

## HOW DETECT FRAUD WITH HEXAGON MODEL ON FINANCIAL STATEMENT FRAUD IN PROPERTY AND REAL ESTATE INDONESIA

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### Abstract

Examining how Freud's hexagon framework relates to financial statement fraud is the focus of this study. In total, ten factors were considered. Financial Target, Financial Stability, External Pressure, Change of Director, Nature of Industry, CEO Picture, Political Connection, Audit Opinion, CEO Education and Effective Monitoring. Financial statement fraud is measured using the Beneish M-Score Model. The research sample consists of industries in the property and real estate sector based on data from the Indonesia Stock Exchange (IDX) during the 2020-2022 period. The number of companies included in the sample was 35. This study uses panel data regression analysis for data analysis purposes. The results of this study indicate that Financial Target, Financial Stability, External Pressure, Change of Director, Nature of Industry, CEO Picture Audit Opinion and Effective Monitoring have no effect on the potential for fraudulent financial statements. While Change in Auditor and Political Connection have an effect on fraudulent financial statements in the Property and Real Estate sector.

Keywords: Fraud Hexagon Model, Financial Statement Fraud, Property and Real Estate Indonesia

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### 1. Introduction

Financial statements are a tool that can be used in seeing the company's financial condition. The financial statements show the financial position of a company's performance in making a profit (Trianto, 2017). The Financial Report is a communication from top managers to their subordinates and outside the company during a certain period of time. Presenting quantities intentionally or omitting disclosures to mislead users of financial statements is financial statement fraud. The most common forms of this fraud include under-reporting assets and revenues, and over-reporting liabilities and expenses. Due to fraud, the numbers in the books may not add up or may push investors and creditors in the wrong direction (Susianti & Yasa, 2015).

Fraud can arise due to encouragement and motivation from parties either internal or external to the company (Permatasari, 2021). Asset misappropriation fraud based on data is 86%, corruption is 50% and financial statement fraud is 9%. The least fraud that occurs is financial statement, but this fraud causes the most losses compared to other fraud, which reaches USD 593,000. According to ACFE in the Report to the Nation (2018) this figure decreased compared to 2018, which reached 10% with a loss of USD 800,000.

One of the financial reporting cases in the property and real estate sector is the case committed by PT Bakrieland Development Tbk which occurred in 2019. The company did not record long-term liabilities. PT Bakrieland Development Tbk was warned by the IDX because it had not reported its financial statements in 2018 and late fines had not been paid. Finally, the IDX suspended ELTY's stock trading activities and added a fine

of IDR 150 million (Dwi Ayuningtyas, 2019). The previous fraud case that was also experienced in the property and real estate sector was the manipulation case of PT Hanson International Indonesia. In OJK records, PT Hanson International was recorded manipulating financial statements in 2016. In its examination, there was manipulation of the sale of land plots worth Rp 732 billion which resulted in PT Hanson International appearing to rise sharply. Due to the manipulation of the financial statements, OJK sanctioned PT Hanson International Tbk to be fined Rp 500 million and reviewed the 2016 annual financial statements by the government. While the CEO of PT Hanson International Tbk (Benny Tjokro) was fined Rp 5 billion. Directors Adnan Tabrani was also sanctioned with a fine of IDR 100 million. Then the auditors from the Public Accounting Firm (KAP) Purwanto, Sungkoro, and Surja, were sentenced to have their Registered Certificate suspended for a year (Lestari & Jayanti, 2021).

**Financial Target Relationship to Financial Statement Fraud.** According to Bawekes et al. (2018), In general, a company performs better if it meets or exceeds its financial goals. However, there are times when external variables beyond the company's control make it impossible to meet financial goals, causing skepticism about the success of the business. Fraud is often triggered by pressure to meet financial goals, both for personal gain and to maintain business continuity. According to research by Setiawati and Baningrum (2018), the profit of a company on the implementation of a work can be measured, among others, by ROA (Return on Assets). The greater the company's expected return on investment, the greater the likelihood of management being involved in fraudulent activities.

**The relationship between Financial Stability and Financial Statement fraud.** Financial and non-financial variables, such as one's lifestyle or economic circumstances, can contribute to the development of pressure, a situation that leads to fraudulent behavior (Bawekes et al., 2018). Pressure is accounted for in this investigation through monetary security. Public perceptions of a decline in company performance, which may hinder the inflow of investment money in the coming year, can put undue pressure on management in an uncertain business environment (Adherian Kurnia & Anis, 2017).

**Relationship between External Pressure and Financial Statement fraud.** To function, businesses need access to internal and external capital. Measurement of external pressure is done through the leverage ratio, which is the amount of liabilities divided by total assets. A high leverage ratio shows a company with significant debt and high credit risk. Lenders are nervous about giving money to businesses if they see significant credit risk. As a result, corporations may engage in false financial reporting to gain legitimacy in the eyes of creditors and other funders (Agusputri & Sofie, 2019).

**Linkage of Change of Director to Financial Statement Fraud.** The new board of directors may be able to cover up dishonest financial reporting from the previous board. Most businesses that commit fraud go through a phase of frequent director turnover due to the stress that comes with being caught (Cindy & Anik, 2022). When board turnover occurs, it is expected that the company can perform better and meet higher standards. If a director has proven to be very effective in his role, he can be promoted in the company by better contributing to its growth and success through the medium of a directorship (Herlina & Niken, 2022).

**Relationship between Nature of Industry and Financial Statement Fraud.** In the financial statements, this is described as an increase or decrease in accounts receivable. For accounts that require subjective supervision, the existence of an Internal Control System (ISS) and good management in the organization allows for rapid detection of fraudulent activities. (Cindy & Anik, 2022). Having inventory in multiple locations

increases the likelihood of inventory value fraud, just as having inventory overseas increases the likelihood of misstatements in financial statements. Corporations that have these characteristics are more likely to engage in false financial reporting under certain conditions (Sekar, 2018).

