

# THE EFFECT OF FRAUD HEXAGON ON FINANCIAL STATEMENT FRAUD IN PROPERTY AND REAL ESTATE SECTOR COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE (IDX) IN 2017-2021

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**Abstract:** This research aims to determine the effect of hexagon fraud proxied by external pressure, change in directors, political connections, nature of industry, change in auditors and frequent number of CEO picture on financial statement fraud. This research uses quantitative research methods. The sample in this study was selected using a purposive sampling technique which obtained 13 property and real estate sector companies listed on the Indonesia Stock Exchange in 2017-2021 with a total sample of 65. Data collection techniques in this study using documentation techniques and library research. The data collected is the company's financial reports and annual reports. Data analysis technique used logistic regression analysis with Eviews 12 software. The results showed that external pressure, nature of industry and change in auditors had an effect on financial statement fraud, while changes in directors, political connections, and frequent number of CEO picture had no effect on financial statement fraud.

**Keywords:** fraud, financial statement fraud, fraud hexagon, Beneish M-Score

**Abstrak:** Penelitian ini bertujuan untuk mengetahui pengaruh fraud hexagon yang diprosikan dengan external pressure, change in director, political connection, nature of industry, change in auditor dan frequent number of CEO picture terhadap financial statement fraud. Penelitian ini menggunakan metode penelitian kuantitatif. Sampel dalam penelitian ini dipilih dengan menggunakan teknik purposive sampling yang diperoleh sebanyak 13 perusahaan sektor property dan real estate yang terdaftar di Bursa Efek Indonesia tahun 2017-2021 dengan total sampel sebanyak 65. Teknik pengumpulan data dalam penelitian ini menggunakan teknik dokumentasi dan penelitian kepustakaan. Data yang dikumpulkan adalah laporan keuangan dan laporan tahunan perusahaan. Teknik analisis data menggunakan analisis regresi logistik dengan software Eviews 12. Hasil penelitian menunjukkan bahwa external pressure, nature of industry dan change in auditor berpengaruh terhadap financial statement fraud, sedangkan change in director, political connection, dan frequent number of CEO picture tidak berpengaruh terhadap financial statement fraud.

**Kata Kunci:** fraud, financial statement fraud, fraud hexagon, Beneish M-Score

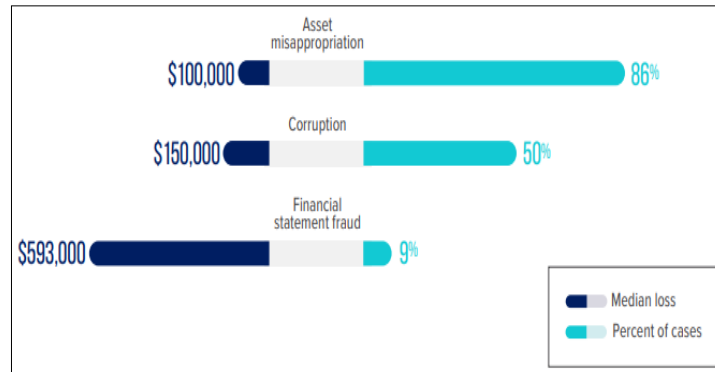
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## INTRODUCTION

Financial statements are the result (output) of the accounting process made by the company's management. The financial reports contain information about the company's financial condition, performance and operational activities in a certain period which are intended for users of financial statements. Therefore, financial reports must be presented in a relevant, reliable, free from fraud, and full of integrity. However, some company management still commit fraud so that financial reports can provide a good and stable company financial condition (Siregar and Surianti, 2022).

At the time of issuance of financial statements, companies have an obligation to submit convincing financial reports because they affect the decision-making process for interested parties. This is what drives and motivates the management to present the company's financial condition in good condition. In fact, the company's financial condition is not always good, there are times when the company's financial condition is unstable. The existence of this encouragement, forcing the management to present the company's financial condition is always good in a way that is not honest and is not relevant to manipulating material values in financial statements. This event is one of the things that can trigger acts of fraud (Izza, 2021).

According to the Association of Certified Fraud Examiners (ACFE), which is the largest anti-fraud organization in the world, there are three main categories of fraud contained in the fraud tree, namely corruption, asset misappropriation, and financial statement fraud. ACFE regularly conducts research on fraud cases that occur in all countries which are published in the Report to The Nations (RTTN) on Occupational Fraud.



**Figure 1.** Fraud Categories

Based on Report to The Nations (2022), the biggest loss was found in financial statement fraud with 9% of cases causing an average loss of \$593,000 compared to the other two types of cases, namely 86% of cases of asset misappropriation with an average loss of \$100,000 and 50% corruption cases with an average loss of \$150,000. In the report, ACFE also mentions industries that are victims of fraud. Real estate is the industry with the highest average loss due to fraud, amounting to \$435,000 (ACFE, 2022).

The phenomenon of financial statement fraud cases is common, both in the world and in Indonesia. A popular case that has shocked the world regarding financial statement fraud is the Enron case which occurred in the 2000s. Enron collaborated with the Arthur Andersen Public Accounting Firm which audited its financial statements. Enron managed to manipulate profits of USD 600 million which caused losses to investors and other parties, resulting in the Enron

company going bankrupt. Likewise, Toshiba Corporation has overstated company profits of USD 1.2 billion for several years (Indriani and Rohman, 2022).

