Pentagon Fraud Analysis in Detecting the Potential of Lack of Financial Statements (Empirical Study on Mining Companies Registered in Indonesia Stock Exchange within Period 2016-2019)

Sri Kurniawati*, Fitria Permatasari, Nuzulul Hidayati, Ruwaida
Faculty of Economics and Business, Universitas Persada Indonesia YAI, Jakarta, Indonesia

Abstract: This study aims to analyse the effect of pentagon fraud in detecting potential fraudulent financial statements at mining companies listed on the Indonesia Stock Exchange for the period 2016-2019. Pressure is proxied by financial stability, external pressure, and financial targets. Opportunity is proxied by the nature of industry and ineffective supervision. Rationalization is proxied by the change of auditors. Competence is proxied by a change of directors. Arrogance is proxied by the frequency of CEO photo picture in company annual report. In this study, the F-score model is used to determine fraudulent financial statements. The data used in this study are secondary data obtained from the annual financial reports of mining companies listed on the Indonesia Stock Exchange for the period 2016-2019. The sample selection technique in this study was purposive sampling for 17 mining companies with a study period of four years, 2016 to 2019. The data analysis tool used is panel data regression using the Eviews 9 program. The results of this study indicate that the external pressure variable has an effect on the detection of financial statement fraud, while the variables of financial stability, financial targets, industrial characteristics, ineffective supervision, rationalization, competence, and arrogance have no effect on the potential for fraudulent financial statements of mining companies listed on the Stock Exchange Indonesia for the 2016-2019 period. Keywords: Pentagon Fraud, Financial Stability, External Pressure, Financial Targets, Nature of Industry, Ineffective Oversight, Rationalization, Competence, Arrogance and Financial Statement Fraud Detection.

BACKGROUND

Within a company, financial reports are the most important instrument in operational activities as the main medium for disseminating financial information within the company. The financial report is a structured presentation of the financial position and financial performance of an entity that is useful for users of financial statements in making decisions. PSAK No. 1 explains that the purpose of financial statements is to present information about the company's financial position, company performance, and changes in financial position during the accounting period. The information presented in the financial statements must be relevant, reliable, consistent, easy to understand, and can be compared (comparable) making it easier for the user to take a decision (Warsidi et al., 2018).

The phenomenon of financial reporting fraud also occurs in the mining sector in Indonesia due to the fluctuating global commodity market prices and is very vulnerable to various threat conditions, especially external factors that result in fraud. According to data from ACFE, 2016 was also proven to have cheated on financial statements by 0.9%, while oil and gas was ranked 11th in committing fraud (Vivianita & Indudewi, 2019). The case of fraud can be seen when the Indonesia Corruption Watch (ICW) reports the alleged manipulation of the sales turnover report of 3 coal mining companies belonging to the Bakrie Group with indications of a partnership by PT Bumi Resources Tbk and its subsidiaries since 2003-2008 which caused the state loss USS 620.49 million. In addition, in 2012, the mining company PT Garda Tujuh Buana Tbk (GTBO) manipulated its financial statements because there were suspicions of inappropriate reports in the 2012 period. The sales value decreased 78.75% to Rp 26.37 billion compared to the sales value in the previous year period of Rp. 124.10 billion. These results prove that there is a value gap that is suspected to have occurred due to fraudulent financial reporting.

According to Soda (2016) from the magazine mining.com, PT. Timah Persero Tbk in 2016 allegedly...
made fictitious financial reports to cover the alarming financial performance for three years of unhealthyness, resulting in a loss of 59 billion (www.tambang.co.id). Still in the same year, PT Chakra Mineral TbK also experienced a case of embezzlement by the directors deliberately by inflating the value of its assets and exaggerating the value of the paid-up capital by PT.Takaras and PT Murui, causing investors to suffer losses due to false disclosures. PT. Takaras and PT Murui reported that 55% of their shares had been acquired by PT. Cakra Mineral in 2014-2015 report (www.beritalima.com).

This phenomenon illustrates that cheating is still common. The factors that cause fraud - are called the Fraud Triangle - introduced by Donald R. Cressey (1953) which consists of Pressure, Opportunity and Rationalization then developed into Fraud Diamond which was introduced by Wolfe and Hermanson (2004) by adding one variable, namely Capability. Moreover along with the development of the latest fraud model, there was a Fraud Pentagon discovered by Jonathan Marks (2012) known as Crowe's Fraud Pentagon Theory which added a new variable, namely Arrogance. One theory could be used to perform detection against fraud is Fraud Pentagon Theory which consists of five elements of Pressure, Opportunity, Rationalization, Competence and Arrogance.

