Analysis of the Effect of Pentagon Fraud on Financial Statement Fraud (Empirical Study of Infrastructure Companies listed on the IDX 2019-2021)

Intan Alviah Ningrum[1], Dewita Puspawati [2]

[1]*Faculty of Economic and Business, University of Muhammadiyah Surakarta, Indonesia*
[2]*Faculty of Economic and Business, University of Muhammadiyah Surakarta, Indonesia*

ABSTRACT: This study aims to analyze the effect of pentagon fraud on financial statements fraud in Infrastructure companies listed on the IDX in 2019-2021. This study uses dependent variables, namely financial statement fraud which is measured using the Beneish M-Score method, while the independent variables are financial stability, external pressure, financial targets, personal financial needs, ineffective monitoring, nature of the industry, change of auditors, change of directors, frequent number of CEO picture. The data used is secondary data in the form of annual reports of Infrastructure companies in Indonesia for 2019-2021. The population of this study was 62 companies, samples were taken using the purposive sampling method. The research method used is a quantitative method with logistic regression analysis. The results showed that only the financial target variables and the nature of the Industry affected financial statement fraud. As for the variables of financial stability, external pressure, personal financial need, ineffective monitoring, change of auditors, change of directors, and a frequent number of CEO picture does not affect financial statement fraud.

I.   INTRODUCTION

In early 2020, the world faced an unprecedented economic, global, and health crisis caused by Covid-19. In Indonesia, according to data from the Central Statistics Agency in 2021, economic growth contracted in 2020 by 2.07%. This has caused the Indonesian economy in 2020 to experience deflation or a drastic decline because economic developments in Indonesia have an erratic movement due to Covid-19. The economic situation that occurs in Indonesia certainly brings much influence on companies in Indonesia. One of the most obvious influences is the economic situation that affects the performance of companies in Indonesia. The company's performance is reflected in the company's financial statements, this is certainly a concern for investors in deciding whether to invest their shares in the company or not. Financial statements are a benchmark of the efficiency and effectiveness of a company's performance, and it is hoped that financial statements can function optimally in providing the information needed by interested parties (Aprilia, 2017). Agustina & Pratomo (2019) stated that because financial statements are very important for the company, management can cover up the actual situation that occurs in financial statements through fraud in financial statements with the aim of performance that looks positive.

According to the Association of Certified Fraud Examiners (ACFE) in 2020, the largest loss was found in financial statement fraud with 10% of cases causing an average loss of $954,000 compared to the other two types of cases, namely 86% of cases with an average loss of $100,000 (misuse of assets) and an average loss of $200,000 with corruption cases of 43% (ACFE, 2020). According to data contained in occupational fraud 2022 based on 2,110 cases of work fraud investigated from January 2020 to September 2021, occupational fraud

has collected statistics on the methods used to commit the crime, including the results that have been detected, the characteristics of victims and perpetrators, and the ways that the company responds to after fraud is detected. In Indonesia, financial statement fraud is in the 3rd position of the most detrimental fraud, which is 9.2% of cases with a total loss of Rp 242,260,000,000 (ACFE, 2020). According to cnbcindonesia.com several cases of fraud in the financial statements in Indonesia include the case of PT KAI (Persero) in 2006 on the previous year's financial statements, which in the company's financial statements earned a profit of Rp 6.9 billion when the company should have lost IDR 63 billion. Then, PT Garuda Indonesia (Persero) Tbk (GIAA) is an Industrial (Transportation) sector company, known to have committed fraud in the 2018 financial statements, Garuda recorded a net profit, one of which was supported by cooperation between Garuda and PT Mahara Aero Teknologi of Rp 3. 48 trillion. The fund is still receivable with the contract valid for the next 15 years. After adjusting the recording, GIAA suffered a loss equivalent to Rp 2. 53 trillion.

The large number of fraud cases that occur in Indonesia is evidence that there is an audit failure of financial statements, here the function of external auditors is considered less than optimal because they have not been able to detect and prevent fraud committed by company management (Aprilia, 2017). Septriyani & Handayani (2018) states that the behavior and reasons/motives of management to commit fraud or fraud in financial statements are widely explained in fraud theory. The factors that cause fraud are referred to as the fraud triangle which later developed into diamond fraud and the latest fraud model development pentagon fraud discovered by Jonathan Marks (2012). Elements in the pentagon's fraud theory are measured in various ways as described in Cressey (1953) and Horwath (2011). In addition to the pressure, opportunity, and rationalization elements, Howarth (2011) added two quality elements that are believed to have a significant influence on fraud, namely competence and arrogance therefore that they become five elements known as Fraud Pentagon (Septianda et al., 2021).

Pressure is the impulse that causes someone to cheat. In general, it is caused by financial needs and situational pressures that arise due to the existence of financial obligations that exceed the limits of the ability that management must complete (Utama et al., 2018). According to SAS no. 99, four types of pressures may result in fraud in financial statements, namely financial stability, external pressure, personal financial needs, and financial targets. Opportunity is an opportunity to commit fraud caused by weak control (Rusmana & Tanjung, 2019). Proxies of opportunity according to SAS No.99 (AICPA 2002) include the nature of the industry and ineffective monitoring. Rationalization is a justification for fraud that is being planned or fraud that has occurred (Rusmana & Tanjung, 2019). There are several proxies owned by rationalization according to SAS No. 99 (AICPA 2002) namely Change of Auditors. Furthermore, competence is the ability of a person to override or ignore internal control, develop a sophisticated concealment strategy, and control social situations for their benefit and/or by selling them to others (Rusmana & Tanjung, 2019). The capability element in the pentagon fraud theory (Howart et al., 2011) is represented by the director turnover variable (Fatmaningrum & Anggarani, 2021). Arrogance is a person's superiority that combines with greed and a belief that internal control does not apply to him (Rusmana & Tanjung, 2019). The element of Arrogance is represented by the frequent number of photos of the CEO (Fathmaningrum & Anggarani, 2021; Howard et al., 2011).

