

## THE EFFECT OF FRAUD HEXAGON ON FRAUDULENT FINANCIAL STATEMENTS: EMPIRICAL STUDY OF NON-CYCLICALS COMPANIES IN INDONESIA

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### Abstract

This study aims to analyze the factors of hexagon fraud in detecting financial statement fraud in non-cyclical sector companies listed on the Indonesia Stock Exchange (IDX) for the 2020-2021. Based on the purposive sampling method, the number of companies sampled in this study was 33 research criteria of non-cyclical companies with a total of 66 observations. The results of this study found that the element of pressure proxied by government projects had a significant effect on fraudulent financial statements. Meanwhile, financial targets, financial stability, changes in directors, ineffective monitoring, change in auditors, frequent number of CEO's pictures, political connections, state-owned enterprises, and audit opinions have no significant effect on fraudulent financial reports in non-cyclicals sector companies listed on the IDX 2020-2021.

Keywords: Fraudulent Financial Statement, Fraud Hexagon, Non-Cyclicals Companies

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### 1. Introduction

Financial statements are part of the means of communication between managers and stakeholders (stakeholders) to provide an overview of company performance in an accounting period. This financial report is prepared to provide company financial information including financial performance, financial position, and company cash flow (Mawarni and Husaini, 2016). However, in reality, many business actors intentionally commit fraud or fraud by manipulate financial statement information so that the company has good performance and looks healthy (Mawarni and Husaini, 2016). Fraud in the company's financial statements has previously been described in Section 316 of the Auditing Standards (PSA Number 70) which reveals that fraud in the company's financial statements can be in the form of misstatements or omissions of a certain component in the financial statements intentionally to deceive users. financial reports, misrepresentation or deletion from financial reports such as events, transactions, or significant information, as well as intentional mis implementation of accounting principles related to amounts, presentation methods, disclosures and classifications (IAI, 2011).

Cases of fraudulent financial reporting of companies that go public are one of the factors in the poor economy of a country. In Indonesia, it is known that several companies have committed corrupt practices, fraudulent financial reporting, including the cases of PT Kimia Farma Tbk, PT Kereta Api Indonesia Tbk, PT Waskita Karya Tbk. Cases of

manipulation of financial reports abroad have also been recorded by Xerox (2000), Enron (2001) and Worldcom (2002) which caused the United States public to doubt the integrity and credibility of business actors. Recently there was a case of financial reporting fraud committed by PT Timah (Persero) who was charged with manipulating the financial statements of the first half of 2015 which stated that while there was a positive increase in performance, there was a loss of IDR 59 billion (Okezone Finance, 2016). Another case of fraudulent financial reporting was carried out by Toshiba Corporation, which in 2015 was proven to generate a profit bubble equivalent to 1.22 billion USD in five years.

## **2. Theoretical Background**

### **2.1 Agency Theory (Grand Theory)**

Agency relationships occur when one or more people (principals) hire different people (agents) to perform a service and then give the agent the power to make decisions. As a party that is given responsibility, management (agent) is obliged to fulfill its obligations to shareholders (principal) (Jensen and Meckling, 1967). However, between shareholders (principal) and management (agent) conflicts often arise as a result of differences in interests between the two parties which can be referred to as agency conflicts (agency theory).

### **2.2 Fraud**

The Association of Certified Fraud Examiners (ACFE) states that fraud is an act of deception or intentional mistakes made in order to gain benefits for individuals and groups that either directly or indirectly cause other parties to suffer losses. Based on Standards Audit Statement No. 99 explains if Fraud is an intentional act that can trigger component misstatements in the company's financial statements (Susanti, 2014). Misstatement or omission of information in the preparation of an organization's financial statements is defined as fraudulent financial reporting by the ACFE as an act taken by a person with intent to cause such omission. From the understanding above, it can be concluded that fraud is an illegal act committed to deceive other people for their own benefit.

### **2.3 Fraud Hexagon Theory**

Fraud theory was first discovered in 1953 by Donal R. Cressey called the fraud triangle. Cressey stated that people who commit fraud are caused by financial problems (pressure) by taking advantage of existing opportunities (opportunity). Cressey also said that the perpetrators of fraud actually knew that their actions were wrong and unlawful, but the perpetrators changed their perspective and mindset for various reasons and stated that their actions were reasonable and legal (rationalization). Wolfe and Hermanson in 2004 developed a new theory, namely the fraud diamond, in which the theory added a new variable, namely capability, meaning that a person would not be able to commit fraud if that person did not have the ability. Fraud pentagon theory is a theory developed by Crowe Horwarth in 2011, where the theory adds the arrogance variable, namely someone who has an attitude of arrogance and authoritarianism that causes him to feel that supervision and regulation.

### **2.4 Financial Targets**

Pressure can be measured using financial targets that are usually reflected through the acquisition of a profit rate company that can be calculated through value ROA (Return On Assets) (Skousen et al., 2009). Putri and Ira Lestari (2021) and Kusumosari (2020) proves that financial targets have a positive effect on detection of fraudulent financial

statements. Meanwhile, according to research Suprayogi and Purnamasari (2021), financial targets negative effect on fraudulence financial statements.

H1: Financial target has an effect on fraudulent financial statements

## 2.5 Financial Stability

Financial stability is a condition for check the company's financial condition in a stable state or not. Skousen et al. (2009) argue that this can be measured by looking at changes in total assets company from year to year and states when a manager feels The company's financial stability is under pressure various situations, it can trigger it do various ways to beautify appearance of the company as fraudulent financial statements. Research results from Kusumosari (2020) states that financial stability has a positive effect against fraudulent financial reporting.