The first factor is Pressure, which is an encouragement or motivation that causes someone to commit cheating (Aprilia, 2017). This element has three proxy variables that consists of Financial Stability, Financial Targets and External Pressure. The second factor, namely Opportunity, is a condition that allows the perpetrator to commit fraud (Aprilia, 2017). This action could occur due to the weakness of the internal control system that did not work effectively carried out by an independent audit committee that came from outside the company and had little knowledge of the scope of the company so that it felt that it was not closely monitored. This element can be proxied by the Nature of Industry and Ineffective Monitoring.

The third factor is Rationalization, which is a thought that can make someone justify his actions even though the act is wrong by looking for rational reasons to justify their actions (Aprilia, 2017). An unethical attitude was taken by the company's management to change auditors in order to prevent traces of fraud from being detected by the previous auditors to cover up fraud because the new auditors did not understand the condition of the company so well. This element can be proxied by a change in auditor. The fourth factor is Competence, which is a person's ability to put aside internal control and control it according to his social position for his personal interests (Cressey, 1953). Companies that commit acts of fraud usually change the board of directors, which indicates that there is political interest in the board of directors because at that time there was a stress period when the company's condition was unstable. This element can be proxied by a change of directors (Change in Director).

The fifth factor, Arrogance, is a low conscience which is superiority, namely the arrogance of someone who believes that internal control cannot be done personally (Aprilia, 2017). This arrogant and greed attitude arises because the CEO wants to maintain his position in the company by showing his position status. This element can be proxied by the Frequent Number of CEO's Picture. Arrogance is arrogance that arises from the belief that he is capable of cheating and that some control cannot befall him so that the perpetrator thinks freely to do it again without fearing that someone will ensnare him (Achsin & Cahyaningtyas, 2015).

**BASIS OF THEORY AND HYPOTHESIS**

**Agency Theory**

In a company usually does not escape a problem where the problem can occur due to several aspects that are carried out by the principal (principal) with the manager. The difference in understanding that occurs is usually caused by a different argument for the uncertainty between transaction costs and information. This is commonly known as agency conflict. This problem arises based on the different interests between the principal and the agent which is the basis of a problem. According to Jensen and Meckling (1976), an agency relationship is a contract in which one or more people (principal) order another person (agent) to perform several services on behalf of the principal and authorize the agent to make the best decisions for the principal. According to Yantho and Pramuka 2007 in Pamungkas et al., (2018), the results of the contract between the principal and the agent are that the company manager acts as an agent who has an obligation to increase owner's profits while maximizing the welfare of employees.

**Positive Accounting Theory**

This theory developed by Watts and Zimmerman (1986) has a focus point on the relationships that occur between individuals and on how accounting is used to help function relationships. The relationship in question is between the agent and the principal. The assumption underlying this theory is that all actions taken by individuals are driven by personal interests by utilizing opportunities to achieve the desired goals.

According to Watts and Zimmerman (1986) the objective of positive accounting is to explain and predict accounting practices that include providing reasons for observed practices and predictions of accounting practices in unobserved phenomena.
Signaling Theory

Signaling Theory was proposed by Akerlof in 1970. According to Spence (1973) in Hugo (2018). Signaling Theory explains information asymmetry in the form of quality and quantity of data between internal and external parties of the company. This theory states that a good quality company will deliberately give a signal to the market in the form of information so that it is expected to differentiate between good and bad quality companies by placing the manager as the mandate holder who has the obligation to convey information including performance, financial position, and other circumstances to owner. In addition, signal theory is used to explain that basically financial reports are used by companies to provide positive and negative signals to users.

Cheating (Fraud)

According to Sihombing & Rahardjo (2014) fraud is an act of misusing everything that belongs to the public intentionally, willing, knows, and is aware, for example, a manager to get a reward from the company manipulates financial statements to make it appear that they are achieving the profit target expected by the company. Fraudulent acts committed by top management to defraud investors or other stakeholders can also be involved in securing contracts to reduce costs that indirectly benefit offenders through promotions or salary increases.

Webster's New World Dictionary in Rusmana and Tanjung (2019) defines fraud as a deception carried out for personal gain while according to the International Standards of Auditing section 240- The Auditor's responsibility to Consider Fraud in an Audit of Financial Statement paragraph 6 defines Fraud is a deliberate act by members of company management, parties who play a role in company governance, employees, or third parties who commit lies or fraud to obtain unfair or illegal profits.

Fraudulent Financial Statement

Fraudulent financial reporting constitute a waiver of the number of misstatements and disclosure deliberate not in accordance with the accounting principles that the financial condition look attractive in the eyes of the user, there could be reporting a lower (understates) the liabilities and expenses, or reported higher-than the actual (overstates) on assets or income. In the presentation of financial statements there may be deliberate material misstatement in the financial statements. Financial statement fraud can be described as an attempt by a company to deliberately mislead users of financial statements, for example investors and creditors who are tricked by financial statements that are materially misstated and their financial information is omitted (Rezaee, 2005).