**Ceo's Picture Relationship to Financial Statement Fraud.** The frequency of CEO photos used in the company's annual report. The CEO's desire to be recognized by the public can be seen from the CEO's similar appearance. The CEO's arrogance is reflected in the number of times his photo is used in the company's annual report. Due to his haughty demeanor, the CEO may believe that he is above any internal scrutiny (Aprilia, 2017). Three studies, by Bawekes et al. (2018), Rusmanto and Elfia (2020), and Utami and Pusparini (2019), show portraits of CEOs playing a role in exposing fraudulent financial statements.

**Political Connection to Financial Statement Fraud.** If a company is involved in collaboration with government programs, it is likely to be involved in false financial reporting. Conversely, if the company refrains from participating in government projects, the likelihood of fraudulent financial reporting decreases.

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**Linkage of Audit Opinion to Financial Statement Fraud.** Audit opinion is the auditor's evaluative perspective on financial statements. The assessment of an audit opinion can be determined by the auditor's assessment of the financial statements of a company that has been audited. This assessment is represented by an unqualified opinion accompanied by explanatory language. The perspective articulated by the auditor significantly affects the caliber of the financial statements (Ratna, 2022). The incidence of financial statement fraud can be reduced by obtaining an unqualified audit opinion with explanatory words, and is likely to increase if the opposite is achieved (Herlina & Niken, 2022).

**Relationship between CEO Education and Financial Statement Fraud.** What is meant by CEO education is the level of schooling achieved by the person in the role. It was found that 51% of CEOs with a bachelor's degree or more were also fraudsters in the workplace (Association of Certified Fraud Examiners, 2016). CEOs with higher degrees may be more likely to commit fraud because they may be better equipped, with their new expertise, to exploit vulnerabilities in the company's accounting practices and thereby inflate the company's financial reporting.

**The Relationship of Effective Monitoring to Financial Statement Fraud.** Without proper supervision from management, employees may be tempted to take advantage of opportunities for financial statement fraud and commit fraudulent acts (Mega & Deliza, 2019). Effective monitoring measurement is based on the number of independent commissioners in the company (BDOUT). As a result, OJK regulations regarding the percentage of independent commissioners have increased efficiency so that businesses can monitor management performance (Suratno, Syahril & Selvi, 2022).

## 2. Theoretical Background

### 2.1 Agency Theory

Jensen and Meckling in 1976 in Mumpuni & Jatiningsih (2020) suggested that if a contract occurs between one party principal (principal) and another party (agent) with the transfer of some decision-making authority to the agent, it will cause an agency relationship. If this theory is applied to the relationship between shareholders and company management, the shareholders are the principal and company management is the agent. Agency theory is based on three basic human traits stated by Eisenhardt (1989) in Lisa (2012), namely self-interest, bounded rationality, and risk aversion. What is meant by self-interest is that humans generally put themselves first. Humans have what is called "bounded rationality", which means they can only think far into the future. Then there is risk aversion, the tendency of people to avoid danger. Financial statement fraud is possible when agents take advantage of the information gap between them and their principals to make false statements. The preceding explanation lends credence to the hexagon theory of fraud, which proposes that fraudulent behavior may be triggered by human nature when under pressure, getting an opportunity, rationalization of his actions, the abilities he possesses, arrogance over what is his, and collusion due to human self-interest.

### 2.2 Fraud

Financial statements are a useful tool in knowing the company's financial situation. The financial statements show the financial position of a company's performance in making a profit (Trianto, 2017). Financial reports aim to convey information from top management to employees and parties outside the organization for a certain period of time. Intentionally presenting quantities or omitting disclosures to mislead users of financial statements is financial statement fraud. The most common forms of this fraud include under-reporting assets and revenues, as well as over-reporting liabilities and expenses. Users of financial statements can be misled by fraudulently created data if the data is not required (Susianti & Yasa, 2015). Fraud can occur when people internal or external to the company support or motivate dishonest employees (Permatasari, 2021). Eighty-six percent of financial statement fraud, fifty percent of corruption, and nine percent of asset misappropriation fraud. According to Albrecht and Albrecht (2008), there are generally two categories of fraud. Organizational fraud is the first category. Employees, vendors, customers and others are common perpetrators of this form of fraud. The second is management fraud, sometimes known as false financial reporting. Perpetrators of management fraud are usually high-ranking company officials, government officials, or commissioners. When a manager commits fraud, they do so on behalf of the company, even if they personally benefit in the process.

### 2.3 Financial Statement Fraud

based on Mark F et al. (2017), a person can commit fraud in various ways, all with the intention of using fraud to gain an unfair advantage. Sorunke (2016) defines fraud as "any intentional deception, failure to disclose material information, or other unfair or illegal practice."

## 2.4 Fraud Hexagon Model

The Fraud Hexagon includes six different elements, specifically pressure, ability, collusion, opportunity, rationalization, and ego. The hexagon theory of deception includes six different components, derived from the triangle, diamond and pentagon theories of deception. These components have been further augmented by the inclusion of the collusion component. A difference exists in this theory, which relates to the nomenclature of the components used. The theory under consideration includes many components that, although given different names, have analogous significance to those found in previous theories. The component of inner distress is a stimulus that is in line with the concept of distress as proposed earlier by Cressey Donald (1953), D. T. Wolfe & Hermanson (2004), and Marks (2011). The next component to be discussed is ego, which can be understood as synonymous with arrogance, as Marks (2011) explains in relation to the pentagon theory of deception. The inclusion of the collusion component is an additional element in the hexagon theory of deception.