Meanwhile, cases of financial statement fraud in Indonesia occurred in the property and real estate sector, namely PT Hanson Internasional Tbk. The 2016 financial report manipulation case belonging to PT Hanson Internasional Tbk it only opened in 2019 when the PT Jiwasraya case emerged. Manipulation carried out by PT Hanson Internasional Tbk, which is related to the accounting presentation of income on the sale of ready-to-build plots made the income recorded in the financial statements that year overstated with a material value of IDR 613 billion.

Since the disclosure of the problems of these fraud cases, the financial reports have experienced a decrease in reliability in the public eye. Basically, financial reports reflect information on the company's financial condition. The information is expected to help users in terms of decision making. Financial reports that contain elements of fraud or manipulation will mislead the public who use these financial reports as a basis for decision making (Kartikasari and Irianto, 2010).

This study uses the fraud hexagon theory approach which consists of stimulus (pressure), capability, collusion, opportunity, rationalization, and ego (arrogance) in detecting financial statement fraud and is measured by the formula put forward by a professor at the Kelley School of Business, Indiana University, Messod D. Beneish (Beneish, 1999). The variable elements of fraud risk cannot be measured directly (Sihombing et al., 2014). Therefore, the measurement is carried out through variable proxies. Research related to financial statement fraud has been widely studied in previous studies using the variable external pressure (Ginting, 2020), change in director (Melisa, 2022), political connection (Kusumosari, 2020), nature of industry (Sari and Witosari, 2022), change in auditor (Aviantara, 2021) and frequent number of CEO pictures (Aprilia, 2017).

This study aims to determine the effect of fraud hexagon proxied by external pressure, change in director, political connection, nature of industry, change in auditor and frequent number of CEO pictures on financial statement fraud. It is important that this research is carried out so that financial statement fraud can be detected as early as possible so that the potential for financial statement fraud can be avoided and does not cause harm to many parties.

## **LITERATURE REVIEW**

### **Financial Statement Fraud**

Fraud is an act (in terms of crime, namely a prohibited act) designed to deceive one or several people resulting in the victim suffering a loss and/or the perpetrator gaining profit (Tuanakotta, 2019:240). The Association of Certified Fraud Examiners (ACFE) categorizes fraud into three main branches which have more specific branches known as the "fraud tree". ACFE classifies fraud into three main branches which consist of corruption, asset misappropriation, and financial statement fraud. Financial Statement Fraud is the type of fraud is well known to auditors who conduct general audits (opinion audits). Financial statement fraud is divided into two forms, namely financial and non-financial. Fraud in the preparation of financial statements is fraud in the form of misstatements, both overstatements and understatements. Meanwhile, fraud in compiling non-financial reports is in the form of

submitting non-financial reports in a misleading manner, which is better than the actual situation and is often falsification or twisting the situation. It can be listed in documents used for internal and external purposes (Tuanakotta, 2016:203). According to the Indonesian Institute of Accountants (IAI) (in Andriani, 2019), financial statement fraud described in section 316 of the Public Accountant Professional Standards (SPAP) states that: (a) Misstatements arising from disclosure of financial statement fraud, namely intentional misstatements or omissions of amounts or disclosures in financial statements to deceive users of financial statements, (b) Misstatements arising from improper treatment.

Financial statement fraud measured by Beneish (1999) developed the Beneish M-Score Model, which is a calculation used to detect manipulation or fraud of financial reports. The calculation consists of: (1) Days Sales in Receivables Index (DSRI); (2) Gross Margin Index (GMI); (3) Asset Quality Index (AQI); (4) Sales Growth Index (SGI); (5) Depreciation Index (DEPI); (6) Sales General and Administrative Expenses Index (SGAI); (7) Leverage Index (LVGI); and (8) Total Accruals to Total Assets (TATA). By using these variables, Beneish was able to identify that 76% of the sample companies manipulated their financial statements. According to research conducted by Safitri and Sari (2018), the Beneish M-Score Model can ensure immediate detection of reports manipulation actions through potential financial report fraud carried out before public announcements by stock exchange authorities and to narrow disclosure gaps (Hernanda, 2022).

### **Fraud Hexagon Theory**

The fraud hexagon is the result of the development of the fraud triangle, fraud diamond, and fraud pentagon theories put forward by Georgios L. Vousinas in 2019. The development of fraud theory began with the fraud triangle theory put forward by Cressey Donald in 1953 in his research entitled "Other People's Money: A Study in the Social Psychology of Embezzlement". The research explained that there are three factors in fraud situations, namely pressure, opportunity, and rationalization. Furthermore, the fraud triangle theory was developed by D. T. Wolfe & Hermanson in 2004 to become the fraud diamond theory. Fraud diamond theory perfects the fraud triangle theory by adding one factor that can influence fraud, namely capability. Theory continued to develop until the fraud pentagon theory was proposed by Crowe in 2011 by adding one factor from the previous theory, namely arrogance. This theory consists of five factors. The latest theory regarding fraud is refined into the fraud hexagon theory put forward by Georgios L. Vousinas in 2019. Fraud hexagon is often referred to as S.C.C.O.R.E. The model consists of six factors, namely stimulus, capability, collusion, opportunity, rationalization, and ego.