Fraud Triangle Theory

A sociologist and criminologist named Cressey in 1953 conducted research with a focus on the condition in which an individual could be involved in unethical fraudulent activities. The result of this research is known as the Fraud Triangle Theory. This fraud triangle model identifies the risk factors for fraud consisting of Pressure, Opportunity, and Rationalization.

Fraud Diamond Theory

Wolfe and Hermanson (2004) argue that q lot of fraud that occurs, even some are worth billions of dollars and it will not happen without the right people with certain abilities. Opportunities open the door to committing cheating, and pressure and rationalization can draw people in that direction. But the person must have the ability to recognize an open door as an opportunity and to exploit it must be done at the right time and the right ability to carry out the fraudulent act. The ability in question is the individual nature that encourages them to look for opportunities and take advantage of them.

Therefore, in 2004 Wolfe and Hermanson introduced a theory which they discovered as the Fraud Diamond Theory. This theory is a refinement of the triangular theory of fraud (Fraud Triangle Theory) by adding the Capability as the fourth element in addition to the Pressure, Opportunity, and Rationalization that have previously been described in the fraud triangle theory.

Fraud Pentagon Theory

This theory is a theory that updates and explores more deeply about the factors that trigger existing fraud, namely the Fraud Triangle Theory and Fraud Diamond Theory. Crowe added two elements of fraud which include Competence and Arrogance on the grounds that the perpetrators of fraud are currently considered to have a more independent mindset, more adequate information access and broad company assets than the perpetrators of fraud when the fraud triangle theory was launched. Competence has a meaning similar to ability (Capability) which was previously described in the Fraud Diamond Theory by Wolfe and Hermanson in 2004.

According to Crowe, Arrogance is an attitude of superiority over rights and feels that internal controls and company policies do not apply to him. This arrogant attitude arises from the belief that he is capable of committing fraud and the existing control cannot befal him so that the perpetrator thinks freely to commit fraud without fearing that someone will ensnare him (Achsin & Cahyaningtyas, 2015). According to Crowe (2011) in Yusof et al., (2015) a study by the Sponsoring Organization Committee of the Treadway Commission (COSO) has found that 70% of fraud has a profile that combines pressure with arrogance or greed and 89% of cases of fraud involve a CEO.
Earning Management
Earnings management is a management decision-making process that paves the way for encouragement or management’s understanding of terms that might lead to fraudulent financial statements (Skousen et al., 2008). The concept of earnings management is very important and is related to research predicting the potential for fraudulent financial reporting. Earnings management is influenced by a conflict of interest between the principal and the agent as a manager which arises because both parties want to try to achieve / consider the level of welfare they want.

Framework

HYPOTHESIS
H1: Financial Stability affects the potential for fraudulent financial statements.
H2: External Pressure affects the potential for fraudulent financial statements.
H3: Financial Targets affect the potential for fraudulent financial statements.
H4: Nature of Industry affects the potential for fraudulent financial statements.
H5: Ineffective Monitoring affects the potential for fraudulent financial statements.
H6: Rationalization affects the potential for fraudulent financial statements.
H7: Competence has an effect on the potential for fraudulent financial statements.
H8: Arrogance affects the potential for fraudulent financial statements.

OPERATIONALIZATION OF VARIABLES
This study was conducted to analyse the relationship between the dependent variable (Potential for Financial Statement Fraud) and the Independent variable (Fraud Pentagon). In this study, there are nine variables to be studied consisting of one dependent variable and eight independent variables. The dependent variable includes the Fraudulent Financial Statement. Meanwhile, the independent variables include Financial Stability, External Pressure, Financial Target, Nature of Industry, Ineffective Monitoring, Rationalization, Competence, and Arrogance.

DEPENDENT VARIABLE
In conducting this research, the dependent variable used is the potential for financial statement fraud. In this study, the Fraudulent Financial Statement can be proxied by using the F-Score Model as determined by Dechow et al (2009). The F-score model is the sum of two variables, namely accrual quality and financial performance, which can be described in the following equation:

F-Score = Accrual Quality + Financial Performance

INDEPENDENT VARIABLE
The independent variables used in this study are as follows:

RESEARCH METODOLOGY
Research methods
This research is classified as a type of quantitative research. Quantitative research will explain phenomena and theory testing in the form of numbers. This study analyses the independent variable against the dependent. This study uses secondary data from the Indonesia Stock Exchange 2016-2019 and is accessed through the website (www.idx.co.id).
a. Pressure

1. Financial Stability

Total assets are a measure of wealth owned by a company. The greater the ratio of changes in total assets of a company, the higher the potential for fraudulent financial statements. Research conducted by Skousen et al. (2008) uses the ratio of changes in total assets (ACHANGE) to measure financial stability. The following formula is used:

\[
ACHANGE = \frac{(Total \ Asset_{t} - Total \ asset_{t-1})}{Total \ asset_{t-1}}
\]