This research is a replication and development of the research of Damayani et al (2017). The difference is from the measuring instruments used to detect the presence of financial statements. Research by Damayani et al. (2017) used the F-Score measuring instrument in detecting financial statement fraud. Meanwhile, this study used the Beneish M-Score measuring instrument. The Beneish M-Score model is a prediction model for fraud in financial statements-profit management, where the ratios contained in it have been proven to have the ability to predict financial statement fraud (Beneish, 1999). While the F-Score model is also a prediction model for financial statement fraud (Hugo, 2019; Dechow et al., 2011). The F-Score consists of an overview of the data presented derived from the summation of accrual quality and financial performance (Damayani et al., 2017). This study aims to analyze the effect of pentagon fraud on financial statements fraud in Infrastructure companies that are listed on the IDX in 2019-2021. Fraud must be detected and prevented from occurring in a company. Pentagon fraud is used to analyze fraud that occurs.

II.   MATERIAL AND METHODS

Agency Theory

Jensen and Meckling (1976) stated that agency relationships arise because of a contract between principals and agents by delegating some decision-making authority to agents. Agency theory describes the relationship between shareholders as principals and management as agents (Chandra & Suhartono, 2020). The principal as a shareholder wants the company's financial performance to improve therefore that the rate of return on investment is high while the management acting as an agent also has an interest in maximizing its welfare (Septianda et al., 2021). The relationship between the principal and the agent can cause agency conflicts because each has different interests that can cause fraud in reporting financial statements (Agusputri & Sofie, 2019).

Fraud Pentagon Theory

Fraud pentagon theory is one of the theories that explain the conditions that cause fraud. the fraud pentagon theory was first proposed by Crowe Horwath in 2010 as a development of Cressey's fraud triangle theory. Fraud pentagon theory consists of five elements, of which three elements are derived from fraud triangle theory and two additional elements. The five elements are pressure, opportunity, rationalization, competence, and arrogance.

Financial Statement Fraud

Fraud is defined by the Association of Certified Fraud Examiners (ACFE) as any kind of deliberate act to take or cross the property, or property money through deception, fraud, or other unfair means. In the context of auditing financial statements, fraud is defined as the misstatement or deletion of amounts or disclosures in financial statements that are carried out intentionally to deceive their users (Aprilia, 2017; Elder et al., 2011). Fraud committed by the management of an organization by presenting errors in financial statements that cause losses to investors and stakeholders is Fraudulent financial reporting (Rizqi & Purwanto, 2022; Pratami et al., 2019).

Research Framework
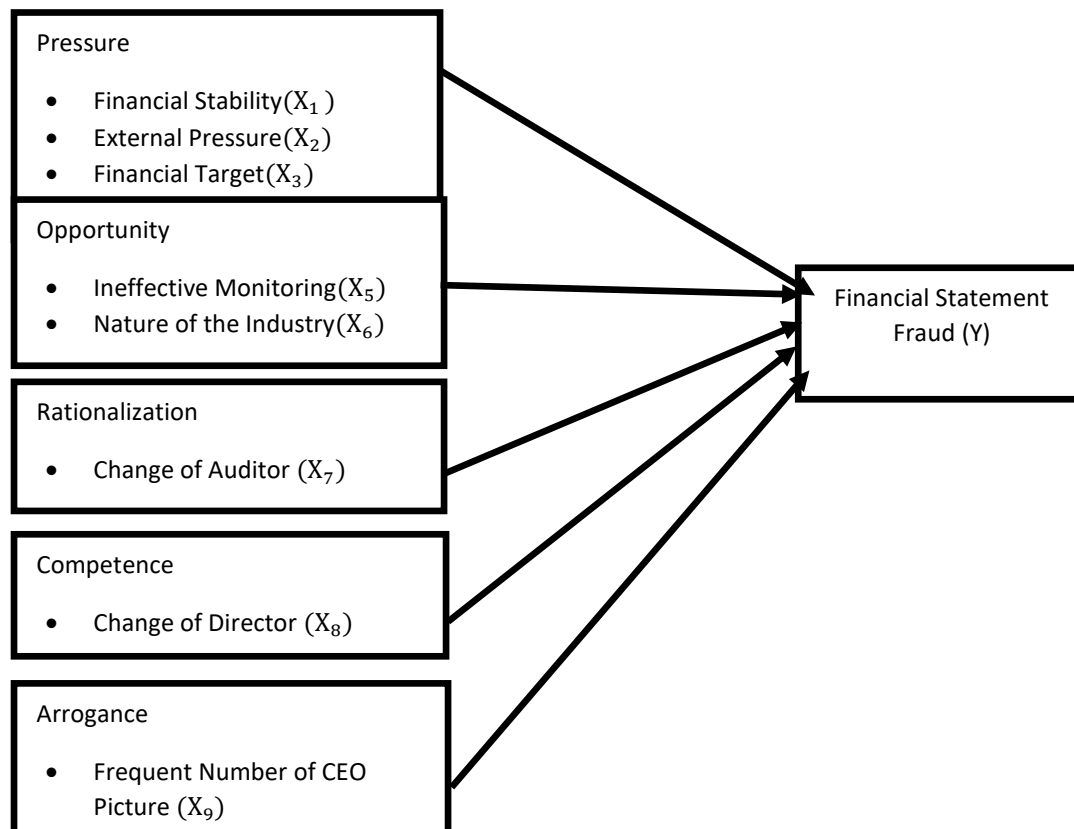
Under SAS No.99, managers face pressure to commit financial statement fraud when financial stability is

threatened by economic, industrial, or entity operating conditions. Pressure on management by focusing on financial results can lead to fraud in financial statements to show good performance results. A strict management and control system is important to produce the right decision-making in the company and avoid fraud (Jao et al., 2020). This is supported by research by Fathmaningrum and Anggarani (2021) which shows that financial stability affects financial reporting fraud in Indonesia and Malaysia. Based on the description above, the hypotheses proposed are:

H1: Financial stability affects financial statement fraud.