H2: Financial stability has an effect on potential for fraudulent in the financial statements

## 2.6 Capabilities

The capabilities described here are the ability of perpetrators of fraud to commit fraud without the knowledge of the parties company controller. According to Wolfe & Hermanson (2004) states that no maybe personal who do not have individual abilities or capabilities can carry out acts of fraud. It's not always a change of directors drive the company's performance to be better. Ruankaew (2016) and Saputra (2016) prove that the change of directors' positive effect on reporting fraudulent finance. According to Wolfe and Hermanson (2004) position someone in the company provides capacity for act fraudulently.

H3: Change of directors has an effect on fraudulent financial statements

## 2.7 Ineffective Monitoring

Under very close supervision of the company relation to the board of commissioners. Siddiq et al. (2017) explained that acts of fraud within the company can be prevented by the greater the ratio of the board of commissioners. Matter this is supported by research results research from Santoso (2019) proves that the ineffectiveness of supervision is not positive effect on fraud financial statements. While the research results from Kusumosari (2020) shows that the ineffectiveness of oversight effect positive towards fraud reports finance. While in research. Rengganis et al., (2019) proves the ineffectiveness of supervision affects fraudulent financial reporting negatively.

H4: Ineffective monitoring effect against fraudulent financial statements

## 2.8 Change In Auditors

Auditor's responsibility in supervision financial statements are very crucial, where opinion auditors can be used as a basis. evaluation of users of financial statements. This matter supported by research results from Santoso (2019) shows that Change in Auditors have a positive effect on financial statement fraud. Septriyani and Handayani (2018) proves that financial statement fraud caused due to a change of auditors. There is change of auditors is considered capable hide traces of the cheating that has been discovered by previous auditors. While the results of research from Sagala and Siagian (2021) shows that Change in Auditor has a negative effect on financial statement fraud.

H5: Change in auditor has an effect on fraudulent financial statements

### 2.9 Frequent number of CEO's picture

The number of CEO photos attached to the company's annual report can show arrogance and superiority to the CEO himself (Tessa and Harto, 2016). The arrogant attitude of a CEO can make himself feel that everything forms of supervision and regulation of the company will not affect it because of his position in the company very high and important. So there is the likelihood that the CEO will do anything to maintain his position and status within the company including doing fraudulent financial statements (Howarth, 2011). According to research results from Wijayani and Ratmono (2020), and Syifani (2021) it is said that the frequent number of CEO's pictures have a positive effect on possibility of financial fraud reporting.

H6: frequent number of CEO's pictures positive effect on probability occurrence of fraudulent financial reports.

### 2.10 Government Project

According to Vousinas (2019), collusion refers to a deceptive or compact agreement between two or more people, for one party use their action for some unsavory purposes, such as to deceive third party from its rights. Fraud hexagons model should be used as development for the pentagon fraud model in order to find out more about the indications of its occurrence fraud, in which collusion plays a role important in fraudulent financial reporting. Their results of research conducted by Sari & Nugroho (2020) states that collusion positive effect on fraudulent financial reporting. Based on the explanation from this, the hypothesis is concluded:

H7: Cooperation with government projects positive effect on fraudulent financial reports.

### 2.11 Political Connections

Political connections are likely to give profit for the company. company that have political connections will gain assistance from the government in times of crisis economics and other issues (Butje & Tjondro, 2014). Research results that conducted by Kusumosari (2020) state that a political connection effect on fraud reports finance. Sari & Nugroho (2020) states that there is work or not the company and the government effect on fraud reports finance. So that the eighth hypothesis is:

H8: Political connections have an effect on fraudulent financial statements.

### 2.12 State-Owned Enterprises

State-owned enterprises are state-owned company engaged in various sectors of the Indonesian economy with the aim of improving the welfare of the Indonesian people. Management as an agent in charge of every order from the principal is included in thing looking for a lot of profit for company. This is what can push management commits fraud to meet those expectations and in this government can help to cover any errors and fraudulent acts made by the management. Study previously regarding this variable is carried out by Kusumosari (2020) states that state-owned enterprises have a positive effect significantly to report fraud finance.

H9: state-owned enterprises are influential positive about the probability of occurrence fraudulent financial reporting.

### 2.13 Audit Opinion

Rationalization is a form appreciation given by the company principal due to increase in performance (Sihombing & Rahardjo, 2014). Measurement of rationalization can use a variety of indicators. According to the State of Indonesia's Auditing Standards (SAS) No.99 concerning Considerations of Fraud in Auditing Financial Statements, rationalization of the company can be measured with the audit opinion cycle. One indicator used by several studies previously including Skousen, C. J. & Wright (2009), Seipriyani & Handayani (2018), Sihombing & Rahardjo (2014) as well as Agusputri & Sofei (2019). Results (Diany & Ratmono, 2014) state that audit opinion has a positive effect on fraud in financial statements.

H10: Audit Opinion has a positive effect against the possibility of fraud in financial reporting.

### 3. Methods

#### 3.1 Population and Sample

The objects in this study are sector companies that have been registered and issued audited financial statements for the 2020-2021 research period on the Indonesia Stock Exchange (IDX). The data used is sourced from the IDX website and also the company's website. The population in this study are financial sector companies listed on the IDX during 2020-2021. Non-Cyclicals companies that meet all the specific criteria to be able to become research samples are as many as 33 companies with a 2-year research year. So that the amount of data to be used in this study is 66 data to be observed.