2. External Pressure

According to Skousen et al. (2008), a source of external pressure is the company's ability, apart from meeting debt requirements, it also includes repaying debt. External pressure is proxied by the leverage ratio (LEV), namely the ratio of debt to assets. The formula is as follows:

\[
\text{Debt to Asset Ratio (LEV)} = \frac{Total \ Liabilities}{Total \ Assets}
\]

3. Financial Targets

Financial targets are the amount of profit that must be achieved by a company. One measure of the level of profit by comparing earnings with total assets to assess manager performance, determine bonuses, and increase in wages. Therefore, the financial target can be proxied by using Return on Assets (ROA). According to Skousen (2008) ROA is one of the proxies used to measure the profitability ratio. The ROA formula is:

\[
\text{ROA} = \frac{Net \ Profit}{Total \ Assets}
\]

b. Opportunity

1. Nature of Industry

The nature of the industry is an ideal condition for a company in an industry. The economic environment and industrial regulations require companies to be able to make subjective judgments in estimating uncollectible accounts and the amount of inventories that have been used. The emergence of a risk in the industry to make subjective estimates or assessments. Therefore, the nature of the industry can be proxied by using the ratio of changes in accounts receivable (Nugraheni and Triatmoko, 2016). The formula is as follows:

\[
\text{Receivable} = \frac{\text{Receivable (t)}}{\text{Sales (t)}} - \frac{\text{Receivables (t-1)}}{\text{Sales (t-1)}}
\]

2. Ineffective Monitoring

Ineffective supervision is a company condition in which there is no good internal control due to the domination of management by one or more people. An independent board of commissioners is needed to improve the effectiveness of supervision of all management practices. Ineffective Monitoring can be proxied by the ratio of the number of independent boards of commissioners (BDOUT). The formula is as follows:

\[
BDOUT = \frac{Total \ Independent \ Commissioner}{Total \ Board \ of \ Commissioner}
\]

c. Rationalization

Rationalization is a justification for fraud which tends to increase when there is a change in external auditors. The change of auditors in the company can be assessed as an attempt to remove the traces (fraud trail) that has been found by the previous auditors. Rationalization can be proxied by the turn of the external auditor (AUDCHANGE) which can be measured by dummy variables. A dummy variable where the number code 1 is used for companies that have had a change in public accounting firms during the 2016-2019 period and the number code 0 is for companies that have no change in public accounting firms during the study period.

d. Competence

Competence will affect a person's likelihood of committing fraud. Competence can be proxied by a change in the Board of Directors (DCHANGE). According to Wolfe and Hermanson (2004), the change of directors creates a stressful period that will open up opportunities for fraud. Changes in the Board of Directors can be measured using a dummy where the number code 1 is used for companies with a change of directors during the 2016-2019 period and the number code 0 for companies that have no change of directors during the study period.

e. Arrogance

Arrogance is a superiority behaviour that exists in someone who believes that internal control is not applied to him (Crowe Howarth, 2011). Arrogance can be proxied by the Frequent number of CEO's picture, which is a depiction of the number of photos of a CEO displayed in the company's annual report for the 2016-2019 period.

Object of research

The population of this research is mining companies listed on the Indonesia Stock Exchange 2016-2019. The population in this study were 44 companies. The sample chosen must be representative. The samples in this study were 17 companies. The sample selection carried out in this study used a purposive sampling method where the company to be selected for research must have specific criteria as follows:

2. Companies that publish annual financial reports on the company's website or the Indonesia Stock Exchange website during 2016-2019 in both rupiah and dollar currencies.
3. Companies that present complete data related to research variables during the 2016-2019 period.

Types, data sources, and data collection methods

Types and Sources of Data

The type of data used in this study is secondary data. Secondary data is data obtained indirectly from the source or through intermediaries (obtained and published by other parties). The data used in this study is the data from the Annual Report of Mining Companies listed on the Indonesia Stock Exchange 2016-2019. The data was obtained from www.idx.co.id, the company's official website, previous research results and other relevant literature.

Method of collecting data

The data collection method used was the documentation method and literature study method. The documentation method is by collecting data from the annual reports of companies listed on the Indonesia Stock Exchange 2016-2019. Furthermore, using the literature study method which includes literature consisting of books, journals, and other sources related to the variables you want to research for reference.