External pressure is a condition in which managers bear excessive pressure caused by external parties. Fathmaningrum and Anggarani (2021) put forward one example where managers come under pressure from external parties related to financing. The ability to comply with exchange listing requirements, pay debts, or fulfill debt agreements is a widely recognized source of external pressure (Skousen et al., 2008). This is supported by Dewi's research (2021) which shows that external pressure partially affects the detection of financial statement fraud. Based on the description above, the hypotheses proposed are:

H2: External pressure affects financial statement fraud

Financial targets are targets set by the company related to the financial performance to be achieved by the company (Yulitasari et al., 2022). Skousen et al. (2008) state that Return on Asset (ROA) is used to assess management's performance in determining wages or bonuses. The higher the ROA targeted by the company, the more vulnerable management will be to manipulate profits which is a form of fraud therefore that it has a positive relationship with financial statement fraud (Siregar & Surianti 2022). This research is supported by research by Fathmaningrum and Anggarani (2021) which shows that financial targets have a positive effect on financial reporting fraud. Based on the description above, the hypotheses proposed are:

H3: Financial targets affect financial statement fraud

According to SAS Number 99, personal financial need is a condition where the company's finances are also influenced by the financial condition of the company's executives. This means that the more the company's internal owners rely on their personal financial needs for the company's assets, the more potential the level of possible financial reporting fraudulent practices will be (Utama et al., 2018). Research by Utama et al., (2018) shows that financial personal need has a positive effect on financial statement fraud. Based on the description above, the hypotheses proposed are:

H4: Personal financial needs affect financial statement fraud

According to SAS No.99 of 2002, fraud in a company is caused by a lack of internal company supervision (Innefective Monitoring). Ineffective monitoring is the ineffectiveness of the company's internal supervision system on company performance (Agusputri & Sofie, 2019). Research conducted by (Agusputri & Sofie, 2019) states that ineffective monitoring has a positive effect on financial statement fraud. Based on the description above, the hypotheses proposed are:

H5: Ineffective monitoring affects financial statement fraud

One of the opportunities for fraudulent financial statements comes from the nature of the company's industry (SAS no. 99 2002). Summers and Sweeney (1998) state that in financial reporting there are certain accounts whose balance amounts are determined by the company based on an estimate, such as uncollectible receivables and obsolete inventory. They state that uncollectible receivables require subjective judgment in estimating the uncollectible receivables. The manager will focus on the account if they want to commit fraud in the financial statements. This research is supported by the research of Sihombing & Rahardjo (2014) with the proxy of the ratio of changes in accounts receivable showing erratic results of the analysis that the Nature of Industry has proven to have a positive effect on financial statement fraud. Based on the description above, the hypotheses proposed are:

H6: Nature of Industry affects financial statement fraud

Change of auditor can be assumed as a form of fraud trial efforts found by old auditors (Fabiolla et al., 2021). They stated that for the sake of personal interests, the management (agent) assumed that the fraud activities carried out would not be realized by the owner (principal) because the newly hired auditor must not understand the situation in the company thoroughly. This research is supported by Santoso's research (2019) which states that the variable of auditor change has a positive effect on financial statement fraud significantly. Based on the description above, the hypotheses proposed are:

H7: Change of auditors affects financial statement fraud

The company can improve the performance of the previous board of directors by changing the board of directors as an effort made by the company, either by changing the composition of the board of directors or by recruiting new directors who are considered better and more competent. Wolfe & Hermanson (2004) explain that cheating can occur if it is committed by someone with the right ability to carry out the cheating. Santoso (2019) stated that in reality changes in the board of directors can lead to not optimal initial performance because it takes time to adapt. This research is supported by research by Sasongko & Wijayantika (2018) state that changes in auditors affect fraudulent financial reporting. Based on the description above, the hypotheses proposed are:

H8: Change of director affects financial statement fraud

The level of superiority and arrogance that the CEO has can be seen through the many photos of the CEO that appear in a financial report because the CEO generally wants to show the public the position and status he has in a company because he does not want to lose it (Yanti & Munari, 2021). In the study, it was explained that a high level of arrogance can cause fraud because the arrogance of the CEO can make him use any means to maintain his position and status. This research is supported by research by Aprilliana & Agustina (2017) showing that the level of arrogance proxied by the frequency of CEO photos in the annual report can illustrate indications of fraud. Based on the description above, the hypotheses proposed are:

H9: Frequent Number of CEO Picture affects financial statement fraud.

III.   RESEARCH METHODS

The type of research conducted is quantitative data, where the data is expressed in numbers. This research uses secondary data, namely by using the company's annual report that has been audited. The company that was used as the object of research was an infrastructure company listed on the Indonesia Stock Exchange in 2019-2021. Infrastructure companies consist of several sectors, namely the energy sector, non-building construction, telecommunications, toll roads, and transportation. The required data is an annual report downloaded through the IDX website or the official website of the relevant company. Samples are taken using the purposive sampling method, where samples are taken according to predetermined criteria. The criteria used in sampling this study are:

1. Infrastructure sector companies listed on the Indonesia Stock Exchange during the 2019-2021 period
2. Companies that did not experience delisting during the period 2019-2021
3. Companies that publish audited annual reports for 3 consecutive years in 2019-2021
4. Companies that issue annual reports using rupiah currency units in 2019-2021
5. Companies that have complete data related to research variables in 2019-2021

The total population of this study was 62 companies from several sectors from the energy, non-building construction, telecommunications, toll road, and transportation sectors. Based on the above criteria there are 47 companies with a total of 141 financial statements that meet the requirements as samples that will be used in this study. Of the 141 research samples used, in the outlier 2 samples. Therefore the sample used in this study was 139.

