Variables Related to the Formation of Financial Statement Fraud with Beneish M Score in the Triangle Theory Concept Framework

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ABSTRACT

This research was conducted on manufacturing companies listed on the Indonesia Stock Exchange for the period 2018-2020. The purpose of this study was to determine how much influence Pressure, Opportunity, and Rationalization on Fraudulent Financial Statements were measured using the proxies of Financial Stability, Financial Target, External Pressure, Personal Financial Need, Ineffective Monitoring, Nature of Industry, and Rationalization. The unit of analysis in this study is the company's financial statements. The sample in this study as many as 23 companies during the research year period amounted to 3 years resulting in 69 respondents. The analytical method of this study uses logistic regression analysis. The conclusion of this study shows that Financial Stability and Ineffective Monitoring have an effect on Financial Statement Fraud. Meanwhile, Financial Target, External Pressure, Personal Financial Need, Nature of Industry, and Rationalization have no effect on Financial Statement Fraud.

INTRODUCTION

Fraud has received media attention as a frequent dynamic. Fraud has different meanings for different people in different situations. According to (Singleton & Singleton, 2010) in general, fraud is a crime, which includes all the ways that can be devised by human intelligence and intelligence carried out by an individual to gain advantage by means of a false representation. Management fraud is a misrepresentation of the level of performance of the company or unit by employees who have a role in management to seek benefits in terms of promotions, economic incentives, and status.

In the context of an audit of financial statements. According to (Arens, Elder, & Beasley, 2015) fraud is defined as misreported financial statements. According to (Rachmania, 2017) reporting violations as intentional deviations from company records such as errors in applying accounting principles that report material financial statements.

According to the Financial Accounting Standards in the basic framework for the preparation and presentation of financial statements (Indonesian Accounting Association (IAI), 2018) the purpose of financial statements in general is to provide information about the financial position, financial performance, and cash flows of entities that are beneficial to most users of the report. finance in making economic decisions. Financial statement information functions optimally if it is presented in accordance

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with its qualitative elements, including: easy to reach (understandable), reliable, comparable, and relevant.

In this case, management has an important role in a company, especially in terms of presenting financial statements which will be used as a basis for decision making. Differences in interest in management can affect the quality of financial statements. As a result, the increase in fraudulent financial statements will not only impact individual investors but also on global economic stability.

From various theories, there are several factors that cause fraud, including the fraud triangle theory which was first developed by (Cressey, 1953) in (Skousen, Smith, & Wright, 2009), stating that fraud is caused by 3 (three) conditions, namely pressure, opportunity, and rationalization/justification.

Several previous researchers have tried to prove the truth of the fraud triangle in detecting fraud in financial statements. Researchers include (Sari, 2016), (Rachmania, 2017) which show fraud risk factors that can be used in detecting fraud (fraud) include: financial stability, financial targets, personal financial needs, external pressure, ineffective monitoring, the nature of the industry, and rationalization/justification.

The Association of Certified Fraud Examiners or the Association of Certified Fraud Examiners, classifies fraud known as the “fraud tree”, namely asset misappropriation, false statements or false statements and corruption. Based on the results of a survey conducted by ACFE Indonesia in 2019 shows that Financial Statement Fraud has a presentation of 6.7% where Misuse of State & Company Assets/Wealth is at the second level with a presentation of 28.9% and Corruption is in the first place the most common fraud in Indonesia. Indonesia with a presentation of 64.4%.

Financial statement fraud has become a significant problem, the auditor as the responsible party must be able to detect fraudulent activity before it develops into a scandal that harms various parties. However, sometimes cases of fraudulent financial statements that occur in Indonesia are audit failures carried out by the Public Accounting Firm.

The case of Wirecard, a German financial services company that was caught in a scandal of billions of euros or trillions of rupiah. Quoted from CNBC Indonesia, this case began with an examination carried out by consultants and auditors Ernst & Young (EY) while testing the company's financial statements. EY rejected the balance sheet for 2019 and said financial statement fraud by finding the existence of fictitious funds worth 1.9 billion euros (US$ 2.1 billion) or equivalent to Rp. 30 trillion (assuming an exchange rate of Rp. 15,824) which the company said was deposited in several bank accounts in Asia, but could not be found.

Financial reports in a company are expected to provide financial information that is understandable, reliable, comparable and relevant to interested parties so as to produce good decisions. However, the relevance of the value of accounting information is decreasing from time to time so that the information contained in it can no longer be used as a reference in decision making. This is caused by fraudulent actions in financial statements (financial statement fraud). Fraud is very detrimental to users of financial statements because the information contained in it cannot be relied on as a basis for decision making and affects global economic stability.