RESULTS AND DISCUSSION

Table-1: Descriptive Statistics Test Results

<table>
<thead>
<tr>
<th>Date: 07/20/20</th>
<th>Time: 03:08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample: 2016 2019</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>F_SCORES</th>
<th>ACHANGE</th>
<th>LEV</th>
<th>ROA</th>
<th>RECEIVABLE</th>
<th>BDOUT</th>
<th>AUDCHANGE</th>
<th>DCHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.506454</td>
<td>0.94929</td>
<td>0.518104</td>
<td>0.060410</td>
<td>0.040916</td>
<td>0.045427</td>
<td>0.102941</td>
</tr>
<tr>
<td>Median</td>
<td>0.657420</td>
<td>0.679600</td>
<td>0.440010</td>
<td>0.060041</td>
<td>0.065930</td>
<td>0.400000</td>
<td>0.000000</td>
</tr>
<tr>
<td>Maximum</td>
<td>1.845141</td>
<td>1.383000</td>
<td>0.817967</td>
<td>0.455579</td>
<td>0.624704</td>
<td>0.166667</td>
<td>0.000000</td>
</tr>
<tr>
<td>Minimum</td>
<td>-1.680271</td>
<td>-0.740000</td>
<td>0.106081</td>
<td>-0.426739</td>
<td>-0.951236</td>
<td>0.200000</td>
<td>0.000000</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0.579422</td>
<td>0.231648</td>
<td>0.292841</td>
<td>0.136544</td>
<td>0.182686</td>
<td>0.086113</td>
<td>0.036114</td>
</tr>
<tr>
<td>Skewness</td>
<td>-1.157549</td>
<td>2.167173</td>
<td>0.560876</td>
<td>-0.629137</td>
<td>-1.593164</td>
<td>0.923640</td>
<td>2.613583</td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>53.11201</td>
<td>392.7348</td>
<td>107.1278</td>
<td>49.13068</td>
<td>318.1197</td>
<td>22.25365</td>
<td>143.4681</td>
</tr>
<tr>
<td>Probability</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.000000</td>
</tr>
<tr>
<td>Sum</td>
<td>42.59886</td>
<td>6.412868</td>
<td>35.23107</td>
<td>4.352677</td>
<td>-1.779066</td>
<td>7.256957</td>
<td>7.000000</td>
</tr>
<tr>
<td>Sum Sq.</td>
<td>22.49388</td>
<td>3.952787</td>
<td>7.545652</td>
<td>1.249157</td>
<td>2.275397</td>
<td>0.490827</td>
<td>6.278412</td>
</tr>
<tr>
<td>Observations</td>
<td>68</td>
<td>68</td>
<td>68</td>
<td>68</td>
<td>68</td>
<td>68</td>
<td>68</td>
</tr>
</tbody>
</table>

From this table 1 shows that this study has 68 observational data and it can be analysed that:

a. Potential for Financial Statement Fraud (F-score)

The average value of the potential variable financial report fraud in mining companies listed on the Indonesia Stock Exchange (IDX) 2016-2019 using an F-score is 0.626454. The median value is 0.657420 with a standard deviation value of 0.579422. The highest company value was 1.840514 while the lowest value was -1.850271.

d. Financial Target (ROA)

The average value of the financial target variables in mining companies listed on the Indonesia Stock Exchange (IDX) in 2016-2019 using the ROA calculation is 0.064010. The median value is 0.050541 with a standard deviation value of 0.136544. The highest company value was 0.455579 while the lowest value was -0.426739.

e. Nature of Industry (RECEIVABLE)

The average value of the Nature of Industry variable in mining companies listed on the Indonesia Stock Exchange (IDX) in 2016-2019 using a receivable calculation is 0.518104. The median value is 0.440010 with a standard deviation value of 0.292841. The highest company value was 0.003144 while the lowest value was -0.915316.

F. Ineffective Monitoring (BDOUT)

The average value of the Ineffective monitoring variable in mining companies listed on the Indonesia Stock Exchange (IDX) in 2016-2019 using the BDOUT calculation is 0.405427. The median value
is 0.400000 with a standard deviation value of 0.086113. The highest company value is 0.666667 while the lowest value is 0.200000.

g. Rationalization (AUDCHANGE)
The average value of the rationalization variable in mining companies listed on the Indonesia Stock Exchange (IDX) in 2016-2019 using a dummy calculation is 0.102941. The median value is 0.000000 with a standard deviation value of 0.306141.

h. Competence (DCHANGE)
The average value of the competence variable in mining companies listed on the Indonesia Stock Exchange (IDX) in 2016-2019 using a dummy calculation is 0.161765. The median value is 0.000000 with a standard deviation value of 0.370973.

i. Arrogance (CEOPICT)
The average value of the arrogance variable in mining companies listed on the Indonesia Stock Exchange (IDX) in 2016-2019 using a dummy calculation is 7.397059. The median value is 5,500,000 with a standard deviation value of 5.518327.

MODEL ESTIMATED TEST RESULTS
Chow test

<table>
<thead>
<tr>
<th>Effects Test</th>
<th>Statistic</th>
<th>d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section F</td>
<td>1.901783</td>
<td>(16,43)</td>
<td>0.0477</td>
</tr>
<tr>
<td>Cross-section Chi-square</td>
<td>36.387546</td>
<td>16</td>
<td>0.0026</td>
</tr>
</tbody>
</table>

Source: Output Eviews 9 and Refined Excel Output

The results of this Chow test can be concluded that Ho is rejected and Ha is accepted because the results of the Prob Cross-section F are smaller than alpha (0.0477 <0.05), so the model used in this study is the Fixed Effect Model.