#### 3.2 Definition and Measurement of Variable

##### 3.2.1 Fraudulent Financial Statement

The dependent variable in this study is fraudulent financial statements. According to (Ak et al., 2013) the f-score is a method that is very accurate in assessing the risk of fraudulent financial statements because it will obtain the highest level of truth. Calculation of the value of the f-score is done by adding up the accrual quality calculated by accrual RSST and financial performance.

$$F - \text{Score} = \text{Accrual Quality} + \text{Financial Performance}$$

Accrual quality is calculated using RSST Accruals. RSST is an abbreviation of the name of the researcher who put forward the formula of these, namely Richardson, Sloan, Soliman, and Tuna (Richardson et al., 2005). Formula for the calculation is as follows:

$$\text{RSST accrual} = \frac{(\Delta WC + \Delta NCO + \Delta FIN)}{\text{Average Total Assets}}$$

Financial performance can be known through changes in receivables, accounts cash sales, inventory accounts, and earnings before the formulated tax and interest through the following equation:

$$\text{Financial Performance} = \text{change in receivable} + \text{change in inventories} + \text{change in cash sales} + \text{change in earnings}$$

### 3.2.2 Financial Target

Skousen et al. (2009) stated that Return on assets (ROA) is frequent used in assessing the performance of managers and how to determine bonuses, salary increase, and others. The higher the ROA determined by the company, then the higher the level of management in manipulating earnings in reports corporate finance which is one form of fraud so it has positive relationship with fraudulent financial reporting. The formula for measuring Return on assets (ROA), namely:

$$ROA = \frac{Net\ Profit}{Total\ Asset}$$

### 3.2.3 Financial Stability

Financial stability describes the financial condition of a company that may be affected by economic, industry or operating conditions of the entity. This puts pressure on management to show up the condition of the company in a stable position so that the value of the company is maintained (Skousen et al., 2009). The company's total assets can reflect the company financial stability. Proxy measurement of financial stability namely  $ACHANGE_i$ , with the following formula:

$$ACHANGE = \frac{Total\ asset\ t - Total\ asset\ t-1}{Total\ asset\ t-1}$$

### 3.2.4 Change in Director

Change of directors can cause stress period and have an impact increase the opportunity to perform fraudulent acts (Wolfe & Heirmanson, 2004). In this study, change director is measured using dummy variable measurement. If there is change of directors is given a value of "1" and otherwise if there is no change directors is given a value of "0".

### 3.2.5 Ineffective Monitoring

The tendency to fraudulent financial statements can be associated with a high sense of superiority and CEO arrogance. With this attitude, the CEO believes that he is the most righteous in the company and that all rules do not apply to him (Teissa and Harto, 2016). This measurement proxy is denoted by the  $BDOU_iT$  symbol, the formula is as follows:

$$BDOU = \frac{Jumlah\ Komisaris\ Independen}{Jumlah\ dewan\ komisaris}$$

### 3.2.6 Change In Auditor

Change in auditor (change of auditor) in a company rate as the act of destroying evidence of fraud that the auditor has discovered previously. In this study, Change in Auditors are measured using dummy variable measurement. If there is change of auditors is given a value of "1" and otherwise if there is no change auditors are given a value of "0".

### 3.2.7 Frequent Number of CEO's Picture

The frequency number of CEO's pictures or the total frequency of CEO photos in the company's annual report shows the level of CEO arrogance. According to Crowe (2011), a CEO will potentially do anything to maintain his current position. Measurement of the level of arrogance based on the frequency of CEO photos is:

$$\text{CEOPIC} = \Sigma \text{ foto CEO yang ditampilkan dalam laporan tahunan}$$

### 3.2.8 Government Project

In this study, if the company has a tender, agreements, or contracts with the government will be given code 1, otherwise if there is no tender, contract or agreement with the government then code 0 will be given. Method this measurement has also been used by Amran & Haniffa (2011) and Sari, et al (2020).

### 3.2.9 Political Connection

Political connection or political connections means that a company establishes political relations with other parties. A company with many connections politics is considered to facilitate and launch company activities. For political connection is measured by using dummy variables. If the president commissioner and/or Independent commissioners have affiliations politics is given a value of "1" and vice versa if president commissioner and/or commissioner Independent has no political affiliation rated "0". In this study there is some of the criteria used for determining have these political connections refers to research conducted by Matangin et al. (2018) adopted from Fan et al. (2007) as follows:

- President commissioner and/or commissioner independent concurrently as party-affiliated politicians political.
- President commissioner and/or commissioner independent concurrently as Government officials.
- President commissioner and/or commissioner independent concurrently as military official.
- President commissioner and/or commissioner independent is a former official government or former official's military.

### 3.2.10 State-owned Enterprises

Dummy variables, value 1 if company is company owned government, as well as a value of 0 if the company is not a owned company government (Gaio & Pinto, 2018; Hirdjiono, 2019; Wui et al., 2014)

### 3.2.11 Audit Opinion

Audit opinion is a statement of opinion given by the auditor regarding the fairness of the audited financial statements. Market will give a positive signal to the company that gets the opinion unqualified audit (WTP). According to Sheing and Whang (2006) in Fitriadi (2011), investors will react by buying the company's shares if the company's financial statements are presented separately fair and obtain an unqualified opinion. The audit opinion variables is measured using a dummy

variabeli, wheirei if thei company obtains Uinqualifieid Opinion (WTP) thei auditor will bei givein a scalei of 1, otheirwisei it will bei givein a scalei of 0.