## 2.5 Financial Targets

Companies need to have a financial goal in mind, and that goal should be to make a profit. It is not uncommon for management to feel pressured to achieve the financial targets of the board of directors, which are profit and sales targets. In accordance with the principles of agency theory, the board of directors may reward management with more resources if they succeed in achieving these goals. An individual may be influenced to engage in fraudulent behavior by these factors (Skousen et al., 2011). There is evidence from research conducted by Rukmana (2018), Yesiriani and Rahayu (2017), Umar et al. (2020), and Noble (2019) that financial saaraan has an influence on the ability to recognize false financial statements. However, research by Sihombing and Rahardjo (2014) and Handoko and Natasya (2019) states that financial targets are not effective in detecting fraudulent financial statements.

## 2.6 Financial Stability

Skousen et al. (2009) argue that managers may feel pressured to engage in dishonest financial reporting when the company's financial health is challenged by economic conditions, industry, and operating scenarios. From the point of view of investors and customers, companies look better when their finances are secure. However, if the economy is shaky, investors may be less willing to put money into the market. As a result, management uses deceptive financial reporting to hide the company's precarious financial position. Company management is more likely to falsify financial statements under pressure if the company's financial situation is precarious (Septriyani & Handayani, 2018).

## 2.7 External Pressure

Internal and external financial resources are usually required for a business to function. The ratio of total liabilities to total assets is used as a substitute for market pressure. If a company has a high leverage ratio, it has a lot of debt and is risky to invest in. The greater the credit risk, the more hesitant lenders are to extend credit to the business. Therefore, companies may engage in false financial reporting to appear legitimate to their creditors and other potential investors (Agusputri & Sofie, 2019). Nonetheless, studies by Septriyani and Handayani (2018) and Agusputri and Sofie (2019) on the impact of external pressure on financial reporting fraud found that such reporting is reduced.

## 2.8 Change of Director

If a company is not satisfied with the performance of its board of directors, the company may try to improve the situation by reorganizing the board or appointing new directors who are considered more capable of leading the company. Replacing the board of directors can also signal a political motivation for change. On the other hand, it is commonly believed that bringing in new directors will slow down the company's performance as they need more time to integrate into the company's established culture (Septriyani & Handayani, 2018).

## 2.9 Nature of Industry

Opportunity is a condition that can occur due to the formation of opportunities to commit fraud (A. Aprilia, 2017). This can happen because fraudsters believe that their actions cannot be detected. When actions are detected, they believe that no consequences will be taken (Pasaribu & Kharisma, 2018). One of the opportunities that causes fraudulent actions on financial statements is the nature of the industry.

## 2.10 CEO Picture

CEO's pictures are the number of CEO pictures on the company's annual report. The appearance of the CEO's photo, it can be assumed that the person wants to be known. The CEO's arrogance is monitored in the number of pictures of him throughout the annual report. Because of his cavalier attitude, the CEO may think that he can avoid responsibility from his own staff (Aprilia, 2017). Some studies, such as those conducted by Bawekes et al. (2018), Rusmanto and Elfia (2020), and Utami and Pusparini (2019), have stated that CEO portraits affect the ability to discover financial statement fraud. On the other hand, Aprilia (2017) examined something similar and found that the number of CEO company photos did not increase the ability to find cases of financial statement fraud.

## 2.11 Companies That Cooperate with The Government (Political Connection)

Falsified financial statements are more likely to occur if the company is involved in government projects, and the risk of fraud is reduced if the company is not involved in government programs.

## 2.12 Audit Opinion (Audit Opinion)

According to Agoes Sukrisno (2012: 74) Audit opinion is the auditor's professional judgment on the accuracy and completeness of the financial statements. A dummy variable representing the auditor's opinion is used, with a value of 1 indicating that the company receives an unqualified view accompanied by an explanatory paragraph, and a value of 0 indicating that the company receives another opinion from the auditor. The auditor's view on the audited entity's financial statements is known as the audit opinion. Relevance, wealth, and cash flow are all aspects of financial fairness. Financial statement fraud can be influenced by auditor opinion, according to research by Kabila & Suryani (2019) and Ginting (2020).

## 2.13 CEO Education

What is meant by CEO education is the level of schooling achieved by the person in the role. It was found that 51% of CEOs with a bachelor's degree or more were also fraudsters in the workplace (Association of Certified Fraud Examiners, 2016). CEOs with

higher degrees may be more likely to commit fraud because they may be better equipped, with their newfound expertise, to exploit vulnerabilities in the company's accounting practices and thus inflate the company's financial reporting.

### 2.14 Effective Monitoring

Wijayani & Ratmono (2020) consider the board of commissioners to be in the most important role in monitoring and the percentage of independent commissioners is an indication of the extent to which they are responsible for monitoring management practices in general. As a neutral third party, the board of commissioners mediates conflicts between management and shareholders. When there are more impartial board members, it is easier to spot signs of wrongdoing. According to Agusputri and Sofie's (2019) research, financial reporting dishonesty increases when supervision is weak.

## 3. Methods

### 3.1 Variable definition and measurement

#### 3.1.1 Dependent Variable

Fraud in financial statements is the focus of this study. The Beneish M-Score model is used to measure the extent to which false information has been included in financial statements. The eight financial ratios shown in the following table are used in this model to detect fraud:

**Table 1.** Measurement of Dependent Variables

	<b>Pengukuran</b>
DSRI	$\frac{\text{Piutang } t / \text{penjualan } t}{\text{Piutang } t-1 / \text{penjualan } t-1}$
GMI	$\frac{\text{Laba kotor-1} / \text{penjualan -1}}{\text{Laba kotor } t / \text{penjualan } t}$
AQI	$\frac{(1 - ((\text{asset lancar } t + \text{asset tetap } t) / \text{total asset } t))}{(1 - ((\text{asset lancar } t - 1 + \text{asset tetap } t - 1) / \text{total asset } t - 1))}$
SGI	$\frac{\text{Penjualan } t}{\text{Penjualan } t-1}$
DEPI	$\frac{(\text{depresiasi } t - 1 / (\text{asset tetap } t - 1 + \text{depresiasi } t - 1))}{\text{depresiasi } t / (\text{asset tetap } t + \text{depresiasi } t)}$
SGAI	$\frac{\text{SGA } T / \text{Penjualan } t}{\text{SGA } T-1 / \text{Penjualan } t-1}$
LVGI	$\frac{\text{Total liabilitas } t / \text{total asset}}{\text{Total liabilitas } t-1 / \text{total asset -1}}$
TATA	$\frac{\text{Laba usaha- arus kas operasional}}{\text{Total asset}}$