Dependent Variables

The dependent variable used in this study is financial statement fraud as measured by the Beneish M-Score method. Beneish M-Score is a manipulation detection method invented by Messod D. Beneish in 1999. This method was used by Beneish to detect profit manipulation in all Compustat companies in the period 1982-1992 (Beneish, 1999). There are several financial ratios used in the detection of the M-Score, namely DSRI, GMI, AQI, SGI, DEPI, SGAI, LVGI, and TATA. The model of the M-Score formula is:

$$MScore = -4.840 + 0.920(DSRI) + 0.528(GMI) + 0.404(AQI) + 0.892(SGI) + 0.115(DEPI) - 0.172(SGAI) - 0.327(LVGI) + 4.697(TATA)$$

Description:

Day's sales in the receivable index (DSRI) $= \dfrac{\frac{Account\ Receivable_t}{Sales_t}}{\frac{Account\ Receivable_{t-1}}{Sales_{t-1}}}$

Gross Margin Index (GMI) $= \dfrac{\frac{Sales_{t-1}-Cost\ of\ good\ sold_{t-1}}{Sales_{t-1}}}{\frac{Sales_t-Cost\ of\ good\ sold_t}{Sales_t}}$

Asset Quality Index (AQI) $= \dfrac{1-\frac{Current\ assets_t+\ PP\&E_t}{Total\ Assets_t}}{1-\frac{Current\ assets_{t-1}+\ PP\&E_{t-1}}{Total\ Assets_{t-1}}}$

Sales Growth Index (SGI) $= \dfrac{Sales_t}{Sales_{t-1}}$

Depreciation Index (DEPI) $= \dfrac{\frac{Depreciation\ expense_{t-1}}{(Depreciation\ expense_{t-1}+PP\&E_{t-1})}}{\frac{Depreciation\ expense_t}{(Depreciation\ expense_t+PP\&E_t)}}$

ales, General, and Administrative Expense (SGAI) $= \dfrac{\frac{Sales,general,administrative\ expense_t}{Sales_t}}{\frac{Sales,general,administrative\ expense_{t-1}}{Sales_{t-1}}}$

Leverage Index (LVGI) $= \dfrac{\frac{Long\ term\ debt_t+Current\ Liabilities_t}{Total\ Assets_t}}{\frac{Long\ term\ debt_{t-1}+Current\ Liabilities_{t-1}}{Total\ Assets_{t-1}}}$

TATA $= \dfrac{EAT_t-Cash\ flow\ from\ operating\ activity_t}{Total\ Assets_t}$

Independent Variables and measurements

Variable	Indicator	Source
Financial Stability	$ACHANGE = \dfrac{Total\ Assets_t-Total\ Assets_{t-1}}{Total\ Assets_t}$	Damayani et al, 2017
External Pressure	$LEV = \dfrac{Long\ term\ debt+Current\ liability}{Total\ Assets}$	Damayani et al, 2017
Financial Target	$ROA = \dfrac{EAT}{Total\ Assets}$	Damayani et al, 2017
Personal Financial Need	$OSHIP = \dfrac{Number\ of\ share\ of\ management\ parties}{Total\ Share}$	Damayani et al, 2017
Ineffective Monitoring	$BDOUT = \dfrac{Number\ of\ independent\ board\ of\ commisioners}{Total\ board\ of\ commissioners}$	Damayani et al, 2017
Nature of the Industry	$RECEIVABLE = \dfrac{Account\ Receivable}{Sales} - \dfrac{Account\ Receivable_{(t-1)}}{Sales_{(t-1)}}$	Damayani et al, 2017
Change of Auditor	The auditor's substitution is an artificial variable (dummy variable). This variable is assigned code 1 if there is a change of KAP during the period 2019-2021, and code 0 if not	Damayani et al, 2017
Change of Director	The change of directors is a dummy variable. This variable is assigned code 1 if there is a change of directors during the	Damayani et al, 2017

	period 2019-2021, and code 0 if not	
Frequent Number of CEO Picture	Using the number of CEO images in the 2019-2021 annual report	Damayani et al, 2017

Data Analysis Methods

There are two data analyses used to evaluate hypotheses in this study, namely logistic regression and t-test. to test significant variables against financial statement fraud.

IV. DISCUSSION

Descriptive statistics

The results of the analysis of descriptive statistics explain the picture and summarize the data taken with results in the form of mean, standard deviation, minimum, and maximum. The results of descriptive statistics can be seen in the following table.

	N	Minimum	Maximum	Mean	Std. Deviation
Financial Stability	139	-11.6200	0.9160	-0.131705	1.1891112
External Pressure	139	0.0030	277.3220	2.499964	23.4802380
Financial Target	139	-4.5750	0.1350	-0.054086	0.4857501
Personal Financial Need	139	0	1	0.09	0.212
Ineffective Monitoring	139	0.2000	1.0000	0.408532	0.1322706
Nature of Industry	139	-1.0220	1.3800	-0.001604	0.2068675
Change of Auditor	139	0	1	0.46	0.500
Change of Director	139	0	1	0.35	0.479
CEO Picture	139	1	19	3.60	2.270
MScore	139	0	1	0.39	0.489
Valid N (listwise)	139				

Source: spss output, data proceprocessingssed

Table 2: Descriptive Statistics

Descriptive statistical results based on the table above can be described in each variable as follows:

1. Financial stability is measured using the percentage change in total assets during 2 years of fraud (Skousen et al, 2008). Financial Stability has the lowest data of -11.6200 and the highest at 0.9160. The mean value possessed by financial stability is -0.131705 which means that the sample company experienced a decrease in assets by 13.17%

2. External Pressure was measured using LEV (Damayani et al., 2017). External Pressure has the lowest data of 0.0030 which indicates the lowest value of the ratio of debt to total capital of the company. The highest score was 277.3220. The mean value possessed by external pressure is 2.499964 which means that the average company has debts amounting to 249% of the total capital owned.

3. Financial Targets are measured using ROA. Financial Target has the lowest data of -4.5750 and the highest of 0.1350. The average financial target is -0.54086 means that the sample company suffered a loss of 54.09% of its total assets.

4. Personal Financial Need is measured using OSHIP (Damayani et al., 2017). Personal Financial Need has the lowest data of 0 which shows that management does not own shares in the company in question. The highest value of 1 indicates that the highest value of management's shareholding is 100%. The average personal financial need is 0.09 indicating that 9% of the company's shares are owned by insiders.