Haussman Test

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq</th>
<th>Statistic</th>
<th>Chi-Sq d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>16.195099</td>
<td>8</td>
<td>0.0397</td>
<td></td>
</tr>
</tbody>
</table>

Source: Output Eviews 9 and Refined Excel Output

Based on table 4.17 it is known that the probability value of random cross-section is 0.0397 (less than 0.05), so Ho is rejected and Ha is accepted so that the appropriate model used in this study is the Fixed Effect Model.
CLASSIC ASSUMPTIONS TEST RESULTS

Data Normality Test

Based on the residual test histogram it can be seen that the probability value is 0.325522 where the probability value is greater than 0.05 so that 0.325522 > 0.05, then the data is normally distributed.

Meanwhile, if viewed from the Jarque-Bera statistical test, the Jarque-Bera value can be obtained of 2.244648. Based on the Chi-Square table with df = k-1 (9-1 = 8) it can be seen that it is 15.50731 with a degree of freedom of 0.05 so that the Jarque-Bera value is smaller than the Chi-Square table, namely 2.244648 < 15.50731, then the research data is normally distributed.

Multicollinearity Test

Based on the table above, it can be seen that the centered VIF value obtained for each variable is lower than 10. This is in accordance with the test criteria that the results of the multicollinearity test have no correlation coefficient between variables which is more than 10, so it can be concluded that the data does not exist. multicollinearity problem.

Heteroscedasticity Test Results
Based on the table above, the prob chi square value obtained is 0.4041. Because the value is greater than 0.05, it is concluded that there is no heteroscedasticity.

**Autocorrelation Test Results**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.45713</td>
<td>0.21097</td>
<td>2.08776</td>
<td>0.0411</td>
</tr>
<tr>
<td>ACHANG</td>
<td>0.18129</td>
<td>0.16137</td>
<td>1.122331</td>
<td>0.2663</td>
</tr>
<tr>
<td>LEV</td>
<td>0.05028</td>
<td>0.134145</td>
<td>0.395760</td>
<td>0.6937</td>
</tr>
<tr>
<td>ROA</td>
<td>0.20517</td>
<td>0.317740</td>
<td>0.659397</td>
<td>0.5122</td>
</tr>
<tr>
<td>RECEIVABLE</td>
<td>0.24412</td>
<td>0.192991</td>
<td>0.125212</td>
<td>0.9069</td>
</tr>
<tr>
<td>BDOUT</td>
<td>-0.17424</td>
<td>0.445358</td>
<td>-0.395448</td>
<td>0.6017</td>
</tr>
<tr>
<td>AUDCHANG</td>
<td>-0.21323</td>
<td>0.114030</td>
<td>-1.053231</td>
<td>0.2859</td>
</tr>
<tr>
<td>DCHANGE</td>
<td>0.551033</td>
<td>0.096752</td>
<td>0.527456</td>
<td>0.5999</td>
</tr>
<tr>
<td>CEOPCT</td>
<td>-0.006562</td>
<td>0.06942</td>
<td>-0.106456</td>
<td>0.8298</td>
</tr>
</tbody>
</table>

R-squared 0.146862
Adjusted R-squared 0.049368
S.E. of regression 0.276849
Sum squared resid 4.329177
Log likelihood 2.935336
F-statistic 1.206198
Prob(F-statistic) 0.305579

Based on the table above, it is concluded that the data does not have autocorrelation, this can be seen from the probability value Obs * R-squared> 0.05, namely 0.4731> 0.05.
HYPOTHESIS TEST RESULTS

Correlation Coefficient Analysis Test

Based on the Fixed Effect Model in the table above, the coefficient of determination (R-square) between ACHANGE, LEV, ROA, RECEIVABLE, BDOUT, AUDCHANGE, DCHANGE, CEOPICT in detecting potential fraud in financial statements is 0.782196, so the R value is √0.611832 = 0.782196. 0.782196 indicates that there is a strong relationship between the independent variable and the dependent variable.

Multiple Linear Regression Equation Test

Based on the table above using the Fixed effect model output, the multiple linear regression equation is as follows:

\[ F \text{-score} = 0.983916 + 0.297251 \text{ACHANGE} - 1.420248 \text{LEV} + 0.443360 \text{ROA} - 0.055477 \text{RECEIVABLE} + 0.542643 \text{BDOUT} + 0.062771 \text{AUDCHANGE} - 0.180461 \text{DCHANGE} + 0.016661 \text{CEOPICT} + e \]

Regression coefficient partially test (t - test)

Based on the table above with df = (nk-1) = (68-8-1) = 59 and degrees of freedom of 0.05, the t-table value is 1.67109.

From the results of the above research, the Financial Stability (ACHANGE) has t count < t table 0.883121 <1.67109 probability > 0.05, namely 0.3821 > 0.05, so Ho is accepted, this means that partially there is no significant effect on Financial Stability. Financial statements.