**Figure 2.** Fraud Hexagon

In the fraud hexagon theory, stimulus is a condition that pressures someone to commit fraud. There are various forms of pressure, such as pressure to achieve high targets, so it is necessary to report better results, especially during times of crisis. During this crisis, the potential for committing acts of fraud will be higher due to an economic recession and company pressure so that its business objectives can still be fulfilled (Vousinas, 2019). Capability is a trait or ability of a person who has the intention or desire to commit fraud. Capability refers to the traits and abilities of a person who plays a major role in fraud. This is caused by pressure, opportunity, and rationalization. Opportunities open doors, while pressure and rationalization pull potential fraud actors toward an open door (opportunity). In addition, actors also need the ability to pass open opportunities. Financial statement fraud will not occur if it is not carried out by people who have the right capabilities which can lead to fraudulent acts (Vousinas, 2019).

Collusion is an agreement between two or more parties that deceives the other party, so that one party acts against another party for an evil purpose, such as to seize the rights of a third party (Vousinas, 2019). According to Venter (2007) in Vousinas (2019), parties involved in collusion can be employees within an organization, a group of individuals spanning several organizations and jurisdictions or members of a dedicated criminal organization or collective. Opportunity is a situation or there are loopholes and opportunities that the perpetrator believes that his fraudulent actions will not be detected. Opportunities for committing fraud can occur because of weak internal controls owned by a company. The higher the position and authority of a person in the company, the greater the opportunity to commit fraud because they have the power and ability to manage circumstances (Vousinas, 2019). Rationalization is an act of justification for all mistakes in fraud and fraud committed. The perpetrators of fraud will feel that they are ordinary people who are honest and do not feel guilty, and they will also provide reasons to defend their actions so that they can be accepted to cover up the fraud committed (Vousinas, 2019). The last, ego is an attitude that encourages someone to achieve something they want regardless of the method used (Vousinas, 2019). In addition, arrogance is an attitude of arrogance of a person who believes himself to be able to commit acts of fraud. There is arrogance because management has a big and prominent selfish nature.

## External Pressure

External pressure is a condition that is felt by management who feels pressured due to pressure from outside, namely a condition in which the company can obtain loans from external parties and is able to fulfill these obligations (Mardianto and Tiono, 2019). The pressure in this study uses the external pressure factor. External pressure can be used as a proxy for stimulus because there is high external pressure faced by management so that it can encourage the emergence of potential fraud. To deal with these pressures, management must seek debt as an external source of funds so that the company can continue to run. The potential for fraud arises when the company has a lot of debt. External pressure is measured by the leverage ratio, namely by comparing total liabilities with total assets (Ginting, 2020). This ratio is used to assess a company's ability to repay loans. If a company has a high ratio, it indicates that the company has a large debt so that the credit risk owned by the company is also high (Imtikhani and Sukirman, 2021). This makes creditors hesitate and worry about giving loans to companies so that management tries to make creditors believe that they can repay loans by committing financial statement fraud.

**H<sub>1</sub> : External Pressure has an effect on Financial Statement Fraud.**

### **Change in Director**

Change in director is a change or transfer of duties and authority from the old directors to new directors in a company. A change of directors in a company can cause the company's performance to decline, giving rise to stress management which can trigger the potential for financial statement fraud (Melisa, 2022). The proxy for capability in this study is the change in director factor. Substitution of directors can be an effort to improve the performance of the previous directors by changing the composition of the directors or recruiting new directors who are considered more competent (Imtikhani and Sukirman, 2021). However, the change of directors does not always have a good impact on the company. Change of directors can cause a stress period which can increase the potential for fraud (Wolfe and Hermanson, 2004) so that a change of directors may be an attempt to remove traces by trying to get rid of directors who are believed to know about fraud occurring in the company.

**H<sub>2</sub> : Change in Director has an effect on Financial Statement Fraud.**

### **Political Connection**

Political connection is a relationship owned by a company that can help in getting what it wants. Collusion in this study uses the factor of political connection. This political connection can be beneficial and make it easier for companies to deal with third parties outside the company. The management of companies that have political connections can obtain convenience and a special relationship which causes a decrease in oversight within the company so that this will be used by management as the manager of the company to place more importance on their interests than the interests of shareholders (Melisa, 2022). Companies with president commissioners and/or independent commissioners who have political connections can trigger management to run the company arbitrarily. This is because management feels that the company has a special relationship with politicians which makes the company more flexible in complying with existing regulations and makes it easier to carry out company operations. This special relationship can be exploited by management to commit financial statement fraud

that are useful for fulfilling personal interests, namely obtaining the maximum personal profit without having to spend more effort in running the company's operations, as well as being useful for deceiving shareholders by giving hope that the company operates in an efficient manner which can provide a high rate of return on investment. Therefore, companies that have political connections can indicate that they have a greater potential for financial statement fraud (Kusumosari, 2020).

