

ANALYSIS OF FRAUD TRIANGLE FACTORS AND FINANCIAL DISTRESS THAT INFLUENCE FINANCIAL STATEMENT FRAUD IN REAL ESTATE COMPANIES LISTED ON THE IDX

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Abstract

This study aims to determine the influence of fraud triangle factors including financial stability, external pressure, opportunity and rationalization and financial distress on financial statement fraud in Real Estate companies listed on the IDX in 2018 - 2022. The study was conducted based on the 2022 ACFE report that financial statement fraud has the highest average loss of any type of fraud and it is known that the Real Estate industry is the industry that experiences the most average losses from fraud. The sampling technique used was purposive sampling with a sample of 33 companies during 5 years of observation so that the total number of observation samples was 165. The analysis technique used was regression analysis on quantitative data with panel data on Eviews software version 13. The results of the study indicate that opportunity and financial distress have a positive effect on financial statement fraud and rationalization has a negative effect on financial statement fraud. While financial stability and external pressure do not affect financial statement fraud.

Keywords: *fraud triangle, financial situation, financial statement fraud*

INTRODUCTION

According to Saleh, Aladwan, Alsinglawi & Almari (2021) financial accounts are considered as the basic and final result of accounting which is the main source of knowledge for users. Financial accounts are evidence of the quality of financial reports in assessing the information presented for decision making. The better the quality of the financial reports presented, the more positive the user's view of the company's finances which has an impact on operational sustainability. Based on the report from the Association of Certified Fraud Examiners (ACFE) of three types of fraud, namely: corruption, misappropriation of assets and financial statements surveyed in several countries, financial statement fraud has the highest amount of loss, followed by corruption and the last is asset misappropriation. The average value of losses due to financial statement fraud reached \$ 593,000, followed by corruption with an average loss of \$ 150,000 and in the last order, asset misappropriation has an average loss of \$ 100,000.

Table 1.1. Average Highest Losses Based on Fraud Type

Order	Types of Fraud	Average Loss
1	Financial statement fraud	\$593,000
2	Corruption	\$150,000
3	Misappropriation of assets (asset misappropriation)	\$100,000

Source: Quoted by researchers from the 2022 ACFE report

From the data above, it can be concluded that when fraud occurs, it will have an impact on losses in the form of material experienced by both internal and external parties of the organization. Financial statement fraud or financial statement fraud has the highest impact on the value of losses among other types of fraud. Therefore, this

study focuses on fraud that occurs in financial statements. The results of interviews in Ikbal's research (2020) revealed that in general, financial statement manipulation is carried out because there are many motivations. The most well-known motivation in financial statement fraud is the fraud triangle. The fraud triangle proposed by Donald Cressey is three factors that usually cause fraud, namely: pressure, opportunity and rationalization.

Pressure as a trigger factor for fraud because it can lead someone to behave unethically (Fitri, Syukur & Justisa, 2019). One of the triggers of pressure is the condition of the company's financial stability (Lastanti, Murwaningsari & Umar, 2022). Investors prefer the financial stability of the company through the effective use of assets owned. When the company's financial condition does not show stability, it will create pressure for management to commit fraud in presenting financial information because the company cannot maximize its assets and cannot use investment funds efficiently (WR & Suryani, 2019). The results of research by Alfarago, Syukur & Maburur (2023); Syahria, Kusumawati & Ervanto (2019) and WR & Suryani (2019) show that financial stability can influence the occurrence of financial statement fraud. Meanwhile, research conducted by Fatkhurrizqi (2021), Umar, Partahi & Purba (2020) and Ozcelik (2020) showed the opposite results, namely that financial stability cannot influence the occurrence of financial statement fraud. Based on the results of the ACFE study in 2022, the real estate industry is the industry that experiences the most average losses due to fraud from five other industries. The average loss value occurs as a result of fraud. The average loss in the real estate industry reaches \$435,000 as shown in Figure 1.1.