The Association of Certified Fraud Examiners (ACFE) divides fraud into 3 (three) main branches, namely Asset Misappropriation, Corruption & Financial Statement Fraud. According to data from the ACFE 2020 survey, the losses resulting from fraudulent financial statements reached $954,000. The variable used in this study refers to the fraud triangle which was first discovered by Cressey. Where there are three general conditions that always exist at the time of fraud. The three conditions are pressure, opportunity, and rationalization.

MATERIALS AND METHODS

The research method used in this study is an associative research type with a quantitative method approach. By using this research method, it will be known that there is a significant relationship between the variables studied so as to produce conclusions that will clarify the picture of the object under study.
This study aims to analyze the relationship between the independent variable which is a component of the fraud triangle and the dependent variable, namely financial statement fraud. So the unit of analysis in this study is the annual financial report of manufacturing companies listed on the Indonesia Stock Exchange (IDX), the number of samples as many as 23 companies.

Based on the relationship between variables, this study uses the dependent variable/dependent variable and independent variable/independent variable. The dependent variable (dependent) in this study is financial statement fraud, which is measured using the Beneish M-Score model. While the independent variables (independent) consist of Pressure = financial stability, financial targets, external pressure, and personal financial need. Opportunity = ineffective monitoring, nature of industry, and Rationalization = auditor's opinion. The following is the Beneish M Score model for the dependent variable:

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

<table>
<thead>
<tr>
<th>Percentage of callus formation (%)</th>
<th>Table 1. Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSRI</td>
<td>Accounts Receivable / Salest</td>
</tr>
<tr>
<td></td>
<td>Accounts Receivable-1 / Salest-1</td>
</tr>
<tr>
<td>GMI</td>
<td>(Salest-1 - COGSt-1) / Salest-1</td>
</tr>
<tr>
<td></td>
<td>(Salest - COGSt) / Salest</td>
</tr>
<tr>
<td>AQI</td>
<td>1 - (CAt + PP&amp;E) / TAt</td>
</tr>
<tr>
<td></td>
<td>1 - (CAt-1 + PP&amp;E-1) / TAt-1</td>
</tr>
<tr>
<td>SGI</td>
<td>Sales t</td>
</tr>
<tr>
<td></td>
<td>Sales t-1</td>
</tr>
<tr>
<td>DEPI</td>
<td>(Depreciation / (Depreciation + PP&amp;E))t-1</td>
</tr>
<tr>
<td></td>
<td>(Depreciation / (Depreciation + PP&amp;E))t</td>
</tr>
<tr>
<td>SGAI</td>
<td>(SGA Expense / Sales)t</td>
</tr>
<tr>
<td></td>
<td>SGA Expense / Sales)t-1</td>
</tr>
<tr>
<td></td>
<td>((Long Term Debt + Current Liabilities) / Total Assets)t</td>
</tr>
<tr>
<td></td>
<td>((Long Term Debt + Current Liabilities) / Total Assets)t-1</td>
</tr>
<tr>
<td>LVGI</td>
<td>Net Income from Continuing Operations(t)</td>
</tr>
<tr>
<td></td>
<td>– Cash from Operating</td>
</tr>
<tr>
<td></td>
<td>Total Assets(t)</td>
</tr>
</tbody>
</table>

The data obtained are, among others, total assets, total liabilities, net income after tax, the number of shares owned by management, the number of outstanding shares (total common share outstanding), net cash from operating activities (net cash procured by operating activities), accounts receivable, sales, cost of goods sold, current assets, assets fixed assets, depreciation, sales and general administration expenses, long term debt, current liabilities, income from operating, total independent board of commissioners, total number of board of commissioners, audit opinion.

The analysis used in this study is logistic regression analysis to see the effect of independent variables consisting of pressure = financial stability, financial targets, external pressure, personal financial need, opportunity = ineffective monitoring, nature of industry, and Rationalization of the dependent variable of Financial Statement Fraud in manufacturing companies on the IDX. The logistic regression model in this study is as follows:
\begin{equation}
\ln \frac{\text{Fraud}}{1-\text{Fraud}} = \beta_0 + \beta_1 \text{ACHANGE} + \beta_2 \text{ROA} + \beta_3 \text{LEV} + \beta_4 \text{OSHIP} + \beta_5 \text{BOUT} + \beta_6 \text{RECEIVABLE} + \beta_7 \text{OPINI} + \epsilon \tag{1}
\end{equation}

RESULTS AND DISCUSSION

This study is a test of the factors that influence financial statement fraud in manufacturing companies listed on the Indonesia Stock Exchange. This study observes 7 variables, namely pressure consisting of financial stability, financial targets, external pressure, personal financial need, opportunity (opportunity) which consists of ineffective monitoring, nature of industry, and rationalization.