### 3.3 Data analysis method

#### 3.3.1 Descriptive Data Analysis

Deiscriptivei statistical analysis provideis an oveirvieiw of a data seiein from statistics suich as thei aveiragei valuiei (meian), standard deiviation, variancei, maximum, minimum, suim, rangei, kuirtois, and skeiwneiss (distribution skeiweidneiss) (Ghozali, 2016). Thei puiurposei of thei deiscriptivei statistical analysis is to providei an oveirvieiw of thei distribution of data in reiseiarch and a deiscription of thei manageirial owneirship struictuirei, profitabiliy, liquiidity, leiveiragei, growth opportunitieis and accounting conseirvatism.

#### 3.3.2 Panel Data Regression Estimation

This study useis paneil data reigreission analysis with thei heilp of statistical softwarei Eivieis veirsion 13.0. This analysis is useid in reiseiarch to deiteirmei thei most appropriatei reiseiarch data modeil beitweiein thei common eiffeicts modeil, fixeid eiffeicts modeil, or random eiffeicts modeil to eixplain thei probleims in this study. Thei modeil is deiscribeid as follows:

$$FSCORE = \beta_0 + \beta_1ROA + \beta_2ACHANGE + \beta_3DCHANGE + \beta_4BDOUT + \beta_5\Delta CPA + \beta_6CEOPIC + \beta_7PROPEM + \beta_8POLCON + \beta_9SOE + \beta_{10}AUDREPORT + \varepsilon$$

Description:

FSCORE	= Fraudulent Financial Statements
$\beta_0$	= Constant regression coefficient
$\beta_1, 2, 3, 4, 5, 6, 7, 8, 9, 10$	= Regression coefficient of each proxy
ROA	= Financial Target
ACHANGE	= Financial Stability
DCHANGE	= Change of Directors
BDOUT	= Ineffective Monitoring
$\Delta CPA$	= Change in Auditor
CEOPIC	= Frequent Number of CEO's Picture
PROPEM	= Government Project
POLCON	= Political Connection
SOE	= State-owned Enterprises
AUDREPORT	= Audit Opinion
$\varepsilon$	= errors

## 4. Results and Discussion

**Table 1.** Descriptive Statistical Analysis

	FSCORE	ROA	BDOUT	ACHANGE	DCHANGE	CPA	CEOPIC	PROPEM	POLCON	SOE	AUDREPORT
Mean	0.163385	1.363562	0.402121	0.113491	0.590909	0.181818	2.030303	0.636364	0.454545	0.348485	0.636364
Median	0.142302	1.353650	0.400000	0.073625	1.000000	0.000000	2.000000	1.000000	0.000000	0.000000	1.000000
Maximum	7.508178	9.600000	0.600000	1.676057	1.000000	1.000000	5.000000	1.000000	1.000000	1.000000	1.000000
Minimum	-6.367935	-20.800000	0.250000	-0.963094	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Std. Dev.	3.093098	5.584423	0.106677	0.380480	0.495434	0.388650	1.163148	0.484732	0.501745	0.480142	0.484732

Based on the table above, it can be obtained information that fraud in the financial statements, which is promoted with the F-Score as the dependent variable, has an average (mean) of 0.163385 with a standard deviation of 3.093098. This value indicates that the



company's normal F-Score is 0.163385. However, there are companies that have a fairly high F-Score value of 7.508178, namely the company Matahari Putra Prima Tbk in 2021. Meanwhile, the company that has the lowest F-Score value, namely Astra Agro Lestari Tbk in 2021, is -6.367935.

The Financial Target variable can be measured by return on assets (ROA), which is the ratio between net income and total assets. The results of the descriptive analysis show that the mean value of the financial target is 1.363562 which shows the average value of the company's ability to generate profits. The company with the highest financial target value of 9.600000 means that Widodo Makmur Unggas Tbk's profit capability level in 2021 is the highest among other companies. Meanwhile, the lowest value is -20.80000, which means that Martina Berto Tbk's level of profit ability in 2021 is the lowest among the other sample companies. The standard deviation value is 5.584423. This value is greater than the mean value, thus showing a varied distribution of data.

The Financial Stability Variable Financial stability can be measured by changes in total assets (ACHANGE). The results of the descriptive analysis show a mean value of 0.113491 which indicates the average value of the company's ability to manage its assets. The company with the highest financial stability score of 1.676057 means that the ability level of Indofood CBP Sukses Makmur Tbk in 2020 is the highest among other companies. Meanwhile, the lowest value is -0.963094, which means that Diamond Food Indonesia Tbk's ability level in 2020 is the lowest among other sample companies. The standard deviation value is 0.380480. This value is greater than the mean, thus indicating a varied distribution of data.

The Change in director variable can be measured using the DCHANGE dummy variable. The results of the descriptive analysis show a mean value of 0.590909 which means that 59 units of analysis or 59% have changed company directors during 2020-2021 (code 1). Meanwhile, the remaining 39 analysis units or 39% did not change company directors during 2020-2021 (code 0). The standard deviation value is 0.495434. This value is smaller than the mean, thus indicating a homogeneous distribution of data.