The following formula explains the Beneish M-Score Model, which is derived by performing calculations with eight ratios (Fitri et al., 2019):

$$\text{M-Score} = -4.840 + 0.920\text{DSRI} + 0.528\text{GMI} + 0.0404\text{AQI} + 0.892\text{SGI} + 0.115\text{DEPI} - 0.172\text{SGAI} + 4.679\text{TATA} - 0.327\text{LVGI}$$

If the calculation is  $> -2.22$ , the company is considered to have indicated or committed fraud. If the calculated value is  $< -2.22$ , the company is declared not fraudulent. If there is evidence that the corporation falsified its financial statements, it will receive 1, but if there is no evidence, it will receive 0.

### 3.1.2 Independent Variables

The main variable used in this research investigation is the hexagon of fraud, which is operationalized through the utilization of ten different components, namely Financial Target, Financial Stability, External Pressure, Change of Director, Nature of Industry, CEO Picture, Political Connection, Audit Opinion, CEO Education, Effective Monitoring. The following is the measurement of each independent variable:

**Table 2.** Measurement of Independent Variables

Variabel	Pengukuran
Financial Target	ROA = Laba Bersih/Total Aset
Financial Stability	ACHANGE = Total Aset (t) - Total Aset (t-1)/ Total Aset (t-1)
External Pressure	LEV = Total Liabilitas / Total Aset
Change Of Director	Variabel dummy, apabila terdapat pergantian direksi selama periode 2020 -2022 maka di berikan kode 1, sebaliknya diberi kode 0
Nature Of Industry	NOI = (Receivable/Sales)-(Receivable(t-1)/ Sales (t-1))
CEO Picture	Variabel dummy, apabila terdapat foto CEO diberi kode 1, sebaliknya diberi kode 0
Political Connection	Variabel dummy, apabila kepemilikan perusahaan dimiliki oleh pemerintah selama periode 2020 - 2022 di beri kode 1, sebaliknya
Opini Audit	Variabel dummy, apabila perusahaan memperoleh opini WTP diberi kode 1, begitu
CEO Education	Variabel dummy, apabila CEO berpendidikan D3 diberi kode 1, S1 kode 2, S2 kode 3, S3 kode 4
Effective Monitoring	BDOU = Jumlah Komisaris Independen/Jumlah Dewan Komisaris

### 3.2 Sampling Method

The study uses a population consisting of Property and Real Estate companies listed on the IDX in 2020-2022. The selection criteria for inclusion in the population are companies that have audited financial statements. The researchers used a purposive sampling technique to select participants with specific criteria needed for this study. The conditions mentioned above include:

- a. Properties and real estate companies that consistently publish annual reports in 2020-2022.
- b. Properties & Real Estate companies that experienced profits during the 2020-2022 period.
- c. Properties & Real Estate companies that received an unqualified audit opinion during the period 2020 - 2022.

### 3.3 Panel Data Regression Estimation

In analyzing the data, panel data regression model is used. Several independent variables can be tested for their impact on one target variable with this methodology. This is how the numbers work:

$$FFS = a + b1 ROA + b2 ACHANGE + b3 LEV + b4 DCHANGE + b5 NOI + b6 CEOPIC + b7 CEODU + b8 OA + b9 CEOP + b10BDOUT + e$$



Description:

FFS	= Financial Statement Fraud
a	= Constant
b	= Regression coefficient
ROA	= Financial Target
ACHANGE	= Financial Stability
LEV	= External Pressure
DCHANGE	= Change Of Director
NOI	= Nature of Industry
CEOPIC	= CEO Picture
COL	= Political Connection
OA	= Opinion Audit
CEOP	= CEO Education
BDOUT	= Effective Monitoring

Panel data regression modeling can be done through Common Effect Model, through Fixed Effect Model, or through Random Effect Model. The question that naturally follows is which of the three models is useful in establishing the panel data regression model that best fits the problem at hand. The optimal panel data regression model for a problem can be selected using one of three specific tests, as described by Widarjono (2007: 258):

a. Common Effect Model (CEM)

Only time series and cross section data are combined in the panel data model, making it the simplest of the three. Estimation is done using the Ordinary Least Square (OLS) model.

b. Fixed Effect Model (FEM)

Individuals are treated as independent variables in this model, with the expectation that their differences can be explained by variations in their tapping. To incorporate intercept differences among firms, this model uses a dummy variable strategy to estimate panel data.

c. Random Effect Model (REM)

This model incorporates the possible appearance of nuisance variables in the temporal relationship. Generalized Least Squares (GLS) is the appropriate technique to use. Generalized linear modeling (GLM) is one method to overcome the problem of autocorrelation demand and correlation between observations for each variant.

Selection of Panel Data Regression Model Technique

a. Chow Test

The Chow test compares the common effect method with the results of the fixed effect model to determine which is superior to use in analyzing panel data.

b. Hausman Test

The model obtained using the random effect model technique and the model obtained using the fixed effect model strategy are compared using the Hausman test in selecting the best panel data regression method. We start with the assumption that the model errors are not associated with a particular set of predictors.

c. Lagrange Multiplier (LM) test

Widarjono (2007) suggests using the Lagrange multiplier test to compare the resulting model using the random effect model technique obtained through the common effect model approach when analyzing panel data for regression.