### **H<sub>3</sub> : Political Connection has an effect on Financial Statement Fraud.**

#### **Nature of Industry**

The nature of the industry describes an ideal condition that a company wants to achieve when carrying out its processes in a particular industry. The company's ideal conditions can also be influenced by the economic environment and industrial growth that occur around the entity carrying out its operational activities (Hadi et al., 2021). Opportunity in this study uses the nature of industry factor. Fraud can occur if the company's conditions are supportive, such as weak internal controls on an account. One of them is controlling the nature of the industry, which includes receivables and sales. The condition of accounts receivable in a company is a form of one of the natures of industry (Himawan and Wijanarti, 2020). Receivables are one of the assets with a high probability of being manipulated. According to Skousen, et al. (2009), a company can be said to be good if the company can reduce and reduce the amount of company receivables and is able to increase the receipt of a company's cash flow. Limited cash due to the large number of receivables can be an impetus for management to manipulate financial reports (Sari and Witosari, 2022).

### **H<sub>4</sub> : Nature of Industry has an effect on Financial Statement Fraud**

#### **Change in Auditor**

Auditor change is a change or transfer of duties and authority of the old auditor to the new auditor. For management, this is an act of rationalization when committing financial statement fraud because they do not feel guilty for the fraudulent actions they have committed or when planning to commit fraud (Melisa, 2022). The rationalization in this study uses the change in auditor factor. The effect of changing auditors within the company can be an indication of the occurrence of fraud. The old auditor may be better able to detect all possible fraud committed by management, either directly or indirectly. However, with a change of auditors, the possibility of fraud will increase (SAS No. 99 in AICPA, 2002). The change of auditors by the company can be assessed as an effort to eliminate fraud trails found by previous auditors. The change of auditors by the company can be assessed as an effort to eliminate fraud trails found by previous auditors. Several studies state that the incidence of audit failure increases when there is a change of auditors within the company (Skousen et al., 2009). This can be used by management to reduce the detection of fraud. Not only that, changing auditors provides a transition period that can be used by management to commit fraud (Aviantara, 2021).

### **H<sub>5</sub> : Change in Auditor has an effect on Financial Statement Fraud**

#### **Frequent Number of CEO Pictures**

The frequent Number of CEO's Pictures is the number of photos displayed in a company's financial statements. Ego in this study uses the frequent number of CEO pictures factor. Ego is

the arrogant or haughty nature of someone who commits an act of fraud. The Committee of Sponsoring Organizations of the Treadway Commission (COSO) conducted a study which showed that 70% of fraudulent acts had a profile that combined pressure and arrogance and 89% of the fraud cases involved were CEOs (Horwarth, 2011). The level of arrogance or superiority possessed by the CEO can be represented by the large number of CEO photos appearing in the company's annual report. It is assumed that the more photos of the CEO in the company's annual report indicate the high arrogance of a CEO in a company (Aprilia, 2017). The high attitude of arrogance can lead to the possibility of fraud due to the arrogance and superiority possessed by the CEO so that he feels that every internal control does not apply to him because of his status and position.

#### **H<sub>6</sub> : Frequent Number of CEO Picture has an effect on Financial Statement Fraud**

### **RESEARCH METHODOLOGY**

#### **Population and Sample**

The object of this study is based on the identification and formulation of predetermined problems, namely financial statement fraud, external pressure, change in director, political connection, nature of industry, change in auditor, and frequent number of CEO pictures in the property and real estate sector listed on the Indonesia Stock Exchange (IDX). Furthermore, this study uses a period with an annual system, namely 2017 to 2021. The data used in this study were obtained through the IDX's official website, namely [www.idx.co.id](http://www.idx.co.id) and the official website of each company. The sample used a purposive sampling method, namely selecting a sample based on criteria (1) property and real estate sector companies listed on the Indonesia Stock Exchange (IDX) for 2017-2021; (2) Companies in the property and real estate sector that continuously report their financial reports and annual reports on the IDX website or company website from 2017-2021; (3) Companies in the property and real estate sector that did not suffer losses during 2017-2021; (4) Companies in the property and real estate sector issuing financial reports in rupiah currency; (5) Companies in the property and real estate sector whose financial reports and annual reports present complete data according to the variables to be studied.

#### **Variable Measurement**

The variables used in this research are the dependent variable and the independent variable.

**Table 1.** Definition and Measurement of Variables

<b>Variable</b>	<b>Definition</b>	<b>Formulation</b>	<b>Measurement Scale</b>
<b>Dependent</b>			
Financial Statement Fraud	Financial statement fraud is a material misstatement in the form of understatement	<b>Beneish M-Score</b> a. $DSRI = \frac{\left(\frac{Receivables_t}{Sales_t}\right)}{\left(\frac{Receivables_{t-1}}{Sales_{t-1}}\right)}$ b. $GMI = \frac{\left(\frac{Sales_{t-1} - Cost\ of\ Goods\ Sold_{t-1}}{Sales_{t-1}}\right)}{\left(\frac{Sales_t - Cost\ of\ Goods\ Sold_t}{Sales_t}\right)}$	Nominal