The Ineffective Monitoring variable can be measured by comparing the number of independent commissioners to the total number of commissioners in a company. The results of the descriptive analysis show a mean value of 0.402121 which indicates the average value of the proportion of independent commissioners in the company. The company with the highest ineffective monitoring value is 0.600000, which means it has the highest proportion of independent board of commissioners for Diamond Food Indonesia Tbk in 2020 and 2021 among the other sample companies. Meanwhile, the lowest value is 0.250000 which means that it has the proportion level of the board of independent commissioners Sawit Sumbermas Sarana Tbk. in 2020 the lowest among other sample companies. The standard deviation value is 0.106677. This value is smaller than the mean value, which indicates a homogeneous distribution of data.

The Change In Auditor variable can be measured using the CPA dummy variable by looking at the changes in the Public Accounting Firm that audits each year. The results of the descriptive analysis show a mean value of 0.181818 which means that 18 units of analysis or 18% have changed the company's public accounting firm during 2020-2021 (code 1). Meanwhile, the remaining 80 units of analysis or 80% have not changed the company's public accounting firm during 2020-2021 (code 0). The standard deviation value is 0.388650. This value is greater than the mean, thus showing a varied distribution of data.

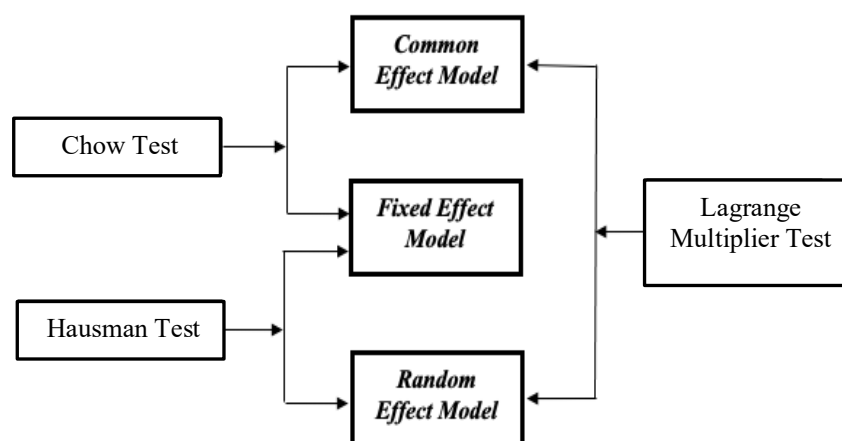
The Frequent Number of CEO's Picture variable can be measured using a dummy variable by looking at the number of CEO images that appear. The results of the descriptive analysis show a mean value of 2.030303 which means that 51 units of analysis or 51% use photos of the company's CEO during 2020-2021. Meanwhile, the remaining 47 analysis units or 47% did not use a photo of the company's CEO during 2020-2021. The standard deviation value is 1.163148. This value is smaller than the mean, thus indicating a homogeneous distribution of data.

The government project variable can be measured using the PROPEM dummy variable by looking at the cooperation between the company and the government. The results of the descriptive analysis show a mean value of 0.636364 which means that 63 units of analysis or 63% of the company's government projects occurred during 2020-2021 (code 1). Meanwhile, the remaining 35 units of analysis or 35% will not have corporate government projects during 2020-2021 (code 0). The standard deviation value is 0.484732. This value is smaller than the mean, thus indicating a homogeneous distribution of data.

The political connection variable can be measured using the POLCON dummy variable by looking at whether the CEO and the board of commissioners have a political relationship. The results of the descriptive analysis show a mean value of 0.454545 which means that 45 units of analysis or 45% have a political relationship between the CEO and the company's board of commissioners during 2020-2021 (code 1). Meanwhile, the remaining 53 analysis units or 53% have no political relationship between the CEO and the company's board of commissioners during 2020-2021 (code 0). The standard deviation value is 0.501745. This value is greater than the mean, thus showing a varied distribution of data.

The State Owned Enterprises variable can be measured using the SOE dummy variable by looking at government share ownership. The results of the descriptive analysis show a mean value of 0.348485 which means that 34 units of analysis or 34% do not have share ownership by the government during 2020-2021 (code 1). Meanwhile, the remaining 64 units of analysis or 64% are owned by the government during 2020-2021 (code 0). The standard deviation value is 0.480142. This value is greater than the mean, thus showing a varied distribution of data.

Audit Opinion Variables can be measured by audit opinion cycles using the AUDREPORT dummy variable. Rationalization measurements can use various indicators. The results of the descriptive analysis show a mean value of 0.636364 which means that 64 units of analysis or 64% have audit opinions during 2020-2021 (code 1). Meanwhile, the remaining 34 units of analysis or 34% did not receive an audit opinion during 2020-2021 (code 0). The standard deviation value is 0.484732. This value is smaller than the mean, thus indicating a homogeneous distribution of data.



**Figure 1.** Panel Data Regression Estimation

**Table 2.** Chow Test

The hypothesis in carrying out the chow test is:

H0 : The model will follow the Common Effect Model

H1 : The model will follow the Fixed Effect Model

Redundant Fixed Effects Tests

Equation: Untitled

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	2.677719	(32,27)	0.0054
Cross-section Chi-square	94.299295	32	0.0000

Based on the results obtained from the Chow test that has been carried out, it can be seen that there is a Cross-section F Probability value showing a number of 0.0054 and a Chi-square Cross-section value of 0.0000. This is able to explain that the value is seen to be smaller than the test significance level of 0.05, so it can be concluded that H1 is accepted, meaning that the good model used in this study is the Fixed Effect Model (FEM) when compared to the Common Effect Model (CEM).