1. Overall Model Fit Test

Tabel 2. Block 0: Beginning Block. Iteration History

Tabel 3. Block 1: Beginning Block. Iteration History
The first step is to assess the feasibility of the regression model with the assumption that the probability used is 0.05. If you pay attention to table 2 and table 3, the initial number in -2 log likelihood block number 0 is 95.524 while -2 log likelihood block number 1 is 80.216.

Table 2 presents the output results that in this study when the x variable is not included in the model, the -2 log likelihood value is 95.524, then the chi square value is 88.25016. 95.524 > 88.25016, then H0 is rejected and this shows that the model before being included in the x variable still does not meet the test requirements.

Table 3 presents the output results that in this study when the x variable was included in the model, the -2 log likelihood value was 80.216, then the chi square value was 80.23210. 80.216 < 80.23210, then H0 is accepted and this indicates that the model after the inclusion of the x variable has met the test requirements.

In this model the overall model fit at -2log likelihood block 0 shows a decrease in -2log likelihood block 1. This decrease indicates that the model fits the data.

2. Omnibus Test

Tabel 4. Omnibus Tests of Model Coefficients

Table 4 presents the output results that in this study the calculated chi square value is 15.308, then the chi square table obtained is 14.06714 so that 15.308 > 14.06714, and the sig value is 0.032 and this is smaller than 0.05, so the conclusion is is simultaneously variable X has a significant effect on variable Y.

3. Cox and Snell's R Square dan Nagelkerke's R Square

Cox and Snell's R Square is a measure that tries to imitate the size of R2 in multiple regression which is based on the likelihood estimation technique with a maximum value of less than 1 (one) so it is difficult to interpret. Nagelkerke's R Square is a modification of the Cox and Snell's R2 coefficient to ensure that its value varies from 0 (zero) to 1 (one). The value of Nagelkerke's R2 can be interpreted as the value of R2 in multiple regression. The results of the Nagelkerke's R Square value can be seen in table 5 below:

Tabel 5. Model Summary

Table 5 presents the output results that in this study there is a Nagelkerke R Square value of 0.265 or equivalent to 26.5%. So the conclusion is that variable X in this study has the ability to explain variable Y by 26.5% and 73.5% is explained by other factor variables that were not taken by the researcher.
4. Regression Model Feasibility Test Results

Table 6. Hosmer and Lemeshow Test

<table>
<thead>
<tr>
<th>Step</th>
<th>Chi-square</th>
<th>df</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8,569</td>
<td>8</td>
<td>.360</td>
</tr>
</tbody>
</table>

Table 6 presents the output results that in this study the chi square count of 8,569 is smaller than 14,06714 with sig. 0.380 is greater than 0.05 so that H0 is accepted, so it can be concluded that the model is able to predict the value of the observation.

5. Classification Test

Table 7. Classification Table

<table>
<thead>
<tr>
<th>Observed</th>
<th>Tidak Terindikasi Mencurangi</th>
<th>Terindikasi Mencurangi</th>
<th>Predicted</th>
<th>Percentage Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>Y_Financial Statement Fraud</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>11</td>
<td>66.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>29</td>
<td>60.8</td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td></td>
<td>73.9</td>
<td></td>
</tr>
</tbody>
</table>

Table 7 presents the output results that in this study the number of samples that are not indicated to commit fraud are 22 + 11 = 33 companies, of which 22 companies are actually not indicated to commit fraud while 11 companies that should not be indicated to commit fraud are indicated. Then the number of samples indications of fraud are 7 + 29 = 39 companies, of which 7 companies are actually indicated to have committed fraud, while 29 companies that should have been indicated to have committed fraud were not indicated.