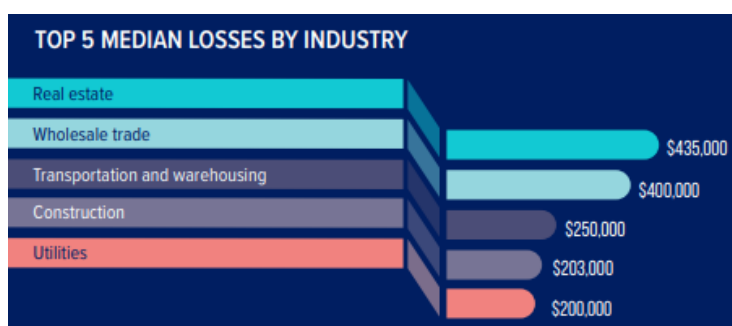


Figure 1.1: Top 5 Industries with the Largest Average Losses

Source: Association of Certified Fraud Examiners (ACFE) in Occupational Fraud 2022: A Report to The Nations

From the data obtained by researchers through the ACFE report from 2018 to 2022, the development of this industry continues to increase every 2 periods shown in Figure 1.2 with a percentage increase of 41% in 2020 from 2018 and 71% in 2022 from 2020 so that researchers use this industry as a research sample.

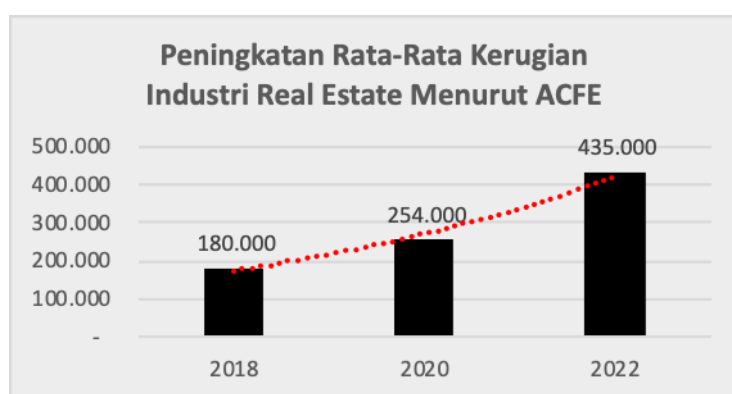


Figure 1.2: Graph of Average Increase in Real Estate Industry Losses from 2018 to 2022 According to ACFE Report

Source: Quoted by researchers from the 2018-2022 ACFE report

LITERATURE REVIEW

2.1. Fraud Triangle Theory

Fraud is an intentional act or negligence that is intentionally done to deceive others which results in losses for the victim and/or provides benefits for the perpetrator (Ozcelik, 2020). Cressey (1953) stated that an embezzler or person who commits embezzlement is when a person who receives a position of trust and violates that trust by committing a crime.

2.2. Bankruptcy Theory

Beaver in 1966 who explained the use of financial ratios to predict business failure through empirical studies or to identify differences between companies that experience business failure and those that do not. Failure is defined as the inability of a company to meet its financial obligations when due or when cash flow estimates indicate that the company cannot meet payment obligations on time, resulting in bankruptcy (Beaver, 1966; Farias, Martinez & Cervantes, 2021; Aviantara, 2020).

2.3. Financial Statement Fraud

Financial statement fraud is a deliberate manipulation in presentation or omission of amounts in financial statements with the aim of deceiving users (Ratmono, Darsono & Cahyonowati, 2020; Nurcahyono, 2021). Financial statement fraud usually contains an overstatement of assets, revenues and profits and an understatement of liabilities, costs and losses (Aviantara, 2023). Reporting that contains fraud cannot be trusted because it provides information that does not correspond to the actual state of the company.

2.4. Financial Stability

Pressure is an individual or group experiencing a situation that encourages them to take actions that lead to fraud (Alfarago, Syukur & Maburur, 2023). Pressure drives someone to manipulate financial reports to make them look better than they really are (Fitri, Syukur & Justisa, 2019). This pressure can occur when a company's financial stability declines compared to other entities or is threatened by economic conditions.

2.4. External Pressure

Ozcelik (2020) and Fathurrizqi & Nahar (2021) stated that external pressure is excessive pressure faced by management to meet the needs of third parties by ensuring that the company strives to show high financial performance and profits to potential investors. Companies whose financial statements are reflected as profitable can face liquidation, so this is the reason investors appreciate the company's ability to pay debts (Rahman & Jie, 2022). The need for third parties is obtained by the company through debt or external financing sources.