5. Ineffective Monitoring is measured using BDOUT which involves comparing the number of independent commissioners with the total number of commissioners (Fathmaningrum & Anggarani, 2021). Ineffective Monitoring has the lowest data of 0.2000 which shows that the lowest value of the ratio of independent commissioners to the total number of commissioners is 20%. The highest score is 1.0000 indicates

that the highest value of the ratio of the number of members of the independent board of commissioners to the total number of members of the board of commissioners is 100%. The average ineffective monitoring is 0.408532 shows that the average ratio of independent members of the board of commissioners to the total number of members of the board of commissioners is 40.85%.

6.   Nature of the Industry is measured using RECEIVABLE (receivables rate return ratio) (Damayani et al, 2017). Nature of Industry has the lowest data of -1.0220 and the highest by 1.3800. The average Nature of the Industry is -0.001604 means that the average return on receivables by the company is 0.16%.

7.   Change in Auditor (AUDCHANGE) has the lowest data of 0 and the highest of 1, while the average is 0.46. This shows that the companies sampled in this study were 46% who on average made auditor changes during the study period.

8.   Change on Director (DCHANGE) has data lows of 0 and highs of 1, while the average is 0.35. This shows that as many as 35% of the average company sampled made a change to its board of directors during the research period.

9.   The Frequent Number of CEO Pictures (CEOPIC) has the lowest data of 1 and the highest of 19, while the average number of director photos that appear in the company's annual report during the research period is as many as 4 photos.

Logistic Regression Analysis

Logistic regression was chosen to be a hypothesis testing technique in this study. The steps in conducting a logistic regression test are as follows:

Assessing Coefficient Determination

Nagelkerke's R2 value can be explained like the value of R2 in multiple regression where the results revealed will explain how much an independent variable affects its dependent variable (Ghozali, 2016). Here are the results of the coefficient of determination test:

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	153.043	0.210	0.284

Source: SPSS output, data processing

Table 3: Model Summary

Based on table 3, Nagelkerke's value R^2 is 0.284. This means that the variability of the dependent variable can be explained by the independent variable of 28.4%, and the remaining 71.6 % is influenced by other variables that were not included in the research model.

Regression Model Feasibility Test Results

The feasibility of the regression model was tested using *Hosmer and Lemeshow's Goodness of Fit Test* by testing the null hypothesis that empirical data matched or matched the model (there is no difference between the model and the data therefore the model can be said to be fit). Here are the results of the regression model feasibility test:

Step	Chi-square	df	Sig.
1	12.678	8	0.123

Source: SPSS output, data processing

Table 4: Hosmer and Lemeshow Test

Based on table 4 shows that the value of Hosmer and Lemeshow's Goodness of Fit Test is 0.123 where this value is greater than 0.05. This suggests that the statistical value of Hosmer and Lemeshow's Goodness of Fit Test is 12.678 with a probability of significance of 0.123 whose value is above 0.05. It can be concluded that the

model is capable of predicting its observation value or it can be said that the model is accepted because it matches its observation data.

Logistic Regression Results

The results of the calculation of logistic regression analysis using the IBM SPSS V25 computer program are presented in the table:

		B	Sig.
Step 1a	Financial Stability	-0.299	0.308
	External Pressure	-0.853	0.355
	Financial Target	6.486	0.013
	Personal Financial Need	0.734	0.438
	Ineffective Monitoring	-0.925	0.546
	Nature of the Industry	7.946	0.001
	Change of Auditor	-0.528	0.197
	Change of Director	-0.350	0.419
	CEO Picture	-0.123	0.186
	Constant	1.002	0.291

Source: SPSS output, data processing

Table 5: Logistic regression results

Based on the results of logistic regression, can then be obtained through the following equations:

$$FRAUD = 1.002 - 0.299\,FS - 0.853EP + 6.846FT + 0.734PFN - 0.925IM + 7.946NoI - 0.528CoA - 0.350CoD - 0.123CEOPIC + \varepsilon$$

The above equation shows that:

1.　　Value α = 1.002. This means that if the independent variable is unchanged or considered constant (worth 0) then *fraud* will still be worth 1,002 points.

2.　　Value β_1 = -0.299. This means that if financial stability (ACHANGE) rises by 1 point, then fraud in financial statements will decrease by 0.299 points.

3.　　Value β_2 = -0.853. This means that if external pressure (LEV) rises by 1 point, then fraud in financial statements will decrease by 0.853 points.

4.　　Value β_3 = 6.486. This means that if the financial *target* (ROA) rises by 1 point, then fraud in the financial statements will increase by 6.846 points.

5.　　Value β_4 = 0.734. This means that if *personal financial needs* (Managerial ownership) increase by 1 point, then fraud in financial statements will increase by 0.734 points.

6.　　Value β_5. = -0.925. This means that if *ineffective monitoring* (Number of independent commissioners) increases by 1 point, then fraud in financial statements will decrease by 0.925 points.

7.　　Value β_6 = 7.946. This means that if the nature of the industry (RECEIVABLE) rises by 1 point, then fraud in the financial statements will increase by 7.946 points.

8.　　Value β_7= -0.528. This means that if there is a voluntary change of auditors in the company, fraud in the financial statements will decrease by 0.528 points.

9.　　Value β_8. = -0.350. This means that if there is a change of directors in the company, fraud in the financial statements will decrease by 0.350 points.

10.　　Value β_9. = -0.123. This means that if there is an increase in the number of CEO photos appearing in the annual report by 1 piece, then fraud in the financial statements will decrease by 0.123 points.

T-Test Results and Discussion

　　　　The T-test is used in testing to find out how far the influence of an independent variable is on its partially bound variable. Based on the calculations, it can be described as follows:

1.　　Financial stability affects financial statement fraud

Based on the results of the t-test, the financial stability variable using the ACHANGE measurement has a significance value of 0.308. The result of the significance value is greater than that of 0.05 indicating that financial stability does not affect financial statement fraud. Based on the results of the study, it can conclude that it is H_1 **rejected** because managers will not necessarily manipulate financial statements to improve the company's prospects when financial conditions are unstable or experience a decline because it will aggravate the company's financial condition in the future (Agusputri & Sofie, 2019; Ulfah et al., 2017). According to Kayoi & Fuad (2019), every company has the same asset growth tendency, even though companies that commit fraud have a lower value, but still these variables cannot distinguish between fraud companies and non-fraud companies. In this study, the high low financial stability of the company did not cause automatic management to commit fraud to improve financial stability. The results of this study support the research of Damayani et al (2017), Agusputri & Sofie (2019), and Kayoi & Fuad (2019) which shows that financial stability does not affect financial statement fraud.