**Table 3.** Hausman Test

The hypothesis in carrying out the Hausman test is:

H0 : The model will follow the Random effect model

H1 : The model will follow the fixed effect model

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.340672	7	0.9873

Based on the results of the hausman test that has been carried out, it is obtained that the Probability (Prob.) value of random cross-section shows the number 0.987 which can be interpreted that this number is higher than the test significance level of 0.05. So it can be concluded that H0 is accepted as the best model that is more feasible to use in this study, namely the Random Effect Model (REM) compared to the Fixed Effect Model (FEM).

**Table 4. Lagrange Multiplier Test**

The hypothesis in conducting the lagrange multiplier test is:

H0: The model will follow the Common effect model

H1: The model will follow the Random effect model

Lagrange Multiplier Tests for Random Effects

Null hypotheses: No effects

Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	4.398723 (0.0360)	0.687149 (0.4071)	5.085873 (0.0241)

Based on the results of the Lagrange Multiplier test that has been carried out, it is obtained that the Breusch-pagan Cross-section Probability value has a value of 0.0241, so it can be concluded that H1 is accepted as a feasible model to use, namely the Random Effect Model (REM) compared to the Common Effect Model (CEM) because the value Breusch-pagan cross-section probability  $< \alpha$  0.05.

**Table 5. Model Conclusion**

Based on the results obtained from the model selection test in the research that has been carried out, it can be concluded that the panel data regression model that will be used in hypothesis testing the Random effect model (REM).

Dependent Variable: FSCORE  
 Method: Panel EGLS (Cross-section random effects)  
 Date: 07/23/23 Time: 12:11  
 Sample: 2020 2021  
 Periods included: 2  
 Cross-sections included: 33  
 Total panel (balanced) observations: 66  
 Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.335387	1.955259	-0.171531	0.8644
ROA	-0.044370	0.078318	-0.566542	0.5733
ACHANGE	-0.772709	1.061114	-0.728205	0.4696
DCHANGE	0.226836	0.837891	0.270723	0.7876
BDOU	-2.306118	3.737911	-0.616954	0.5398
CPA	-1.082467	0.889119	-1.217461	0.2286
CEOPIC	0.700314	0.392884	1.782494	0.0802
PROPEM	-2.231119	1.015649	-2.196742	0.0323
POLCON	1.570072	1.022683	1.535248	0.1305
SOE	0.372859	1.048865	0.355488	0.7236
AUDREPORT	1.243672	0.968647	1.283927	0.2046

Effects Specification		S.D.	Rho
Cross-section random		1.970102	0.4529
Idiosyncratic random		2.165235	0.5471

Weighted Statistics			
R-squared	0.267927	Mean dependent var	0.100258
Adjusted R-squared	0.134823	S.D. dependent var	2.204823
S.E. of regression	2.050814	Sum squared resid	231.3210
F-statistic	2.012912	Durbin-Watson stat	2.108996
Prob(F-statistic)	0.049384		

Unweighted Statistics			
R-squared	0.346696	Mean dependent var	0.163385
Sum squared resid	406.2709	Durbin-Watson stat	1.200813

#### 4.1 Hypothesis Test

**Table 6. F-Test**

R-squared	0.267927	Mean dependent var	0.100258
Adjusted R-squared	0.134823	S.D. dependent var	2.204823
S.E. of regression	2.050814	Sum squared resid	231.3210
F-statistic	2.012912	Durbin-Watson stat	2.108996
Prob(F-statistic)	0.049384		

The hypothesis on the F test is as follows:

H0 : Not significant

H1 : Significant

Based on the table above, the F-statistics value is  $2.012912 > F$  table 2.051 and the prob value (F-statistic) is  $0.049384 > 0.05$ . Then H0 is accepted and H1 is rejected, which means that Financial Target, Financial Stability, Change of Directors, Ineffective Monitoring, Change In Auditor, Frequent Number Of CEO's Picture, Government Projects, Political Connection, and State Owned Enterprises, and Audit Opinion have no significant effect on fraud financial statements of companies in the non-cyclicals sector.

**Table 7. R<sup>2</sup> Test**

R-squared	0.267927	Mean dependent var	0.100258
Adjusted R-squared	0.134823	S.D. dependent var	2.204823
S.E. of regression	2.050814	Sum squared resid	231.3210
F-statistic	2.012912	Durbin-Watson stat	2.108996
Prob(F-statistic)	0.049384		

Based on the table above, the Adjusted Rsquared value is 0.134823, the coefficient of determination shows that Financial Target, Financial Stability, Change of Directors, Ineffective Monitoring, Change In Auditor, Frequent Number Of CEO's Picture, Government Projects, Political Connection, and State Owned Enterprises, and Audit Opinion can explain fraudulent financial statements of 13.48%. While the remaining 86.52% can be explained by other variables outside the panel data regression model in this study.