6. Logistics Regression Test Results:

Table 8. Variabel in the Equation

<table>
<thead>
<tr>
<th>Variables in the Equation</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig</th>
<th>Exp(B)</th>
<th>95% C.I. for EXP(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X1_Financial_Stability</td>
<td>.375</td>
<td>.188</td>
<td>4.943</td>
<td>1</td>
<td>.045</td>
<td>1.466</td>
<td>(1.008, 2.163)</td>
</tr>
<tr>
<td>X2_Financial_Targ</td>
<td>-1.124</td>
<td>2.670</td>
<td>0.007</td>
<td>1</td>
<td>.649</td>
<td>.355</td>
<td>(0.003, 41.141)</td>
</tr>
<tr>
<td>X3_Exterm_Pres</td>
<td>-2.941</td>
<td>1.513</td>
<td>1.920</td>
<td>1</td>
<td>.177</td>
<td>.138</td>
<td>(0.007, 2.519)</td>
</tr>
<tr>
<td>X4_Personal_Financ</td>
<td>1.009</td>
<td>.604</td>
<td>0.009</td>
<td>1</td>
<td>.923</td>
<td>.001</td>
<td>(.000, 1.000)</td>
</tr>
<tr>
<td>X5_Ineffective_Mon</td>
<td>.491</td>
<td>.215</td>
<td>5.007</td>
<td>1</td>
<td>.025</td>
<td>1.626</td>
<td>(.000, 5.529)</td>
</tr>
<tr>
<td>X6_Name_Industr</td>
<td>1.226</td>
<td>.198</td>
<td>12.96</td>
<td>1</td>
<td>.000</td>
<td>3.411</td>
<td>(1.250, 1.847)</td>
</tr>
<tr>
<td>X7_Rationaliz</td>
<td>2.135</td>
<td>2.524</td>
<td>6.455</td>
<td>1</td>
<td>.011</td>
<td>8.497</td>
<td>(1.746, 20.349)</td>
</tr>
<tr>
<td>Constant</td>
<td>.161</td>
<td>.205</td>
<td>0.000</td>
<td>1</td>
<td>.930</td>
<td>.100</td>
<td>(.000, 1.000)</td>
</tr>
</tbody>
</table>

The variables entered on step 1: X1_Financial_Stability, X2_Financial_Targ, X3_Exterm_Pres, X4_Personal_Financ, X5_Ineffective_Mon, X6_Name_Industr, X7_Rationaliz.
The formula for the equation of the logistic regression model from this study was obtained:

$$FSF = -19.616 + 0.376FS - 1.124FT - 2.041EP - 0.027PFN + 0.225NOF + 22.150R + \varepsilon \ldots (2)$$

From the results of the logistic regression analysis test in table 8 to see the effect of the independent variable on the dependent variable, it can be explained as follows:

1. Financial Stability

   The results of the study have an exp (B) value of the X1 variable which is 1.456. This indicates that financial stability tends to increase financial statement fraud by 1,456 times. Then the output results show that financial stability has a sig value of 0.045 which is smaller than the value of 0.05 (0.045 < = 0.05), then the hypothesis is accepted and the X1 variable has an effect on Y.

   The ratio of changes in assets is an analysis that is commonly used to see whether the company's financial stability can increase every year which reflects that the company's performance is good and in other words the company is in a stable condition. Research conducted by (Skousen, Smith, & Wright, 2009) proves that the greater the ratio of changes in total assets of a company, the probability of committing fraud in the company's financial statements is higher. The results of this study support the results of research conducted (Sari, 2016; Rianti, 2020), but do not support the results of research (Rachmania, 2017; Haryono, 2017; Mekarsari, 2018).

2. Financial Target

   The results of the study have the exp value (B) of the X2 variable is 0.325. This indicates that the financial target tends to increase the financial statement fraud by 0.325 times. Then the output results show that the financial target has a sig value of 0.649 which is greater than the value of 0.05 (0.649 > = 0.05), then the hypothesis is rejected and the X2 variable has no effect on Y.

   When the company operates, management often sets the amount of profit that must be obtained for the business expended, such conditions are called financial targets. According to (Skousen, Smith, & Wright, 2009) return on assets (ROA) is often used to assess the performance of managers in determining bonuses, wage increases, and others.

   The previous year's ROA will be used by management to set financial targets for the following year. Thus, if management has been able to generate profits in accordance with the target, the lower the management will manipulate earnings which is a form of fraud. In the results of this study return on assets has no effect on fraudulent financial statements, because the company has the ability to achieve the target set. The results of this study support the results of research conducted (Haryono, 2017; Mekarsari, 2018; Rianti, 2020), but do not support the results of research (Sari, 2016; Rachmania, 2017).

3. External Pressure

   The results of the study have the exp value (B) of the X3 variable is 0.130. This indicates that external pressure tends to increase financial statement fraud by 0.130 times. Then the output results show that external pressure has a sig value of 0.177 which is greater than the value of 0.05 (0.117 > = 0.05), then the hypothesis is rejected and the X3 variable has no effect on Y.

   According to (Skousen, Smith, & Wright, 2009) external pressure is excessive pressure on management to meet the requirements or expectations of third parties. This pressure was a result of the need to acquire additional debt and equity in order for the company to remain competitive.