	<p>nt or overstatement in financial statements that is done intentionally to achieve a certain goal.</p>	<p>c. <math>AQI = \frac{1 - \frac{(Current\ Asset_t + PPE_t)}{Total\ Asset_t}}{1 - \frac{(Current\ Asset_{t-1} + PPE_{t-1})}{Total\ Asset_{t-1}}}</math></p> <p>d. <math>SGI = \frac{Sales_t}{Sales_{t-1}}</math></p> <p>e. <math>DEPI = \frac{\left(\frac{Depreciation_{t-1}}{Depreciation_{t-1} + PPE_{t-1}}\right)}{\left(\frac{Depreciation_t}{Depreciation_t + PPE_t}\right)}</math></p> <p>f. <math>SGAI = \frac{\left(\frac{Sales, General, and Administrative\ Expense_t}{Sales_t}\right)}{\left(\frac{Sales, General and Administrative\ Expense_{t-1}}{Sales_{t-1}}\right)}</math></p> <p>g. <math>LVGI = \frac{\left(\frac{Long\ Term\ Debt_t + Current\ Liability_t}{Total\ Asset_t}\right)}{\left(\frac{Long\ Term\ Debt_{t-1} + Current\ Liability_{t-1}}{Total\ Asset_{t-1}}\right)}</math></p> <p>h. <math>TATA = \frac{(Income\ from\ Operation_t - Cashflow\ from\ Oper)}{Total\ Asset_t}</math></p> <p>M SCORE = -4,84 + 0,920DSRI          + 0,528GMI + 0,404AQI          + 0,892SGI + 0,115DEPI          - 0,172SGAI + 4,679TATA          - 0,327LVGI</p> <p>Code 1, if the company commits fraud with an M-Score &gt; -2.22.</p> <p>Code 0, if the company does not commit fraud with an M-Score &lt; -2.22.          (Hernanda, 2022)</p>	
<b>Independent</b>			
<p>External Pressure</p>	<p>External pressure is pressure felt by management to meet external financing sources in the form of capital and debt from external parties. External pressure can be measured using a leverage ratio of the Debt to</p>	<p><math>DAR = \frac{Total\ Debt}{Total\ Asset}</math>          (Ginting, 2020)</p>	<p>Ratio</p>

	Assets Ratio (DAR) type.		
Change in Director	Substitution of directors is a change or transfer of duties and authority of the old directors to new directors in a company.	Code 1, if there is a change of directors in the company during the 2017-2021 period. Code 0, if there is no change of directors in the company during the 2017-2021 period. (Melisa, 2022)	Nominal
Political Connection	Political connection is a relationship owned by a company that can help in getting what it wants.	Code 1, if a company with a president commissioner and/or independent commissioner has political connections during the 2017-2021 period. Code 0, if a company with a president commissioner and/or independent commissioner has no political connections during the 2017-2021 period. (Kusumosari, 2020)	Nominal
Nature of Industry	The nature of industry describes an ideal condition that a company wants to achieve when carrying out its processes in a particular industry.	$NOI = \frac{\text{Receivables}_t}{\text{Sales}_t} - \frac{\text{Receivables}_{t-1}}{\text{Sales}_{t-1}}$ (Sari and Witosari, 2022)	Ratio
Change in Auditor	Auditor change is a change or transfer of duties and authority of the old auditor to the new auditor.	Code 1, if the company changes auditors during the 2017-2021 period. Code 0, if the company does not change auditors during the 2017-2021 period. (Aviantara, 2021)	Nominal
Frequent Number of CEO Pictures	The frequent Number of CEO's Pictures is	The number of CEO photos that appear in the company's annual report for the period 2017-2021. (Aprilia, 2017)	Ratio

	the number of photos displayed in a company's financial statements.		
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### Data Analysis Technique

Data analysis used in this study used logistic regression analysis using the Eviews 12 program to test the research hypothesis. The logistic regression analysis technique no longer requires normality tests and classical assumption tests on the independent variables (Ghozali, 2011: 333). However, for the multicollinearity test because it only involves independent variables, logistic regression still requires the test to be carried out. Logistic regression analysis in this study uses an equation with six independent variables which can be stated as follows:

$$FSF = \alpha + \beta_1 DAR + \beta_2 DCHANGE + \beta_3 PLC + \beta_4 NOI + \beta_5 AUDCHANGE + \beta_6 CEOPIC + \varepsilon$$

### Information :

FSF	= Financial Statement Fraud
$\alpha$	= Constant
$\beta_{1,2,3,4,5,6}$	= Regression Coefficient
DAR	= External Pressure
DCHANGE	= Change in Director
PLC	= Political Connection
NOI	= Nature of Industry
AUDCHANGE	= Change in Auditor
CEOPIC	= Frequent Number of CEO Picture
$\varepsilon$	= Error

## RESULT AND DISCUSSION

### Research Samples

The research objects used in this study are property and real estate sector companies listed on the Indonesia Stock Exchange (IDX) for the 2017-2021 research period. The data used in this study were obtained through the IDX's official website, namely [www.idx.co.id](http://www.idx.co.id) and the official website of each company. The sample uses a purposive sampling method, namely the selection of samples based on the required criteria. The sample selection process was carried out with the criteria obtained by 13 companies that were used as samples with a five-year observation period so that the total was as many as 65 data samples.

### Multicollinearity Test

The multicollinearity test aims to determine whether or not there is a correlation between the independent variables in this regression.