2.   External pressure affects financial statement fraud

Based on the results of the t-test, the external pressure variable measured using LEV measurements, has a significance value of 0.355. The result of the significance value is greater than that of 0.05, this shows that external pressure does not affect financial statement fraud. Based on the results of the study, it can conclude that H_2 **it was rejected.** This can happen because the company can pay its debts and prefers other sources of funding besides loans, for example by reissuing shares of the Faradiza company (2018). The high leverage ratio is not a pressure for management to cheat financial statements (Purnama & Astika, 2022). The results of this study support the research of Damayani et al (2017), Aprilia (2017), Septriani & Handayani (2018), and Faradiza (2018) which shows that external pressure does not affect financial statement fraud.

3.   Financial targets affect financial statement fraud

Based on the results of the t-test, the financial target variable measured using ROA measurements, has a significance value of 0.013. A significantly smaller value result compared to 0.05, indicates that the financial target affects the fraud of financial statements. Based on the results of the study, it can conclude that H_3 **it is acceptable.** Management faces pressure to produce financial performance set by the principal. Management will utilize the use of assets to generate the desired profit for the company and show good performance (Jao et al., 2020). Therefore, if the company fails to realize the financial targets that have been made before, then managers can be more ambitious and will make every effort to realize the achievement of these targets (Fathmaningrum & Anggarani, 2021). The results of this study support the research of Setiawati & Baningrum (2018), Jao et al (2020), and Fathmaningrum & Anggarani (2021) which shows that financial targets have a positive effect on financial statement fraud.

4.   Personal financial needs affect financial statement fraud

Based on the results of the t-test, the personal financial need variable measured using OSHIP has a significance value of 0.438. The result of a significant value greater than that 0.05 indicates that personal financial need does not affect financial statement fraud. Based on the results of the study, it can conclude that H_4 **it was rejected.** This is because the proportion of shareholders from management is relatively low, indicating that there has been an exception to share ownership between shareholders as owners and managers as company management. With the difference in share ownership, managers do not have the opportunity to cheat on financial statements (Fathmaningrum & Anggarani, 2021). The results of this study support the research of Damayani et al (2017), Aprilia (2017), and Fathmaningrum & Anggarani (2021) which shows that personal financial needs do not affect financial statement fraud.

5.   Ineffective monitoring affects financial statement fraud

Based on the results of the t-test, the ineffective monitoring variable measured using BDOUT has a significance value of 0. 546. The result of a significant value greater than that 0.05 indicates that Ineffective monitoring

does not affect financial statement fraud. Based on the results of the study, it can conclude that H_5 **it was rejected.** This can happen because the appointment of an independent board of commissioners by the company may only be done to comply with formal regulations and provisions of the Indonesia Stock Exchange which requires an independent commissioner to be at least 30% of the number of existing commissioners and is not intended to enforce Good Corporate Governance (GCG) in the mechanism of efforts to prevent misstatements in financial statements (Siregar & Surianti, 2022). According to Setiawati & Baningrum (2018) with the existence of an independent board of commissioners, the supervision of the company's operations will be carried out objectively and independently and away from inadvertence by certain parties, therefore not triggering managers to commit financial statement fraud. The results of this study support the research of Yesiariani & Rahayu (2017), Setiawati & Baningrum (2018), and Siregar & Surianti (2022) which shows that Ineffective Monitoring does not affect financial statement fraud.

6.   Nature of the Industry affects financial statement fraud
Based on the results of the t-test, the Nature of the industry variable measured using RECEIVABLE has a significance value of 0.001. The result of a significant value that is smaller compared to 0.05 indicates that nature of the industry affects financial statement fraud. Based on the results of the study, it can conclude that H_6 **it is acceptable.** An increase in the number of the company's receivables from the previous year may be an indication that the company's cash turnover is not good. A large number of accounts receivable owned by the company will reduce the amount of cash that the company can use for its operational activities. Limited cash can be an impetus for management to manipulate financial statements (Sihombing & Rahardjo, 2014). The results of this study are in line with the research of Sihombing & Rahardjo (2014), and Fathmaningrum & Anggarani (2021) which shows that Nature of the Industry has a positive effect on financial statement fraud.

7.   Change of auditors affects financial statement fraud
Based on the results of the t-test, the Change of auditor variable measured using AUDCHANGE has a significance value of 0.197. The result of a significant value greater than that 0.05 indicates that a change of auditors does not affect financial statement fraud. Based on the results of the study, it can conclude that H_7 **it was rejected.** This is because the company changes auditors not because it wants to reduce the shortness of financial statements by old auditors, but because the company complies with the Government Regulation of the Republic of Indonesia Number 20 of 2015 article 11 paragraph 1 which states that the provision of audit services on financial statements to an entity by a Public Accountant is limited to a maximum of 5 (five) consecutive financial years (Setiawati & Baningrum, 2018). According to Fabiolla et al (2021), companies that experience auditor changes do not always try to cover up fraud, but it could be because the company is unhappy with the results of the company's performance in the past therefore it decides to implement changes with the target of improving the company's next performance. The results of this study are in line with the research of Setiawati & Baningrum (2018) and Fabiolla et al (2021) which show that the change of auditors does not affect financial statement fraud.

8.   Change of director affects financial statement fraud
Based on the results of the t-test, the change of director variable measured using DCHANGE has a significance value of 0.419. The result of a greater significance value compared to 0.05 indicates that a change of director does not affect financial statement fraud. Based on the results of the study, it can conclude that H_8 **it was rejected.** This happens because there are rarely changes in the board of directors. Changes to the board of directors show that the board of directors can be trusted by shareholders to hold positions again because they are satisfied with the performance that has been carried out. The change of directors carried out by the company occurs because the main stakeholders of the company demand performance improvement, which is done by appointing directors who are more competent than the previous directors (Yesiariani & Rahayu, 2017). The results of this study are in line with the research of Rizqi & Purwanto (2022) which shows that the change of director does not affect financial statement fraud.