### 3.4 Multicollinearity Test

Whether or not the independent variables in a regression model are correlated is the motivation for running a multicollinearity test (Ghozali, 2016). With the multicollinearity test, we can see whether the independent variables are correlated in the regression modeling. If the standard error is high, the t-count will be lower than the t-table when testing the coefficients. This shows a lack of linear relationship between the independent and dependent variables. Note the Tolerance and Variance Inflation Factor (VIF) values in the regression model to test the hypothesis.

### 3.5 Heteroscedasticity Test

The regression model is tested for heteroscedasticity to see if the residuals have different records for each observation (Juliandi et al., 2014). The purpose of heteroscedasticity testing ascertains whether the residuals of the regression model have an undesirable dependence on the values of other observations. Since cross-sectional data typically capture information from a variety of sample sizes, including small, medium, and large samples, heteroscedasticity scenarios are common. To check for heteroscedasticity, one can use:

1. Scatterplot graph or the predicted value of the associated variable i.e. SRESID with the residual error i.e. ZPRED.
2. Breusch-Pagan test
3. Chi square
4. Glejser test
5. ARCH test

### 3.6 Hypothesis Testing

Hypothesis testing involves analyzing data collected from experiments and from (uncontrolled) observations to reach conclusions. The statistical significance of results is unlikely to occur accidentally, given some predetermined possibilities. The null hypothesis is usually the starting point when deciding whether or not to conduct a hypothesis test. It is the test that determines whether or not the administration of the question corresponds to the null hypothesis.

### 3.7 F test

The F test aims to determine whether there is a concurrent (or simultaneous) effect of the independent factors on the dependent variable. The F-test is run to determine how all independent variables affect the dependent variable. An F-value of less than 0.05 is said to be statistically significant, meaning that the independent factors have a joint effect on the dependent variable (Ghozali, 2016). Here are the rules for taking the F test: (Ghozali, 2016):

1. If the calculated F statistical value is less than 0.05, showing (H<sub>0</sub>) can be rejected in favor of the alternative hypothesis (H<sub>1</sub>). That is because each independent variable has a large effect on the dependent variable.
2. If the calculated F-statistic value is greater than the previous significance level of 0.05, the null hypothesis (H<sub>0</sub>) is accepted. In this case, the alternative hypothesis (H<sub>1</sub>) states that elements outside the dependent variable play no role in shaping it.

### 3.8 Coefficient of Determination (R<sup>2</sup>)

The coefficient of determination is tested to assess the capacity of the model to explain the collective impact of the independent variables on the dependent variable. Of course, it is assessed through examining the adjusted R-Squared value (Ghozali, 2016). The coefficient of determination quantifies the extent to which the independent variables in the regression model can explain the observed variability in the dependent variable. The coefficient of determination can be obtained through the R-square (R<sup>2</sup>) value presented in the Model Summary table. As stated by Ghozali (2016), a low coefficient of determination indicates the limited explanatory power of the independent factors in relation to the dependent variable. Conversely, when the value is close to 1 and deviates from 0, it indicates that the independent variable has the capacity to provide sufficient information to predict the dependent variable (Ghozali, 2016).

### 3.9 T-test

Two independent samples taken from the same population are not significantly different from each other, according to the null hypothesis of the t test (Sudjiono, 2010). By evaluating the T-statistic through a bootstrap process, the significance level of the hypothesis test can be seen. If you are testing a hypothesis, you should only include results with T-statistics greater than 1.96, while results with T-statistics less than 1.96 will be ignored (Ghozali, 2016). Consider the significance of the coefficient table when making your selection. The general significance levels for testing regression results are 95% and 5% (= 0.05), respectively. Indicators used in statistics (Ghozali, 2016):

1. If the p value of the t-test is greater than 0.05, the null hypothesis (H<sub>0</sub>) is accepted, and the alternative hypothesis (H<sub>a</sub>) is rejected. This implies that there is no discernible relationship or impact between the independent variable and the dependent variable.
2. If the p-value of the t-test is less than 0.05, the null hypothesis (H<sub>0</sub>) is rejected in favor of the alternative hypothesis (H<sub>a</sub>). This implies that there is a relationship where the independent factor has an impact on the dependent variable.

### 3.10 Panel Data Regression Analysis

Panel data regression analysis is a statistical technique useful in testing the impact of independent factors on the dependent variable across different sectors, observed over a period of time, in a research context. Panel data regression analysis is a statistical technique useful in testing the impact of independent factors on the dependent variable across many sectors, observed over a period of time in a research study. Furthermore, panel data regression is used to forecast the dependent variable in each defined sector. However, before making predictions, it is necessary to forecast the predictor variables in each sector. The panel data regression model is mathematically represented by equation (1)[5]. (1)  $i = 1, \dots, K; t = 1, \dots, T$  where  $i$  is the number of iterations and  $K$  the number of cross sections per unit. The number of inconstant variables in  $x_{it}$  is  $p$ .  $Z_i$  consists of observable and unobservable constants and individual-level effects.  $\beta$  is a  $p$  by 1 matrix representing the slope.

## 4. Results and Discussion

There are a total of 105 samples available for this study (35 companies x 2 years), all of which are from the property and real estate industry and will be listed on the IDX in 2020 and 2022. The following table details the criteria in the selection of study participants:

Table 3 Research Sample Selection

No	Keterangan	Jumlah Perusahaan
1	Perusahaan property dan real estate yang terdaftar di BEI pada tahun 2020-2022	80
2	Perusahaan properties dan real estate yang tidak mempublikasikan secara konsisten laporan tahunan pada tahun 2020-2022	23
3	Perusahaan Properties & Real Estate yang mendapat Opini Audit Non WTP pada tahun 2020 - 2022	3
4	Perusahaan properties & real estate yang mengalami kerugian selama periode tahun 2020-2022	19
	jumlah perusahaan terpakai	35
	tahun pengamatan 2020-2022	3
	jumlah sampel	105