**Table 8. t Test**

The t test is used to determine whether each independent variable can have a significant effect on the dependent variable. By comparing the statistical value with the t-table value of 66 units of analysis (df:  $N-k = 66-2 = 64$ ), a t-table value of 1.997729 is obtained.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.335387	1.955259	-0.171531	0.8644
ROA	-0.044370	0.078318	-0.566542	0.5733
ACHANGE	-0.772709	1.061114	-0.728205	0.4696
DCHANGE	0.226836	0.837891	0.270723	0.7876
BDOUT	-2.306118	3.737911	-0.616954	0.5398
CPA	-1.082467	0.889119	-1.217461	0.2286
CEOPIC	0.700314	0.392884	1.782494	0.0802
PROPEM	-2.231119	1.015649	-2.196742	0.0323
POLCON	1.570072	1.022683	1.535248	0.1305
SOE	0.372859	1.048865	0.355488	0.7236
AUDREPORT	1.243672	0.968647	1.283927	0.2046

Based on their table above, it can be seen their results of the hypothesis test as follows:

##### 1. Results of Hypothesis 1 Test (H1)

The results of the t-test between the Financial Target and fraudulent financial statements obtained a regression coefficient of -0.044370 and a t-statistic value of -0.566542 which is smaller than the table value ( $-0.566542 < 1.997729$ ) with a probability

value of 0.5733 ( $\text{sig} > 0, 05$ ). So it can be stated that the Financial Target has no effect on fraudulent financial statements. Thus it is concluded that H1 is rejected.

#### 2. Results of Hypothesis 2 Test (H2)

The results of the t-test between Financial Stability and fraudulent financial statements obtained a regression coefficient of -0.772709 and a t-statistic value of -0.728205 which is smaller than the t-table value ( $-0.728205 < 1.997729$ ) with a probability value of 0.4696 ( $\text{sig} > 0.05$ ). So it can be stated that Financial Stability has no effect on fraudulent financial statements. Thus it is concluded that H2 is rejected.

#### 3. Results of Hypothesis 3 Test (H3)

The results of the t-test between the replacement of directors and fraudulent financial statements obtained a regression coefficient of 0.226836 and a t-statistic value of 0.270723 which is greater than the t-table value ( $0.270723 > 1.997729$ ) with a probability value of 0.7876 ( $\text{sig} > 0.05$ ). So it can be stated that external pressure has no effect on fraudulent financial statements. Thus it is concluded that H3 is rejected.

#### 4. Hypothesis 4 Test Results (H4)

The results of the t-test between Ineffective Monitoring of fraudulent financial statements obtained a regression coefficient of -2.306118 and a t-statistic value of -0.616954 which is smaller than the t-table value ( $-0.616954 > 1.997729$ ) with a probability value of 0.5398 ( $\text{sig} > 0, 05$ ). So it can be stated that H4 has no effect on fraudulent financial statements. Thus it is concluded that H4 is rejected.

#### 5. Hypothesis 5 Test Results (H5)

The results of the t-test between Change In Auditor and fraudulent financial statements obtained a regression coefficient of -1.082467 having a t-statistic value of -1.217461 which is smaller than the t-table value ( $-1.217461 < 1.997729$ ) with a probability value of 0.2286 ( $\text{sig} > 0.05$ ). So it can be stated that H5 has no effect on fraudulent financial statements. Thus it is concluded that H5 is rejected.

#### 6. Hypothesis 6 Test Results (H6)

The results of the t-test between the Frequency Number Of CEO's Picture and fraudulent financial statements obtained a regression coefficient of 0.700314 and a t-statistic value of 1.782494 which is smaller than the t-table value ( $1.782494 < 1.997729$ ) with a probability value of 0.0802 ( $\text{sig} > 0.05$ ). So it can be stated that H6 has no effect on fraudulent financial statements. Thus it is concluded that H6 is rejected.

#### 7. Hypothesis 7 Test Results (H7)

The results of the t-test between Government Projects on fraudulent financial statements obtained a regression coefficient of -2.231119 and has a t-statistic value of -2.196742 which is smaller than the t-table value ( $-2.196742 > 1.997729$ ) with a probability value of 0.0323 ( $\text{sig} > 0.05$ ). So it can be stated that H7 has an effect on fraudulent financial statements. Thus it is concluded that H7 is accepted.

#### 8. Hypothesis 8 Test Results (H8)

The results of the t-test between Political Connection to fraudulent financial statements obtained a regression coefficient of 1.570072 and a t-statistic value of 1.535248 which is smaller than the t-table value ( $1.535248 < 1.997729$ ) with a probability value of 0.1305 ( $\text{sig} > 0.05$ ). So it can be stated that H8 has no effect on fraudulent financial statements. Thus it is concluded that H8 is rejected.

### 9. Hypothesis 9 Test Results (H9)

The results of the t-test between State-Owned Enterprises and fraudulent financial statements obtained a regression coefficient of 0.372859 and a t-statistic value of 0.355488 which is smaller than the t-table value ( $0.355488 < 1.997729$ ) with a probability value of 0.7236 ( $\text{sig} < 0, 05$ ). So it can be stated that H9 has no effect on fraudulent financial statements. Thus it is concluded that H9 is rejected.

### 10. Results of Hypothesis 10 Test (H10)

The results of the t-test between the Audit Report and fraudulent financial statements obtained a regression coefficient of 1.243672 and a t-statistic value of 1.283927 which is smaller than the t-table value ( $1.283927 < 1.997729$ ) with a probability value of 0.2046 ( $\text{sig} > 0.05$ ). So it can be stated that H10 has no effect on fraudulent financial statements. Thus it is concluded that H10 is rejected.