**Table 2.** Multicollinearity Test Results

	DAR	DCHANGE	PLC	NOI	AUDCHANGE	CEOPIC
DAR	1.000000	0.270507	0.089141	0.217493	0.122400	0.381923
DCHANGE	0.270507	1.000000	0.053098	0.311755	0.034544	0.058164
PLC	0.089141	0.053098	1.000000	0.046722	-0.059906	0.111166
NOI	0.217493	0.311755	0.046722	1.000000	0.049636	0.032190
AUDCHANGE	0.122400	0.034544	-0.059906	0.049636	1.000000	-0.013238
CEOPIC	0.381923	0.058164	0.111166	0.032190	-0.013238	1.000000

Based on testing the correlation coefficient values above, each variable has a coefficient value of less than 0.8, so it can be concluded that the model does not experience multicollinearity problems.

### Hosmer and Lemeshow's Goodness of Fit Test

This test is used to test the suitability of empirical data with the applied research model.

**Table 3.** Hosmer and Lemeshow's Goodness of Fit Test Result

	Quantile of Risk		Actual	Dep=0		Dep=1		Total Obs	H-L Value
	Low	High		Expect	Actual	Expect	Actual		
1	9.E-18	0.0116	6	5.98561	0	0.01439	6	0.01442	
2	0.0158	0.0349	7	6.82713	0	0.17287	7	0.17725	
3	0.0426	0.0579	5	5.71069	1	0.28931	6	1.83426	
4	0.0693	0.1660	7	6.10736	0	0.89264	7	1.02311	
5	0.2006	0.2345	4	4.66245	2	1.33755	6	0.42221	
6	0.2524	0.4085	4	4.74767	3	2.25233	7	0.36593	
7	0.4153	0.5751	5	2.92854	1	3.07146	6	2.86227	
8	0.6012	0.7473	1	2.07471	6	4.92529	7	0.79121	
9	0.8220	0.9018	1	0.80429	5	5.19571	6	0.05500	
10	0.9020	1.0000	0	0.15156	7	6.84844	7	0.15491	
	Total		40	40.0000	25	25.0000	65	7.70057	
<b>H-L Statistic</b>			<b>7.7006</b>			<b>Prob. Chi-Sq(8)</b>	<b>0.4633</b>		
Andrews Statistic			21.6256			Prob. Chi-Sq(10)	0.0171		

Based on the test, the value of the H-L statistic is 7.7006 with a significance probability of 0.4633. With a probability value of 0.4633, which is greater than 0.05, it indicates that the model is able to predict the observed values in the study, or it can be said that the model is acceptable because it matches the observation data.

### Expectation-Prediction Evaluation Test

This test is used to determine the estimated value of the correct and incorrect percentage of the dependent variable or it can be said to show the level of match percentage of cases that are classified correctly and cases that are classified incorrectly.

**Table 4.** Expectation-Prediction Evaluation Test Result

	Estimated Equation			Constant Probability		
	Dep=0	Dep=1	Total	Dep=0	Dep=1	Total
P(Dep=1)≤C	34	7	41	40	25	65

P(Dep=1)>C	6	18	24	0	0	0
Total	40	25	65	40	25	65
Correct	34	18	52	40	0	40
% Correct	85.00	72.00	<b>80.00</b>	100.00	0.00	61.54
% Incorrect	15.00	28.00	20.00	0.00	100.00	38.46
Total Gain*	-15.00	72.00	18.46			
Percent Gain**	NA	72.00	48.00			

Based on the test results, in the estimated equation column it is known that the total results from the percentage value of correct prediction accuracy are obtained by 80%, which means that the percentage of accuracy of the model in predicting financial statement fraud in this study is 80%.

### McFadden R-Squared Test

McFadden R-Squared is used to measure the ability of existing models to explain the dependent variable.

**Table 5 : McFadden R-Squared Test Result**

<b>McFadden R-squared</b>	<b>0.458432</b>	Mean dependent var	0.384615
S.D. dependent var	0.490290	S.E. of regression	0.362363
Akaike info criterion	0.937055	Sum squared resid	7.615788
Schwarz criterion	1.171220	Log likelihood	-23.45429
Hannan-Quinn criter.	1.029448	Deviance	46.90857
Restr. deviance	86.61620	Restr. log likelihood	-43.30810
LR statistic	39.70762	Avg. log likelihood	-0.360835
Prob(LR statistic)	0.000001		
Obs with Dep=0	40	Total obs	65
Obs with Dep=1	25		

Based on the test results, it was shown that the McFadden R-Squared value was 0.458432. This can be interpreted if the dependent variable, namely financial statement fraud, can be influenced by independent variables (external pressure, change in director, political connection, nature of industry, change in auditor, and frequent number of CEO pictures), which is equal to 45.84% and the remaining 54.16% is influenced by other variables outside this research model.

### Logistic Regression Analysis

Logistic Regression Analysis is used to determine the relationship that occurs between the dependent variable and the independent variable.

**Table 6. Logistic Regression Analysis Result**

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-2.333195	1.298547	-1.796773	0.0724
DAR	5.801294	2.820459	2.056862	0.0397
DCHANGE	2.176114	1.703853	1.277173	0.2015

PLC	-0.684443	0.748346	-0.914608	0.3604
NOI	34.05498	9.720998	3.503239	0.0005
AUDCHANGE	2.070341	0.808589	2.560438	0.0105
CEOPIC	-0.418737	0.264903	-1.580717	0.1139

### Likelihood Ratio Test

The likelihood ratio (LR) statistical test was conducted to test whether all independent variables simultaneously affect the dependent variable.