9.   Frequent Number of CEO Picture affects financial statement fraud

Based on the results of the t-test, the Frequent Number of CEO Picture variable measured using CEOPIC has a significance value of 0.186. The result of a greater significance value compared to 0.05 indicates that the Frequent Number of CEO Pictures does not affect financial statement fraud. Based on the results of the study, it can conclude that **H_9 it was rejected.** Superiority, greed, and believing that he will not be affected by internal control are traits of arrogance (Horwarth, 2010). However, this study shows that the number of CEO photos that appear in financial statements does not affect the occurrence of financial statement fraud. There are at least a lot of photos of CEOs that appear in financial statements because companies want to introduce CEOs that are accompanied by information from the personal data that the company shares. In addition, the images also aim to illustrate how much responsibility the CEO is in each series of activities and in directing the organization (Fathmaningrum & Anggarani, 2021). The results of this study are supported by Faradiza (2018) which shows that the Frequent Number of CEO Picture does not affect financial statement fraud.

V.   CONCLUSION

        The conclusions that can be drawn from the research that has been carried out based on the results of the analysis are:

1.   The financial stability variable has a significance value of 0.308. The significance value is greater than 0.05, then H_1 rejected. This means that the financial stability variable does not affect the occurrence of financial statement fraud.

2.   The external pressure variable has a significance value of 0.355. The significance value is greater than 0.05, then H_2 rejected. This means that the external pressure variable does not affect the occurrence of financial statement fraud.

3.   The target financial variable has a significance value of 0.013. The significance value is less than 0.05, then H_3 accepted. This means that the target financial variable affects the occurrence of financial statement fraud.

4.   The personal financial need variable has a significance value of 0.438. The significance value is greater than 0.05, then H_4 rejected. This means that the personal financial need variable does not affect the occurrence of financial statement fraud.

5.   The ineffective monitoring variable has a significance value of 0.546. The significance value is greater than 0.05, then H_5 rejected. This means that the ineffective monitoring variable does not affect the occurrence of financial statement fraud.

6.   The nature of the industry variable has a significance value of 0.001. The significance value is less than 0.05, then H_6 accepted. This means that variables of the nature of the industry affect the occurrence of financial statement fraud.

7.   The change of auditor variable has a significance value of 0.197. The significance value is greater than 0.05, then H_7 rejected. This means that the variable change of auditors does not affect the occurrence of financial statement fraud.

8.   The change of director variable has a significance value of 0.419. The significance value is greater than 0.05, then H_8 rejected. This means that the change of director variable does not affect the occurrence of financial statement fraud.

9.   The frequent number of CEO picture variables has a significance value of 0.186. The significance value is greater than 0.05, then H_9 rejected. This means that the frequent number of CEO picture variables does not affect the occurrence of financial statement fraud.

VI.   REFERENCES

1.   ACFE. (2020). Indonesian Fraud Survey. ACFE Indonesia Chapter.
2.   ACFE. (2022). *Occupational Fraud* 2022: A Report to The Nations
3.   AICPA, Sas No.99. (2002). "Consideration of Fraud in A Financial Statement Audit"

4. Aprilia. (2017). Analysis of the Effect of *Pentagon* Fraud on Financial Statement Fraud Using the Beneish Model on Companies That Implement the *ASEAN Corporate Governance Scorecard*. Journal of Assets (Research Accounting) Vol.9, No.1, 101-132.

5. Aprilia, Regina. (2017). The Effect of Financial Stability, Personal Financial Need, Ineffective Monitoring, Change in Auditor, and Change in Director on Financial Statement Fraud in Diamond Fraud Perspective (Empirical Study on Manufacturing Companies Listed on IDX for the 2012-2014 Period). JOM Fekon Vol.4 No.1.

6. Aprilliana, S & Agustina L. (2017). The Analysis of Fraudulent Financial Reporting Determinants through the Fraud Pentagon Approach. Jurnal Dinamika Akuntansi Vol.9, No. 2, pp. 154-165. http://journal.unnes.ac.id/nju/index.php/jda.

7. Agustina, Ratna Dewi & Dudi Pratomo. (2019). The Effect of Pentagon Fraud in Detecting Financial Reporting Fraud (Study on mining sector companies listed on the IDX for the period 2013-2017). JIMEA Vol. 3 No. 1.

8. Agusputri, Hanifah & Sofie. (2019). Factors Influencing Fraudulent Financial Reporting Using Pentagon Fraud Analysis. Journal of Tax Information, Accounting and Public Finance Vol 14 No.2 105-124. http://dx.doi.org/10.25105/jipak.v14i2.5049.

9. Beneish, Messod D. (1999). "The Detection of Earnings Manipulation" 55 (5): 24– 36.

10. Bps.go.id

11. Chandra, N., & Suhartono, S. (2020). Analysis of the Influence of Diamond Fraud and Good Corporate Governance in Detecting the Possibility of Fraudulent Financial Statements. Journal of Accounting, 7(2), 175-207.

12. Cressey, D. (1953). "Other People's money, In: "Detecting and Predicting Financial Statement Fraud: The Effectiveness of The Fraud Triangle and SAS No. 99, Skousen et al. 2008. Journal of corporate governance and firm performance. Vol. 13 h.53-81.

13. Cnbcindonesia.com.

14. Damayani, Fitri, Tertiarto Wahyudi, Emylia Yuniatie. (2017). The effect of *Pentagon Fraud* on financial statements of infrastructure companies listed on the Indonesia Stock Exchange in 2014-2016. ACUTEABILITY: Journal of Accounting Research and Development Vol. 11 No.2.

15. Dewi, Mega Arisia. (2021). *The Effect Of Fraud Pentagon On Fraudulent Financial Statement Of Banking In Indonesia*. Essence: Journal of Business and Management Volume 11 (2), pp 189-206.