#### 4.1 Descriptive Statistical Analysis

Descriptive statistical analysis offers a comprehensive summary of the data by examining key statistical measures such as mean, minimum, maximum, and standard deviation for each variable under investigation. The next table displays the results of the descriptive statistical analysis:

Table 4. Descriptive Statistics Results

Keterangan	N	Mean	Minimum	Maksimum	Std.Deviasi
<b>Variabel Dependent</b>	35				
<i>Kecurangan Laporan Keuangan</i>	35	0,342857	0,100000	0,900000	0,218763
<b>Variabel Independent</b>	35				
<i>Financial Target</i>	35	2,865238	0,050000	78,900000	11,490730
<i>Financial Stability</i>	35	-2,740000	-99,600000	9,000000	14,182820
<i>External Pressure</i>	35	3,629524	0,100000	148,100000	15,127080
<i>Change Of Director</i>	35	0,628571	0,000000	1,000000	0,485504
<i>Nature Of Industry</i>	35	0,466667	0,000000	1,000000	0,501280
<i>Ceo Picture</i>	35	0,532857	0,000000	1,000000	0,500549
<i>Political Connection</i>	35	0,485714	0,000000	1,000000	0,502193
<i>Opini Audit</i>	35	0,619048	0,000000	1,000000	0,487950
<i>CEO Education</i>	35	3,190476	1,000000	4,000000	0,920861
<i>Effective Monitoring</i>	35	0,919505	0,200000	2,000000	0,390777

The table presented above provides an overview of the statistical measures for each research variable, including the mean, minimum, maximum, and standard deviation values. The results of the table above provide information about descriptive statistics on the dependent variable, namely financial statement fraud and the independent variables, namely financial targets, financial stability, external pressure, change of director, nature of industry, CEO pictures, political connection. audit opinion, CEO education, effective monitoring. The following is also an explanation of the descriptive analysis carried out on each variable:

##### 4.1.1 Descriptive Statistical Analysis of Financial Statement Fraud

The Beneish M-Score (MSCORE) model can be used to assess how far the company is fraudulent in its financial statements. Descriptive statistics reveal an average value of 0.342. If the MSCORE for the company under investigation is generally positive, there is little or no evidence of dishonest financial reporting. Of the 35 units of analysis, there are no units of analysis that have a negative MSCORE analysis is not indicated to have a value of financial statement fraud. The minimum value of 0.010 owned by PT Makmur Berkah Amanda Tbk in 2020 has the lowest indication of financial statement fraud. While the maximum value of 0.900 owned by PT Diamond Citra Propertindo Tbk in 2020, which has the highest indication of financial statement fraud of other sample companies. the highest of other sample companies. Fraud in financial statements has a standard

deviation of 0.218. Since this is less than the median, we can assume that the data is normally distributed.

#### 4.1.2 Descriptive Statistical Analysis of Financial Target

Return on assets (ROA), the ratio of net income to total assets, is a useful metric for evaluating financial performance. The average level of a company's profit potential is depicted by an average financial target value of 2.865, according to the descriptive study. When compared to other companies in the sample, PT Agung Universal Sejahtera Tbk had the highest financial goal value in 2020, which amounted to 0.100. Of course, it states that it has the largest profit potential. As for the sample companies as a whole, PT Pakuwon Jati Tbk has the lowest value in 2020 of -0.996 which indicates the least potential to generate profits. The standard deviation value is 11,490.0. Since this number is greater than the median, it indicates that information about monetary objectives is distributed in an abnormal way.

#### 4.1.3 Descriptive Statistical Analysis of Financial Stability

Changes in total assets (GAN TI) are an indicator of good financial health. When viewed from the average value of the company's asset management, descriptive analysis produces an average value of -2,740.0. PT Puri Global Sukses Tbk in 2021 has the lowest financial stability value, which is 0.050, indicating that it has the lowest level of capability of all companies in 2021. When compared to the other businesses we looked at, PT Agung Semesta Sejahtera Tbk's 2020 score of 0.789 indicates that it has the least amount of competence. 14.182 is the standard deviation value. There seems to be a wide range of values here, as this value is above the median.

#### 4.1.4 Descriptive Statistical Analysis of External Pressure

Quantification of external pressure can be achieved through the use of leverage, specifically by assessing the ratio of total debt to total assets. The descriptive analysis results show that the average is 3.629. In 2021, PT Agung Semesta Sejahtera was identified as the company with the largest external pressure value, which amounted to 0.148. Meanwhile, the lowest value was found at PT Binakarya Jaya Abadi in 2021 at 0.100. The calculated value for standard deviation is 15.127. The observed values exceed the average, indicating a wider distribution and greater variability in the data. As a result, there are substantial differences between individual data points in the data set.

#### 4.1.5 Descriptive Statistical Analysis of Change in Director

Uses dummy variables to track the transformation of director variables. The mean value of the descriptive analysis is 0.628, meaning that business director changes account for 21 UOAs, or 60% of the total UOAs (code 1). Meanwhile, 14 units of analysis or 40% of the units of analysis did not have a company director turnover (code 0). The variability of the number of directors over time has a standard deviation of 0.485. Since this statistic is less than the mean, it shows that the data for the director variable almost never changes.

#### 4.1.6 Descriptive Statistical Analysis of Nature of Industry

Nature of industry measurement of company liquidity can be assessed by examining the accounts receivable presented in its financial statements. The results of the descriptive analysis show a mean value of -0.466 which shows the average value of the level of accounts receivable in the company. The company with the highest nature of industry

value is PT Natura City Development Tbk in 2021 amounting to 0.100. In contrast, PT Makmur Berkah Amanda Tbk's value of 0.000 in 2020 is by far the lowest of all companies analyzed. This means that the standard deviation is 0.501. There seems to be a wide range of values here, as this value is above the median.