From the results of the above research, the External Pressure (LEV) variable has t count > t table 3.023081 > 1.67109 probability <0.05, namely 0.0042 <0.05 then Ha is accepted, this means that partially, External Pressure has a significant effect on the Potential of Report Fraud. Finance.
From the results of the above research, the Financial Target (ROA) variable has $t_{\text{count}} < t_{\text{table}}$, 0.547791 < 1.67109 probability > 0.05, namely 0.5867 > 0.05, so $H_0$ is accepted, this states that it means that partially the Financial Target has no effect. significant to the Potential of Financial Statement Fraud.

From the results of the above research, the Nature of Industry (RECEIVABLE) variable has $t_{\text{count}} < t_{\text{table}}$, 0.165701 < 1.67109 probability > 0.05, namely 0.8692 > 0.05, so $H_0$ is accepted, this means that partially Nature of Industry does not there is a significant influence on the Potential for Financial Statement Fraud.

From the results of the above research, the Ineffective Monitoring (BDOUT) variable has $t_{\text{count}} < t_{\text{table}}$, 0.481690 < 1.67109 probability > 0.05, namely 0.6325 > 0.05, so $H_0$ is accepted, this means that partially Ineffective Monitoring has no effect. significant to the Potential of Financial Statement Fraud.

From the results of the above research, the Variable Rationalization (AUDCHANGE) has $t_{\text{count}} < t_{\text{table}}$, 0.282003 < 1.67109 probability > 0.05, namely 0.7793 > 0.05, so $H_0$ is accepted, this means that partially Rationalization has no significant effect on Potential for Financial Statement Fraud.

From the results of the above research, the Arrogance variable (CEOPICT) has $t_{\text{count}} < t_{\text{table}}$, 0.746572 < 1.67109 probability > 0.05, namely 0.4594 > 0.05, so $H_0$ is accepted, this means that partially Arrogance has no significant effect on Potential for Financial Statement Fraud.

Regression Coefficient Test (F-Test)

Based on table 4.20, attachment 19, the output results of the Fixed effect model above show that the significance value is 0.001473 < 0.05 (5%), while the $F$ table value at $\alpha = 0.05$ and $df = 59 - 8 - 1$ is 2.10. So $F_{\text{count}} = 2.824030 > 2.10$ so that it can be concluded that together there is a significant influence between the variables of Financial Stability, External Pressure, Financial Target, Nature of Industry, Ineffective Monitoring, Competence, and Arrogance in Detecting Potential Fraud in Financial Statements.

Coefficient of determination test (R$^2$)
Based on the above table with output Fixed effect model is known that the value of R-squared of 0.611832, which means together variable ACHANGE, LEV, ROA, receivables, BDOUT, AUDCHANGE, DCHANGE, CEPICIT influential in detecting potential fraud financial statements 61.18%, while the rest amounted to 38.82% (100% - 61.18%) influenced by other variables that were not researched or not included in this study.

**DISCUSSION**

**The Effect of Financial Stability on the Potential for Financial Statement Fraud**

The first hypothesis (H₁) in this study is rejected, because based on the results of the partial regression test using the Fixed effect model it shows that the regression equation research results show that the regression coefficient for the ACHANGE variable is positive at 0.297251, the results of the t test that have been done obtained t_count of 0.883121 with a probability of 0.3821 > 0.05, so it can be concluded that H₀ is accepted and Ha is rejected, which means that Financial Stability has no effect on the potential for financial statement fraud.

**The Effect of External Pressure on the Potential of Financial Statement Fraud**

The second hypothesis (H₂) in this study is accepted, because based on the results of the partial regression test using the Fixed effect model it shows that from the results of the regression equation research above, it can be seen that the regression coefficient for the LEV variable is negative at -1.420248, the t test results that have been carried out obtained t_count of 3.023081 with a probability of 0.0042 <0.05, so it can be concluded that H₀ is rejected and Ha is accepted, which means that External Pressure has an effect on the potential for financial statement fraud.

**The Influence of Financial Targets on the Potential of Financial Statement Fraud**

The third hypothesis (H₃) in this study is rejected, because based on the results of the partial regression test using the Fixed effect model it shows that from the results of the regression equation research above, it can be seen that the regression coefficient for the ROA variable is positive at 0.443360, the results of the t test that have been done obtained t_count of 0.547791 with a probability of 0.5867 > 0.05, so it can be concluded that H₀ is accepted and Ha is rejected, which means that the Financial Target has no effect on the potential for financial statement fraud.

**The Effect of Nature of Industry on the Potential of Financial Statement Fraud**

The fourth hypothesis (H₄) in this study is rejected, because based on the results of the partial regression test using the Fixed effect model it shows that from the results of the regression equation research above, it can be seen that the regression coefficient for the RECEIVABLE variable is negative at -0.055477, the results of the t test that have been carried out obtained t_count of -0.165701 with a probability of 0.8692 > 0.05, so it can be concluded that H₀ is accepted and Ha is rejected, which means that Nature of Industry has no effect on the potential for financial statement fraud.