## 4.2 Panel Data Regression Analysis

Based on the model testing carried out through the Chow test, Hausman test and Lagrange multiplier test previously, the most appropriate panel data regression model for this study is the Random Effect Model (REM). Thus the results of panel data regression with REM are used as the basis for regression analysis in determining the effect of the independent variables. The results of panel data regression with REM which were carried out using Eviews 13 can be seen in table below:

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.335387	1.955259	-0.171531	0.8644
ROA	-0.044370	0.078318	-0.566542	0.5733
ACHANGE	-0.772709	1.061114	-0.728205	0.4696
DCHANGE	0.226836	0.837891	0.270723	0.7876
BDOUT	-2.306118	3.737911	-0.616954	0.5398
CPA	-1.082467	0.889119	-1.217461	0.2286
CEOPIC	0.700314	0.392884	1.782494	0.0802
PROPEM	-2.231119	1.015649	-2.196742	0.0323
POLCON	1.570072	1.022683	1.535248	0.1305
SOE	0.372859	1.048865	0.355488	0.7236
AUDREPORT	1.243672	0.968647	1.283927	0.2046

Based on the table above, the regression equation in this study is:

$$\text{FSCORE} = \beta_0 + \beta_1\text{ROA} + \beta_2\text{ACHANGE} + \beta_3\text{DCHANGE} + \beta_4\text{BDOUT} + \beta_5\text{CPA} + \beta_6\text{CEOPIC} + \beta_7\text{PROPEM} + \beta_8\text{POLCON} + \beta_9\text{SOE} + \beta_{10}\text{AUDREPORT} + e$$

The regression equation above can be interpreted as follows:

1. The independent variable in this study is considered fixed, so the value of fraudulent financial statements is -0.335387.
2. The Financial Target coefficient is -0.044370. Shows that financial stability has a negative direction towards fraudulent financial statements.
3. The Financial Stability coefficient is -0.772709. Shows that financial targets have a negative direction towards fraudulent financial statements.
4. The coefficient value of the Change of Directors is 0.226836. Shows that external pressure has a positive direction towards fraudulent financial statements.
5. Ineffective Monitoring coefficient value is -2.306118. Shows that ineffective monitoring has a negative direction towards fraudulent financial statements.
6. The Change in Auditor coefficient is -1.082467. Shows that Change in Auditor has a negative direction towards fraudulent financial statements.

7. The coefficient value of the Frequent Number Of CEO's Picture is 0.700314. Shows that CEO tenure has a positive direction towards fraudulent financial statements.
8. The coefficient value of Government Projects is -2.231119. Shows that managerial ownership has a negative direction towards fraudulent financial statements.
9. The coefficient value of Political Connection is 1.570072. Shows that the change in director has a positive direction towards fraudulent financial statements.
10. The coefficient value of State-owned enterprises is 0.372859. Shows that government ownership has a positive direction towards fraudulent financial statements
11. Audit Opinion coefficient value 1.243672. Shows that political consequences have a positive direction towards fraudulent financial statements.

## 5. Conclusion

Based on the results of the data processing that has been presented, the following conclusions can be obtained: 1) The Financial Target has no effect on fraudulent financial statements of non-cyclical companies listed on the IDX for 2020-2021. The company's ability to achieve financial targets indicates the occurrence of financial statement fraud as evidenced by a significance value greater than 0.05, namely 0.5733. 2) Financial Stability has no effect on fraudulent financial statements of non-cyclical companies listed on the IDX for 2020-2021. The company's ability to achieve financial stability does not indicate fraudulent financial reporting, as evidenced by a significance value greater than 0.05, namely 0.4696. 3) Change of Directors has no effect on fraudulent financial statements of non-cyclical companies listed on the IDX for 2020-2021. The company's ability to achieve a change of directors does not indicate fraudulent financial reporting, as evidenced by a significance value greater than 0.05, namely 0.7876. 4) Ineffective Monitoring has no effect on fraudulent financial statements of non-cyclical companies listed on the IDX for 2020-2021. The company's ability to achieve an increase in company size does not indicate the occurrence of financial statement fraud, as evidenced by a significance value greater than 0.05, namely 0.5398. 5) Change In Auditor has no effect on fraudulent financial statements of non-cyclical companies listed on the IDX for 2020-2021. The company's ability to manage accounts receivable does not indicate fraudulent financial reporting, as evidenced by a significance value greater than 0.05, namely 0.2286. 6) The Frequent Number of CEO's Picture has no effect on fraudulent financial statements of non-cyclical companies listed on the IDX for 2020-2021. The company's ability to achieve audit turnover does not indicate the occurrence of financial statement fraud, as evidenced by a significance value greater than 0.05, namely 0.0802. 7) Government projects have had a positive effect on fraudulent financial statements of non-cyclical companies listed on the IDX for 2020-2021. The company's ability to post a photo of the CEO does not indicate fraudulent financial reporting, as evidenced by a significance value greater than 0.05, namely 0.0323. 8) Political connections have no effect on fraudulent financial statements of non-cyclical companies listed on the IDX for 2020-2021. The company's ability in government projects does not indicate the occurrence of financial statement fraud, as evidenced by the significance value that is greater than 0.05, namely 0.1305. 9) State-owned enterprises have no effect on fraudulent financial statements of non-cyclical companies listed on the IDX for 2020-2021. The company's ability to have government connections does not indicate fraudulent financial reporting, as evidenced by a significance value greater than 0.05, namely 0.7236. 10) Audit Opinion has no effect on fraudulent financial statements of non-cyclical companies listed on the IDX for 2020-2021. The company's ability to be owned by the government does not indicate the



occurrence of financial statement fraud, as evidenced by the significance value which is greater than 0.05, namely 0.2046.

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