#### 4.1.7 Descriptive Statistical Analysis of CEO Picture

To measure the CEO Picture variable using a dummy variable. Descriptive analysis yields an average value of 0.532, which translates into 20 units of analysis, or 5.7% of the total, occurring whenever the company's board of directors is changed (code 1). Meanwhile, 15 units of analysis or 4.3% of the units of analysis did not have a company director change (code 0). The variation in the director variable has a standard deviation of 0.500. A smaller standard deviation indicates a more uniformly distributed data set of the CEO Image variable.

#### 4.1.8 Descriptive Statistical Analysis of Political Connection

Use dummy variables in measuring this political affiliation factor. Descriptive statistics show an average of 0.485 for the political connection variable, which means that 15 of the total 121 analysis units (4.1%) have CEOs and/or boards of commissioners who are politically connected (code 1). Meanwhile, 20 analysis units or 5.9% of analysis units do not have CEOs and boards of commissioners who are not politically connected (code 0). As a measure of dispersion, political ties have a standard deviation of 0.502. Indicating an increasingly uneven distribution of data, this value is above average.

#### 4.1.9 Descriptive Statistical Analysis of Auditor Opinion

To measure this auditor opinion variable using a dummy variable. Descriptive statistics reveal an average value of 0.619 for the auditor opinion variable; this indicates that 25 out of 50 units of analysis (or 70%) have a clean audit (code 1). Meanwhile, 10 units of analysis or 30% of units of analysis do not have an unqualified opinion (code 0). The standard deviation value for the political connection variable is 0.487. Since this number is less than the average, the data is normally distributed.

#### 4.1.10 Descriptive Statistical Analysis of CEO Education

To measure this CEO Education variable through a dummy variable. The results of this descriptive statistical analysis show that the mean value of the CEO Education variable is 3.190, which means that 11 analysis units or 31.8% of analysis units have a bachelor's degree. Meanwhile, 24 analysis units or 68.2% of analysis units have s2 and s3 Education The standard deviation value for the CEO Education variable is 0.920. This statistic is less than the average, indicating that the data is spread evenly.

#### 4.1.11 Descriptive Statistical Analysis of Effective Monitoring

One indicator of Effective Monitoring is the proportion of board members who are impartial to all commissioners. The average value of 0.919 was found in the descriptive analysis or 9.2% of the average. the standard deviation is 0.390. Since this number is < the average, it certainly states that the data does not follow a normal distribution.

#### 4.2 T-test

The t-test is useful in assessing the potential significance of each independent variable in relation to the dependent variable. After comparing the t-statistic value and the t-table value, it is known that for a sample size of 35 analysis units (with degrees of freedom:  $N-1=35-1=34$ ), the t-table value obtained is 1.6909.

**Table 5.** T Test Results

Dependent Variable: M\_SCORE  
 Method: Panel Least Squares  
 Date: 07/19/23 Time: 19:16  
 Sample: 2020 2022  
 Periods included: 3  
 Cross-sections included: 35  
 Total panel (balanced) observations: 105

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.368551	0.113813	3.238227	0.0017
ROA	-0.002579	0.001900	-1.357296	0.1779
ACHANGE	0.002399	0.001444	1.661649	0.0999
LEV	-0.000235	0.001436	-0.163539	0.8704
DCHANGE	0.111203	0.043697	2.544859	0.0126
NOI	-0.042935	0.045611	-0.941332	0.3489
CEOPIC	0.058072	0.041734	1.391473	0.1674
COL	0.116956	0.041224	2.837107	0.0056
OA	0.030014	0.043310	0.693002	0.4900
CEOP	-0.037817	0.022756	-1.661853	0.0999
BDOU	-0.051116	0.052621	-0.971398	0.3338

  

R-squared	0.216786	Mean dependent var	0.342857
Adjusted R-squared	0.133465	S.D. dependent var	0.218763
S.E. of regression	0.203642	Akaike info criterion	-0.246053
Sum squared resid	3.898168	Schwarz criterion	0.031981
Log likelihood	23.91777	Hannan-Quinn criter.	-0.133388
F-statistic	2.601829	Durbin-Watson stat	1.667639
Prob(F-statistic)	0.007825		

Based on the table above, the hypothesis testing includes:

#### Hypothesis 1 Test Results (H1)

The regression analysis conducted on the relationship between financial plans and fraudulent financial statements resulted in a coefficient of -0.0025. The t-statistic value obtained is -1.3572, < the critical t value ( $-1.3572 < 1.6909$ ) at a one-sided significance level of 0.1779 (significant level > 0.05). It can be asserted that there is no visible impact of financial stability on the occurrence of misleading financial statements. Therefore, it can be stated that H1 is rejected

#### Hypothesis 2 Test Results (H2)

The t-test of the relationship between fiscal health and accounting fraud yields a regression coefficient of 0.0023 and a t-statistic of 1.6616 which is < the t-table value of 1.6616 by 0.0999 (sig > 0.05). Consequently, we can conclude that fiscal soundness affects the prevalence of false financial statements. Consequently, we can conclude that H2 is rejected.

#### Hypothesis 3 Test Results (H3)

The regression coefficient for the relationship between external pressure and financial statement fraud is -0.0002, and the t-statistic value is -0.1635 which is < the t-table value of -1.6909, with a one-sided significant level of 0.8704 (sig > 0.05). Therefore, external pressure has little effect on the falsification of financial statements. It can be concluded that H3 is rejected.

#### Hypothesis 4 Test Results (H4)

The regression analysis conducted on the relationship between auditor turnover and false financial statements produces a coefficient of 0.1112 and a t-statistic of 2.5448. It

should be noted that the t-statistic value of 2.5448 is less than the critical t-table value of 1.6909, which shows statistical significance. In addition, the one-way significance value of 0.0126 is greater than the previously planned significance level of 0.05, indicating that the observed relationship is not statistically significant. It can be asserted that the implementation of effective monitoring does not result in a visible impact on the occurrence of fraudulent financial reporting. Therefore, it can be concluded that H4 is accepted.