   However, this study shows that external pressure has no effect on fraudulent financial statements. This is because the company has a high ability to pay debts, which means the company has pressure to look for additional capital. According to (Rahmanti, 2013) there are companies that choose to reissue shares to obtain additional business capital without having
to commit fraud on the financial statements. The results of this study support the results of research conducted (Haryono, 2017), but do not support the results of research (Sari, 2016; Rachmania, 2017; Mekarsari, 2018; Rianti, 2020).

4. Personal Financial Need
   The results of the study have an exp (B) value of the X4 variable which is 0.973. This indicates that personal financial need tends to increase financial statement fraud by 0.973 times. Then the output results show that personal financial need has a sig value of 0.607 which is greater than the value of 0.05 (0.607 > = 0.05), then the hypothesis is rejected and the X4 variable has no effect on Y.

   According to (Beasley, 1996; COSO, 1999; Dunn, 2004) in (Skousen, Smith, & Wright, 2009) shows that when company executives have a strong financial role in the company, the personal financial need of company executives will affect financial performance. With the unclear separation between owners and control of the company triggers the managers to use company funds arbitrarily for personal gain. However, in this study, the separation of interests does not affect the level of fraud in a financial statement. The results of this study support the results of research conducted (Rachmania, 2017; Mekarsari, 2018; Dwijayani, 2019), but do not support the results (Haryono, 2017; Rianti, 2020).

5. Ineffective Monitoring
   The results of the study have an exp (B) value of the X5 variable which is 0.008. This indicates that ineffective monitoring tends to increase financial statement fraud by 0.008 times. Then the output results show that ineffective monitoring there is a sig value of 0.025 which is smaller than the value of 0.05 (0.025 < = 0.05), then the hypothesis is accepted and the X5 variable has an effect on Y.

   Agency theory can be related to the ineffective monitoring variable when there is a relationship between the principal and agent in a contract, this benefits the agent who is always in the company almost all the time compared to the principal and causes an imbalance of information between the two parties. Fraudulent financial reporting can occur due to the absence of an effective supervisory unit to monitor the company's performance. The results of this study support the results of research conducted (Sari, 2016), but do not support the results of research (Rachmania, 2017; Haryono, 2017; Mekarsari, 2018; Rianti, 2020).

6. Nature of Industry
   The results of the study see the value of exp (B) of the X6 variable is 1.253. This indicates that the nature of the industry tends to increase financial statement fraud by 1,253 times. Then the output results show that the nature of industry has a sig value of 0.255 which is greater than the value of 0.05 (0.255 > = 0.05), then the hypothesis is rejected and the X6 variable has no effect on Y.

   According to (Skousen, Smith, & Wright, 2009) fraudulent financial statements against accounts receivable can be determined based on estimates for uncollectible accounts. So that management can commit fraud by assessing subjectively by determining the balance of receivables in the financial statements. However, in this study, accounts receivable turnover has no effect on fraudulent financial statements, this can happen if the company has a good internal audit. Where the results of this study support the results (Mekarsari, 2018), but do not support the results (Haryono, 2017; Rianti, 2020).

7. Rationalization
   The results of the study have an exp (B) value of the X7 variable which is 4165. This indicates that rationalization tends to increase financial statement fraud 4165 times. The output results show that rationalization has a sig value of 0.999 which is greater than the value of 0.05 (0.999 > = 0.05), so the hypothesis is rejected and the X7 variable has no effect on Y.

   According to (Skousen, Smith, & Wright, 2009) rationalization is a difficult factor to measure in detecting fraud. So that the auditor's opinion is needed in providing some opinions on the conditions that occur in the company. However, sometimes the fraudulent financial statements that occur are part of the failure of the audit conducted by the Public Accounting...
Firm (KAP). So in this study, rationalization assessed through audit opinion has no effect on fraudulent financial statements. The results of this study support the results of the study (Haryono, 2017), but do not support the results of the study (Mekarsari, 2018).

CONCLUSIONS AND SUGGESTION

The influence of the pressure variable on financial statement fraud as measured by the financial stability proxy has a significant partial effect, the remaining financial target, external pressure, and personal financial need have no effect, the opportunity variable on financial statement fraud measured by the ineffective monitoring proxy has a significant partial effect and the nature of industry has no effect, the rationalization variable on financial statement fraud partially has no effect.

The next research is expected to be able to add proxy variables from the fraud triangle so that the coverage variable becomes wider by using other new indicators such as pentagon diamond fraud in indicating financial statements (fraud financial statements).

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