**Table 8.** Likelihood Ratio Test Result

McFadden R-squared	0.458432	Mean dependent var	0.384615
S.D. dependent var	0.490290	S.E. of regression	0.362363
Akaike info criterion	0.937055	Sum squared resid	7.615788
Schwarz criterion	1.171220	Log likelihood	-23.45429
Hannan-Quinn criter.	1.029448	Deviance	46.90857
Restr. deviance	86.61620	Restr. log likelihood	-43.30810
<b>LR statistic</b>	<b>39.70762</b>	Avg. log likelihood	-0.360835
<b>Prob(LR statistic)</b>	<b>0.000001</b>		
Obs with Dep=0	40	Total obs	65
Obs with Dep=1	25		

Based on the test results, the statistical LR or chi-square calculated value was 39.70762, while the chi-square value of table df 6,  $\alpha = 0.05$  was 12.5916. Statistical LR value or calculated chi-square is  $39.70762 >$  table chi-square value is 12.5916. In addition, it can be seen that the LR test compares the Prob (LR statistic) to  $\alpha$ , the Prob (LR statistic) value is  $0.000001 < 0.05$ , so the decision is to reject  $H_0$  and accept  $H_1$  which means all independent variables simultaneously or together affect the dependent variable.

### Statistical Z Test

The Z test was conducted to determine whether the independent variables partially affect the dependent variable. The Z test is carried out by comparing the value of probability to  $\alpha$ , if probability  $< \alpha$ , then  $H_0$  is rejected, which means that the independent variable affects the dependent variable, whereas if probability  $> \alpha$ , then  $H_0$  is accepted, which means that the independent variable does not affect the dependent variable. The recapitulation of the results of the hypothesis testing analysis in this study is presented in the following table:

**Table 7.** Recapitulation of Hypothesis Test Results

Num.	Hypothesis	Coefficient	Prob.	Conclusion
1	External Pressure has an effect on Financial Statement Fraud	5,801294	0,0397	$H_1$ Accepted
2	Change in Director has an effect on Financial Statement Fraud	2,176114	0,2015	$H_2$ Rejected
3	Political Connection has an effect on Financial Statement Fraud	-0,684443	0,3604	$H_3$ Rejected
4	Nature of Industry has an effect on Financial Statement Fraud	34,05498	0,0005	$H_4$ Accepted
5	Change in Auditor has an effect on Financial Statement Fraud	2,070341	0,0105	$H_5$ Accepted
6	Frequent Number of CEO Picture has an effect on Financial Statement Fraud	-0,418737	0,1139	$H_6$ Rejected

### **Effect of External Pressure on Financial Statement Fraud**

Based on the results of testing the external pressure variable on financial statement fraud, a probability value of  $0.0397 < 0.05$  is obtained with a coefficient value of 5.801294. This shows that the stimulus (pressure) which is proxied by the external pressure variable and is measured using the leverage ratio, namely the debt to asset ratio, has an effect on financial statement fraud. That is, the higher the value of the leverage ratio owned by a company indicates that the company has a large debt so that the credit risk owned by the company is also high. This will certainly be a great pressure for the company to maintain the good name of the company in the eyes of investors and creditors.

The results of this study are in line with the research of Melisa (2022), Sari and Witosari (2022), Imtikhani and Sukirman (2021) which proves that external pressure has an effect on financial statement fraud. High external pressure faced by management can encourage the emergence of potential fraud or fraud. A high debt value also has a high credit risk so that this can be a note and consideration for investors and creditors to provide loans to the company. This will make the company's management do whatever it takes to attract investors and creditors to enter into cooperative relations with the company. Management seeks to make creditors believe that they are able to repay loans by committing fraud or fraud against financial reports.

### **Effect of Change in Director on Financial Statement Fraud**

Based on the results of testing the change in director variable on financial statement fraud, a probability value of  $0.2015 > 0.05$  is obtained with a coefficient value of 2.176114. This shows that the capability proxied by the change in director variable has no effect on financial statement fraud.

The results of this study are in line with the research of Melisa (2022), Novarina and Triyanto (2022), Imtikhani and Sukirman (2021) which proves that change in directors has no effect on financial statement fraud. Substitution of directors may indicate management's efforts to get rid of the previous directors who are considered aware of the fraud that has been committed. However, the change of directors that occurs within the company may not always be because they want to cover up fraud committed by the previous directors, but to improve the performance of the old directors by selecting new directors who can carry out their duties and authorities better to improve company performance. In addition, a company that changes directors may also indicate that the director who previously served has entered retirement, is sick or has passed away which causes the director to no longer be able to continue his duties and authorities in the company. The change of directors must also be carried out by the company referring to OJK Regulation No. 33/POJK.04/2014 Article 3 Paragraph 3, where after 5 years of serving as directors, the directors must be replaced so that the replacement of directors carried out by the company may indicate that the year of mandatory replacement of directors related to regulations coincides with the period when the study this is done.

### **Effect of Political Connection on Financial Statement Fraud**

Based on the results of testing the political connection variable on financial statement fraud, the result is that the probability value is  $0.3604 > 0.05$  with a coefficient value of  $-0.684443$ . This shows that the collusion proxied by the political connection variable has no effect on financial statement fraud.