#### Hypothesis 5 (H5) Test Results

The regression analysis conducted on the relationship between industry type and the occurrence of fraudulent financial statements resulted in a regression coefficient of -0.0429. The corresponding t-statistic value is -0.9413, which is found to be  $<$  the critical t-table -1.6909 for tester one with a significant value of 0.05. Showing that there is no valid proof for H0 to be rejected, as the observed t-statistic falls within the region of non-rejection. It can be asserted that the nature of the industry does not have any effect on the occurrence of false financial statements. Therefore, it can be stated that H5 is rejected.

#### Hypothesis 6 Test Results (H6)

The results of the t test between CEO's pictures and fraudulent financial statements obtained the regression coefficient is 0.0580 and the t-static value is 1.3914 which is  $<$  t-table (1.3914  $<$  1.6909) with one tailed 0.1674 (sig  $>$  0.05). So that CEO's Pictures does not affect fraudulent financial statements. Therefore, H6 is rejected.

#### Hypothesis Test Results 7 (H7)

The findings of the T-test analysis testing the relationship between political connections and financial statement fraud show the regression coefficient is 0.1169 and the t-statistic is 2.8371. It should be noted that the t-statistic value obtained  $<$  the critical t-table value (2.8371  $<$  1.6909) for a one-sided test with a significance of 0.0056 (sig  $>$  0.05). It can be asserted that there is no visible impact of Political Connection on the occurrence of financial statement fraud. Therefore, it can be stated that H7 is accepted.

#### Hypothesis 8 Test Results (H8)

The regression coefficient obtained from the T-test conducted on the auditor's view of fraudulent financial statements is 0.0300. The corresponding t-statistic value is 0.6930, which is  $<$  the critical t-table value of 1.6909 for a one-sided test with a significance of 0.05. It can be asserted that auditor judgment has no impact on falsified financial statements. Therefore, it can be stated that H8 is rejected.

#### Hypothesis 9 Test Results (H9)

The regression analysis conducted on the relationship between CEO education and false financial statements resulted in a regression coefficient of -0.0378. The corresponding t-statistic value is -1.6618, which is found to be  $<$  the critical t-table value of -1.6909 for a one-sided test with a significance of 0.05. Consequently, the result is invalid in rejecting H0, as the p-value (0.0999) exceeds the planned significance level. There is no significant correlation between CEO education and the occurrence of misleading financial statements. Therefore, it can be stated that H9 is rejected.

#### Hypothesis 10 (H10) Test Results

The T-test findings for the analysis of effective supervision of financial statement fraud show the regression coefficient is -0.0511. The corresponding t-statistic value is -0.9713, which is found to be  $<$  the critical t-table value of -1.6909. This shows that there is no significant relationship between effective monitoring and financial statement fraud at a one-way significance level of 0.3338 ( $p >$  0.05). It can be asserted that the application of



effective monitoring does not produce a visible impact on the occurrence of fraudulent financial reporting. Therefore, it can be stated that H10 is rejected.

## 5. Conclusion

Financial Target assessed from the return on assets (ROA) ratio in the fake financial statements in the property and real estate industry from the IDX data for the 2020-2022 period is not significant. The lack of evidence of dishonest financial reporting can be concluded from the company's ability to meet its financial targets, as indicated by a significance value of 0.1779 which exceeds the threshold of 0.05. There is no statistical significance of the relationship between Financial Stability as indicated by changes in total assets (ACHANGE) with the occurrence of fraudulent financial statements in the property and real estate sector from IDX data for the period 2020-2022. The lack of evidence of fraudulent financial reporting is supported by statistical analysis, which reveals a significance value of 0.0999, beyond the generally accepted threshold of 0.05. Surely demonstrating the company's capacity to achieve financial stability is not an indication of dishonest practices. There is no statistical significance of the relationship between External Pressure as indicated by the percentage of debt to total assets, and the occurrence of fraudulent financial statements in the property and real estate sector listed on the IDX during the 2020-2022 period. The lack of significance in the company's ability to withstand external pressure invalidates the occurrence of fraudulent financial statements, as indicated by a p-value of 0.8704, which is more than the generally accepted threshold of 0.05. Measurement of dummy variables on the occurrence of Change in director has a significant effect on fraudulent financial statements. Which is due to the change because the change of director in the organization is an important part, because it plays an important and strategic role in increasing the committed ranks in the company's organization. The impact of Nature of Industry, especially the utilization of accounts receivable in the company's financial statements, has no statistical significance on cases of fraudulent financial statements in the property and real estate sector listed on the IDX during the 2020-2022 period. This can be seen from the calculated significance value of 0.3489 which exceeds the predetermined threshold of 0.05. The inclusion of a dummy variable representing CEO Picture does not have a statistically significant impact on the occurrence of falsification of financial statements. The presence or absence of a CEO photo in a financial report has no impact on the misleading of financial statements in a company. The effect of Political connection on the occurrence of financial statement falsification among companies listed on the IDX during the 2020-2022 period is noteworthy. Ownership of the company's political ties causes management to exploit their position for personal or collective gain through the act of false financial statements. Audit Opinion Listed companies operating in the infrastructure sector may be significantly impacted by falsified financial statements on the IDX in 2020-2022. This is evidenced by the value ( $\text{sig} < 0.05$ ), which is  $0.4900 < 0.05$ .

CEO Education The use of dummy variables, when used as a measurement tool, does not produce statistically significant results in relation to the occurrence of fraudulent financial statements in organizations in the property and real estate sector. The impact of Effective monitoring as indicated by the ratio of independent commissioners to the number of commissioners on the incidence of financial statement fraud in property and real estate companies listed on the IDX for the 2020-2022 period is not significant. The absence of a correlation between company size and the number of independent commissioners is due to this phenomenon.

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