE_{t-1} / TA_{t-1})}$
4	Sales Growth Index (SGI)	$SGI = \frac{Sales_t}{Sales_{t-1}}$
5	Depreciation Index (DEPI)	$DEPI = \frac{PPE_{t-1} + depreciation_{t-1}}{depreciation_t}$
6	Sales General and Administrative Expenses Index (SGAI)	$SGAI = \frac{SG\&A\ Expenses_{t-1} / sales_{t-1}}{SG\&A\ Expenses_t / sales_t}$
7	Leverage Index (LVGI)	$LVGI = \frac{\frac{Current\ Liabilities_t + Long\ Term\ Debt_t}{Total\ Assets_t}}{\frac{current\ liabilities + Long\ Term\ Debt_{t-1}}{Current\ Liabilities_t}}$
8	Total Accrual to Total Assets (TATA)	$TATA = \frac{NICO_t - CFO_t}{Total\ Assets_t}$

Fig 1. Financial Ratio

Table 1

Variable Operation

VARIABEL	INDIKATOR
Financial Stability (X1)	$ACHANGE = \frac{((Total\ Aset_t - Total\ Aset_{t-1}))}{(Total\ Aset_{t-1})}$
Financial Targets (X2)	$ROA = \frac{(Earnings\ After\ Interest\ and\ Tax)}{Total\ Aset}$
Nature of Industry (X3)	$RECEIVABLE = \frac{(Receivable_t / Sales_t)}{(Receivable_{t-1} / Sales_{t-1})}$
Rationalization (X4)	$TATA = \frac{(NICO_t - CFO_t)}{Total\ Assets}$
Kecurangan Laporan Keuangan (Y)	$M-Score = -4.84 + 0.920DSRI + 0.528GMI + 0.404AQI + 0.892SGI + 0.115DEPI + 0.172SGAI + 0.327LVGI + 4.697TATA$

Source: Various Supporting Literature, 2014-2021

3.1 Sampling

In this study, the object of research was carried out at Manufacturing Companies in the food and beverage sub-sector listed on the Indonesia Stock Exchange in 2015 - 2019. In taking the sample, the author used a purposive sampling technique, which is a sampling technique with certain considerations or special selection. The consideration for choosing a population of manufacturing companies in the food and beverage sub-sector is because companies in one type of industry, namely the manufacturing sub-sector, tend to have almost the same accrual characteristics. In addition, data on the financial statements of manufacturing companies in the food and beverage subsector are more reliable in presenting financial statement accounts, such as assets, cash flow, sales, and others.

The criteria used to select the sample are as follows:

- Manufacturing companies that have gone public or are listed on the Indonesia Stock Exchange during the 2015-2019 period
- The company publishes annual financial reports on the company website or the IDX website (www.idx.co.id) for the 2015-2019 period in a row.
- The company publishes annual financial statements expressed in rupiah
- The company did not suffer losses during the 2015-2019 period
- Complete data available, regarding data related to research variables.

There are 43 food and beverage sub-sector manufacturing companies listed on the Indonesia Stock Exchange in 2015 – 2019 as many as 43. Of the total sample, only 26 companies have met the 5 research sample criteria and 17 companies were excluded from the sample because they were considered outliers in the study. So the total sample is 26 companies x 5 years of research, namely 130 samples.



3.2 Analysis Method

Hypothesis testing is done by multiple regression analysis using the following regression equation: The relationship between the fraud triangle and financial statement fraud is measured by the following formula:

$$\text{FRAUD} = \beta_0 + \beta_1\text{ACHANGE} + \beta_2\text{ROA} + \beta_3\text{REC} + \beta_4\text{TATA} + e$$

Keterangan:

- β_0 : Koefisien regresi konstanta
- $\beta_{1,2,3,4}$: Koefisien regresi masing-masing proksi
- ACHANGE : Rasio perubahan total aset tahun 2015-2019
- ROA : Return on Assets
- RECEIVABLE : Rasio perubahan piutang usaha
- TATA : Rasio total akrual per total aset
- e : error

4. Result and Discussion

4.1 Description of Research Sample

Table 2
Descriptive Statistics

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
ACHANGE	42	-,161000	,562000	4,686000	,11157143	,131087225
ROA	42	,029000	,432000	5,467000	,13016667	,099165276
RECEIVABLE	42	-,041000	,078000	,348000	,00828571	,025086471
TATA	42	-,129000	,128000	,948000	,02257143	,055288663
Manajemen Laba	42	-2,938000	-1,363000	-86,024000	-2,04819048	,339521704

Source: Processed secondary data, 2021

Based on a sample of 42 companies that have been studied, it is known that:

The average change in assets in the food and beverage sub-sector manufacturing companies is 0.11157143 or about 11%. This shows that around 11% of the total assets of manufacturing companies in the food and beverage sub-sector have changed from the previous year. From the table, it can also be seen that the standard deviation value for ACHANGE is 0.131087225.

The average ROA as a whole is 0.13016667 indicating that the average sample of companies is able to generate profits by using the assets owned by 13% with a standard deviation of 0.099165276. The average of changes in receivables (RECEIVABLE) is 0.00828571 or 0.82% with a standard deviation of 0.025086471..11.9310.

Total asset to total accrual (TATA) is a proxy for rationalization. When fraud is detected, usually the perpetrator will give a rational reason as a form of self-defense. Rationalization in the company can be measured by looking at the state of accruals divided by total assets. The average total assets to total accrual (TATA) is 0.02257143 or 2.2%, meaning that companies that provide rational reasons are 2.2% and the remaining 97.8% provide irrational reasons.