**The Effect of Ineffective Monitoring on the Potential of Financial Statement Fraud**

The fifth hypothesis (H₅) in this study is rejected, because based on the results of the partial regression test using the Fixed effect model it shows that the regression equation research results above show that the regression coefficient for the BDOUT variable is positive at 0.542643, the results of the t test that have been carried out are obtained, t_arithmetic amounted to 0.481690 with probability equal to 0.6325 > 0.05, so it can be concluded that H₀ is accepted and Ha is rejected, which means that ineffective monitoring does not affect potential fraudulent financial statements.

**The Effect of Rationalization on the Potential of Financial Statement Fraud**

The sixth hypothesis (H₆) in this study is rejected, because based on the results of the partial regression test using the Fixed effect model it shows that from the results of the regression equation research above, it can be seen that the regression coefficient for the AUDCHANGE variable is positive at 0.062771, the results of the t test that have been carried out are obtained, t_arithmetic amounted to 0.282003 with probability equal to 0.7793 > 0.05, so it can be concluded that H₀ is accepted and Ha is rejected, which means that rationalization does not affect potential fraudulent financial statements.

**The Effect of Competence on the Potential of Financial Statement Fraud**

The seventh hypothesis (H₇) in this study is rejected, because based on the results of the partial regression test using the Fixed effect model it shows that from the results of the regression equation research above, it can be seen that the regression coefficient for the DCHANGE variable is negative at -0.180461, the results of the t test that have been carried out obtained t_count of -0.906515 with a probability of 0.3697 > 0.05, so it can be concluded that H₀ is accepted and Ha is rejected, which means that Competence has no effect on the potential for fraudulent financial statements.

**The Effect of Arrogance on the Potential of Financial Statement Fraud**

The eighth hypothesis (H₈) in this study is rejected, because based on the results of the partial regression test using the Fixed effect model it shows that the regression equation research results above show...
that the regression coefficient for the CEOPICT variable is positive at 0.016661, the results of the t test that have been carried out obtained $t_{\text{count}}$ of 0.746572 with a probability of 0.4594 > 0.05, so it can be concluded that $H_0$ is accepted and $H_a$ is rejected, which means that Arrogance has no effect on the potential for financial statement fraud. The results of this study are in line with research conducted by Damayani et al., (2019); Nanda et al., (2019); Rusmana and Tanjung (2019) which state that Arrogance has no effect on the Potential for Financial Statement Fraud.

CONCLUSION

Based on the results of research and discussion with regression results using 3 models of the Common Effect Model (CEM), Fixed Effect Model (FEM) and Random Effect Model (REM) aims to strengthen the conclusions of paired testing and after the Chow Test and Hausman Test, the model is obtained. The most appropriate is the Fixed Effect Model used for Pentagon Fraud Analysis in Detecting the Potential of Financial Report Fraud (Empirical Study of Mining Companies listed on the IDX in the 2016-2019 period).

Based on the results of the research and discussion that has been done, it can be concluded that External Pressure has an effect on the potential for fraudulent financial statements. Meanwhile, the variables of Financial Stability, Financial Target, Nature of Industry, Ineffective Monitoring, Rationalization, Competence, and Arrogance have no effect on the potential for fraudulent financial statements of mining companies listed on the Indonesia Stock Exchange in 2016-2019.

SUGGESTION

Based on the conclusions and limitations of the research above, there are several suggestions that the authors need to convey as follows:

1. Theoretical Aspects
   a. For academics
   The academy is expected to expand the references used in order to deepen understanding in accounting, especially auditing.

b. For further researchers
   Further researchers are expected to be able to expand the sample of companies not only with mining companies listed on the Indonesia Stock Exchange (IDX) but can try different company sector objects so that they can be used as comparisons between sectors with different results and can add research periods and be able to explore more. deeply about other factors that affect the dependent variable of financial statement fraud because the known value of $R^2$ of 61.18 %, which means there are 38.82% there are elements of other variables that Dapa t affect the dependent variables such as personal financial need, qual ity of the external auditors, the audit opinion, ceo duality and others.

2. Practitioner Aspects
   a. For the Company
   The company is expected to improve the quality of performance on the picture that has been given from the results of research on the importance of the factors causing financial statement fraud and make it a consideration in company activities to increase the reliability of information from the presentation of financial reports to the public so that information is relevant, reliable and trustworthy and also useful. for the long term for the survival of the company and public trust.

b. For Investors and Creditors
   Investors are expected to be taken into consideration before making a decision to invest and provide loans to companies and should avoid investing or providing loans to companies that have poor credibility by finding out in detail the track of records of the company concerned.

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