16. Marks, Jonathan. (2011). "The Mind Behind the Fraudsters Crime: Key Behavioral and Environmental Elements. " InCroweHorwathLLP,1–62.

17. Fabiolla, Ruth Grace, Rev. Ari Andriyanto, Vishnu Julianto. (2021). The Pentagon's Effect On *Fraudulent Financial Reporting*. National Research Conference on Economics, Management, and Accounting Vol. 2, 981-995.

18. Faradiza, S. A. (2018). Pentagon Fraud And Financial Statement Fraud, Journal Of Economics And Business, Volume II, No. 1.

19. Fathmaningrum, Erni Suryandari & Gupita Anggarani. (2021). Fraud Pentagon and Fraudulent Financial Reporting: Evidence from Manufacturing Companies in Indonesia and Malaysia. Journal of Accounting and Investment Vol.22 No.3. http://journal.umy.ac.id/index.php/ai.

20. Horwarth, C.(2011). Why The Fraud Triangle is No Longer Enough. Horwarth, Crowe LLP.

21. Hugo, Jason. (2019). Efektivitas Model Beneish M-Score dan Model F-Score Dalam Mendeteksi Kecurangan Laporan Keuangan. Jurnal Muara Ilmu Ekonomi dan Bisnis Vol.3, No 1 hlm 165-175.

22. Jao et al. (2020). Pengaruh Financial Target dan Financial Stability terhadap Financial Statement Fraud. YUME: Journal of Management Volume 4 Issue 1 (2020) Pages 27 – 42.

23. Jensen, Michael C, dan William H Meckling. (1976). "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure." JournalofFinancialEconomics3(4):305–360.

24. Kayoi, Sabbath Andrian & Fuad Fuad. (2019). Factors Affecting the Financial Statement Fraud Triangle in Manufacturing Companies on the IDX for the 2015-19 Period. *Diponegoro Journal of Accounting, vol. 8 No.4.*

25. Purnama, Sukma Indah & Ida Bagus Putra Astika.(2021). Financial Stability, Personal Financial Need, Financial Target, External Pressure, and Financial Statement Fraud. Journal of Accounting Vol.32 No.1.

26. Rizqi, Iman Akram & Agus Purwanto. (2022). The Effect of Pentagon Fraud Elements on Financial Reporting of SOEs Listing on the Indonesia Stock Exchange in 2016-2020. Diponegoro Journal of Accounting Vol 11, No 3.

27. Rusmana, O., & Cape, H. (2019). Oman Rusmana and Hendra Tanjung - Financial Stability. Journal of Economics, Business, and Accounting (JEBA), 21.

28. Santoso, Stephen Heru. (2019). The Phenomenon of Fraudulent Reports on Public Companies in Indonesia. Journal of Master of Accounting Trisakti Vol. 6 No. 2 173-200. http://dx.doi.org/10.25105/jmat.v6i2.5556.

29. Sasongko, N & Wijayantika, S. F. (2019). Risk Factors for Fraud in the Implementation of Fraudulent Financial Reporting (Based on Crown's Fraud Pentagon Theory Approach). Indonesian Accounting and Finance Research, 4 (1), 67-76. Https://Doi.Org/10.23917/Reaksi.V4i1.7809.

30. Septiani, Yossi & Desi Handayani. (2018). Detecting Financial Statement Fraud with Pentagon Fraud Analysis. Journal of Accounting, Finance, and Business Vol 11, No. 1, May 2018, 11-23. http://jurnal.pcr.ac.id.

31. Septianda et al. (2021). The Effect Of Pentagon's Fraud In Detecting Financial Statement Fraud (Empirical Study On Companies Manufactures Listed In IDX 2015-2019. JAR Vol 2 No. 1, 95-111. https://online-journal.unja.ac.id/JAR/.

32. Setiawati, E. & Baningrum, R. M. (2018). Detection of Fraudulent Financial Reporting Using Pentagon Fraud Analysis: A Case Study on Manufacturing Companies Listed on the IDX in 2019-2016. Indonesian Accounting and Finance Research, 3 (2), 91-106.

33. Sihombing, Kennedy Samuel. (2014). "Diamond Fraud Analysis in Detecting Financial Statement Fraud: An Empirical Study on Manufacturing Companies Listed on the Indonesia Stock Exchange (Bei) in 2010-2012". Diponegoro Journal Of Accounting Volume 02, Number 02. ISSN (Online): 2337-3806.

34. Siregar, Erna & Meily Surianti. (2022). Detection of Financial Statement Fraud in the Perspective of Fraud Triangle in Infrastructure, Utilities, and Transportation Sector companies on the Indonesia Stock Exchange. JAKP: Journal of Accounting, Finance, and Taxation Vol. 5 No. 1.

35. Skousen et al., (2008). "Detecting and Predecting Financial Statement Fraud : The Effectiveness of Fraud Triangle and SAS No. 99". In C.J Skousen, K.R. Smith, & CJ Wright, Advances in Financial Economics (pp. 53-81).

36. Summers, S., dan J Sweeney. (1998). Fraudulently misstated financial statements and insider trading: An Empirical analysis. The Accounting Review 73 (1): 131-146.

37. Utama et al. (2018). "Analysis of Factors In The Perspective Of Fraud Triangle As A Predictor Of Fraudulent Financial Reporting." E-Journal of Economics and Business 7 (1):251–278.

38. Wolfe, David T & Dana R. Hermanson. (2004). The Fraud Diamond: Considering the Four Elements of Fraud. CPA Journal 74.12 38-42.

39. Yanti, Delviana Dama & Munari. (2021). *Pentagon* Fraud Analysis of Financial Statement Fraud in the Manufacturing Company Sector. Journal of Accounting Vol. 17 No. 01, 31-46.

40. Yulitasari et al. (2022). Factors Influencing Pentagon Fraud Against Fraudulent Financial Statements: Litterature Review. Indonesian Scientific Journal Vol.7, No. 7.

41. Yesiariani, Merissa & Isti Rahayu. (2016). Diamond Fraud Analysis in Detecting Financial Statement Fraud. XIX National Symposium on Accounting, Lampung.