Discussion of Research Results

Based on SPSS 21 output the coefficient of determination is 0.891. This means that 89.1% of variations or changes in Financial Statement Fraud can be explained by variations in Financial Stability, Financial Targets, Nature of Industry, and Rationalization, while the remaining (10.9%) is explained by other causes outside the regression model.

The ANOVA test or F test shows that the calculated F is 81.55 with a significance level of 0.00. Because Fcount is 81.55 > from F table 2.44 and a significant level is 0.000 < 0.05, it can be concluded that the regression model can be used to predict Financial Statement Fraud or it can be concluded that the four independent variables are jointly affect Financial Statement fraud (Financial Statement fraud)

Hypothesis testing or t-test aims to test the effect of independent variables (financial stability, financial targets, nature of industry and rationalization) separately on financial statement fraud. Here are the results of the T test:

Table 3
Hypothesis Test Results

Variabel	Nilai t	Nilai Signifikansi ($\alpha=5\%$)
Financial Stability	-0.191	,850
Financial Target	-1,137	,263
Nature of Industry	7,459	,000
Rationalization	16,085	,000

Source: Processed secondary data, 2021

4.2 Effect of Financial Stability (financial stability) on fraudulent financial statements

The test results show that financial stability as a proxy for changes in total assets (ACHANGE) has a t value of -0.191 and a significant value of 0.850. The calculated t value is $-0.191 < \text{from the t table of } 2.042$ and a significant value of $0.850 > 0.05$, proving that there is no significant effect on the financial stability variable on financial statement fraud. This happens because the average change in assets is relatively small so that the H1 hypothesis "financial stability affects financial statement fraud" is rejected. This research is in line with research by Rowland Bismark Fernando Pasaribu (2018), Septia Dwijayanti and Nurzi Sebrina and Halmawati (2019), Lutfiana Oktarigusta (2017), argues that the financial stability variable with a proxy for the ratio of changes in total assets (ACHANGE) cannot be used to detect financial statement fraud.

4.3 Effect of Financial Targets (financial targets) on fraudulent financial statements

The test results show that financial targets proxied by return on assets (ROA) have a t-count value of -1.137 and a significant value of 0.263. The calculated t-value is $-1.137 < \text{from t-table of } 2.042$ and a significant value of $0.263 > 0.05$ proves that there is no significant effect on the financial targets variable on financial statement fraud. So the hypothesis H2 "financial targets affect financial statement fraud", is rejected.

This is in line with research conducted by Wahyuni and Gideon Setyo Budiwitjaksono (2017), Laila Tiffani and Marfuah (2015), Kennedy Samuel Sihombing and Shiddiq Nur Rahardjo (2014), who argue that the financial targets variable is a proxy for the ratio of return on assets (ROA). cannot be used to detect fraudulent financial statements. The results of this study support the research of Skousen et al. (2009) did not strengthen the evidence that ROA has an effect on Financial Statement Fraud.

4.4 The effect of the Nature of Industry on fraudulent financial statements

The test results show that the nature of industry as proxied by changes in receivables (RECEIVABLE) has a t-count value of 7.459 and a significant value of 0.000. The calculated t value is $7.459 > \text{the t table value is } 2.042$ with a significant level of $0.000 < 0.05$, proving that there is a significant influence on the nature of industry variable on financial statement fraud. So the hypothesis H3 "the nature of industry affects financial statement fraud", is accepted.

This is in line with research conducted by Rowland Bismark Fernando Pasaribu (2018), Kennedy Samuel Sihombing and Shiddiq Nur Rahardjo (2014), who argue that the nature of industry variable with a proxy for changes in total assets (RECEIVABLE) can be used to detect fraudulent financial statements.

4.5 Effect of Rationalization (rationalization) on fraudulent financial statements

The results of the rationalization test as a proxy for total assets to total accruals (TATA) have a coefficient value of 16.085 and a significant value of 0.000. A significant value of $0.000 < 0.05$ proves that there is a significant influence on the rationalization variable on fraudulent financial statements. So H4 "rationalization affects financial statement fraud", is accepted. This is in line with the research conducted by Kennedy Samuel Sihombing and Shiddiq Nur Rahardjo (2014), Lutfiana Oktarigusta (2017) who argue that the rationalization variable with the total assets to total accrual (TATA) proxy can be used to detect fraudulent financial statements.

5. Conclusions

Financial stability, which is a proxy for the pressure variable and measured by the ratio of changes in total assets (ACHANGE), has no significant effect on financial statement fraud. This is due to the instability



of the company's financial condition does not affect management to manipulate financial statements. Financial Targets (financial targets) which are proxies of the pressure variable and measured by return on assets (ROA) have no significant effect on financial statement fraud. This means that there is pressure from companies to get better profits than the previous year or the level of return on assets (ROA) does not affect management to manipulate or fraud financial statements. The nature of industry which is a proxy for opportunity which is a proxy for the change in receivables ratio (RECEIVABLE) has a significant effect on financial statement fraud. This indicates that the size of the ratio of changes in receivables affects the occurrence of fraudulent financial statements. Rationalization which is a proxy for rationalization and measured by total assets to total accruals (TATA) has a significant positive effect on financial statement fraud. It can be concluded that if discretionary accruals increase, the probability of fraudulent financial statements will increase.

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