The results of this study are in line with the research of Melisa (2022), Hernanda (2022), Intikhani and Sukirman (2021) which states that political connections have no effect on financial statement fraud. Companies with political connections may indicate that the company is taking advantage of good relations with politicians. Companies that have political connections are likely to have the motivation to maintain the good name of the company because of their political connections, the company hopes to be better known by stakeholders which can make the company more advanced. Companies also tend to avoid legal entanglements that can eliminate consumer trust in the company to maintain good relations and trust, companies will establish a good track record and be careful not to commit fraud or fraud. Therefore, political connections owned by a company are not always used for interests that lead to fraud, but to be used for the betterment of the company.

### **Effect of Nature of Industry on Financial Statement Fraud**

Based on the results of testing the nature of industry variable on financial statement fraud, the result is that the probability value is  $0.0005 < 0.05$  with a coefficient value of  $34.05498$ . This shows that opportunity is proxied by the nature of industry variable as measured using changes in receivables, namely the ratio of receivables to sales has an effect on financial statement fraud.

The results of this study are in line with the research by Sari and Witosari (2022) which prove that the nature of the industry has an effect on financial statement fraud. Fraud can work if the company's conditions are supportive, such as weak internal controls on a company account, one of which is accounts receivable. An increase in the amount of the company's receivables in the previous year may indicate that the company's cash turnover is not good. A significant increase in trade receivables can be a serious indication of the existence of financial statement fraud in a company because an increasing number of company trade receivables will certainly reduce the amount of cash that a company can use for its operational activities. This cash limitation can be an impetus for management to manipulate financial statements. In addition, the financial statements contain certain accounts whose balances are determined by the company based on an estimate, for example the bad debts account. With a subjective assessment in determining the value of the account, management can use the account as a tool to commit fraud in preparing financial statements. This can be an opportunity for companies to commit acts of fraud.

### **Effect of Change in Auditor on Financial Statement Fraud**

Based on the results of testing the change in auditor variable for financial statement fraud, a probability value of  $0.0105 < 0.05$  is obtained with a coefficient value of  $2.070341$ . This shows that the rationalization (rationalization) proxied by the variable change in auditors has an effect on financial statement fraud. This indicates that the more auditors change in a company, the greater the potential for financial statement fraud.



The results of this study are in line with research by Aviantara (2021) which prove that change in auditor has an effect on financial statement fraud. The change of auditors carried out can be used by management to cover up fraudulent financial statements that have been committed. For management, this is an act of rationalization when committing financial statement fraud because they do not feel guilty for the fraudulent actions they have committed or when planning to commit fraud. In addition, the change of auditors can also be used by management who plans to commit financial statement fraud. This is because the new auditor needs to learn in advance about information relating to transactions carried out by the company, so it will be more difficult for the new auditor to detect fraudulent acts being committed. The old auditor may find it easier to detect all fraud committed by management, either directly or indirectly because the old auditor is used to examining financial reports prepared by management so that the auditor can find out information relating to transactions carried out by the company. Therefore, management will take advantage of this auditor change to cover up fraudulent financial statements that have been committed or even plan to commit acts of fraudulent financial statements aimed at gaining personal gain, as well as to trick shareholders that the company's performance is "good" so that shareholders will believe in continuing to invest in the company.

### **Effect of Frequent Number of CEO Pictures on Financial Statement Fraud**

Based on the results of testing the frequent number of CEO picture variable on financial statement fraud, the probability value is  $0.1139 > 0.05$  with a coefficient value of  $-0.418737$ . This shows that Ego (Arrogance) is proxied by the frequent number of CEO picture variable (frequency of CEO image appearance) measured by counting the number of CEO image appearances in the company's annual report has no effect on financial statement fraud.

The results of this study are in line with research by Hernanda (2022) which proves that the frequent number of CEO pictures has no effect on financial statement fraud. The high attitude of arrogance can lead to the possibility of fraud or fraud due to the arrogance and superiority possessed by the CEO so that he feels that every internal control does not apply to him because of his status and position. In presenting the company's annual report there is an obligation to provide profile information on the management of the company where the CEO is held by the president director or main director. Presentation of CEO profile information is used to introduce the CEO to interested parties. The profile can be in the form of CEO personal information as well as CEO images such as when carrying out various company activities that need to be presented in the company's annual report as proof that the CEO participates actively and has responsibilities so that there are many CEO photos, achievements, and the entire CEO's track record. which is displayed repeatedly in the annual report may not always describe the presence of arrogance in a person, but rather to introduce the personality of the CEO in more depth through reports addressed to users.

### **CONCLUSION**

Based on the results of the research that has been carried out with the data that has been collected, tested, and analyzed, stimulus factor proxied by external pressure, opportunity factor proxied by nature of industry and rationalization factor proxied by change in auditor effect on

financial statement fraud. Temporary other factors such as the capability factor proxied by change in director, collusion factor proxied by a political connection and ego factor (arrogance) proxied by the frequent number of CEO pictures have no effect on financial statement fraud. The Implications for the auditors are to include all the tested variables in this study through the list of questionnaires when performing initial meeting in order to assess the risk of fraud, even for all the stakeholders can be signalling tools to adopt a scepticism manner if any conditions encountered.

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