2.5. Opportunity

Opportunity is the possibility for individuals or groups to carry out actions that can result in fraud without being detected due to weaknesses in an organization's internal control system or ineffective supervision. Rahman & Jie (2022) stated that opportunity occurs due to 6 main causes: 1) weak internal control, 2) inability to access the quality of work, 3) no punishment, 4) information asymmetry, 5) ignorance and inadequate ability and 6) incomplete audit system.

2.6. Rationalization

Rationalization can arise because the perpetrator seeks justification for his actions (Cressey, 1953). The perpetrator creates reasons for the fraud to be in accordance with their code of ethics regardless of the reasonable explanation after facing pressure and receiving pressure (Fitri, Syukur & Justisa, 2019). From the explanation, it can be concluded that rationalization is an individual or group that commits fraud who convinces themselves that the actions they take are reasonable or necessary in certain situations.

RESEARCH FRAMEWORK AND HYPOTHESIS

3.1. Research Framework

This study was conducted to analyze the influence of each independent variable on its dependent. The dependent variable is financial statement fraud, while the independent variables are asset change as X1, leverage as X2, number of independent directors as X3, auditor change as X4 and financial distress as X5. The conceptual framework can be seen in Figure 3.1 below:

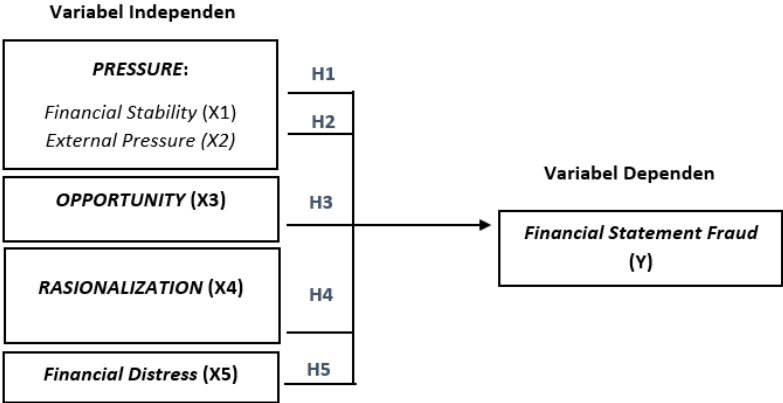


Figure 3.1: Conceptual Framework

3.2. The Influence of Financial Stability on Financial Statement Fraud

One of the triggers of pressure is the stability of the company's financial condition (Lastanti, Murwaningsari & Umar, 2022). The financial stability of a company can trigger management to commit financial reporting fraud so that the information presented remains attractive to investors, creditors and other parties (Alfarago, Syukur & Mabur, 2023). Statement of Auditing Standard (SAS) No. 99 states that management tends to face the urge to commit fraud and manipulate financial reports when the company's financial stability weakens or is disrupted by economic, industrial or operational situations (Syahria, Kusumawati & Erwanto, 2019).

3.3. The Influence of External Pressure on Financial Statement Fraud

The pressure factor in financial statement fraud is usually considered an operational problem that may be an urgent need for funds indicated by financial ratios (Rahman & Jie, 2022). Urgent funding needs are carried out by management when they do not have good cash flow in operations. One way to meet urgent funding needs for companies is by taking out debt. If the company's debt is too high, the company will have difficulty meeting its obligations, resulting in worsening financial conditions and even the risk of bankruptcy (Rahman & Jie, 2022). Businesses whose finances are disrupted by debt burdens are more likely to manipulate financial reports to look good to third parties and get creditor approval for financing (Nurristya & Ratmono, 2022 and Ozelik, 2020). High debt levels and significant fluctuations in debt use can be an indication of irregularities (Toit, 2024).

3.3. The Influence of Opportunity on Financial Statement Fraud

Opportunity occurs when an organization has weak control (Yanara, 2023). Opportunity occurs during a period when fraud is not detected and the perpetrator sees a gap in carrying out his actions. To prevent this, there are regulations that have been formed to encourage effective monitoring in the company, namely the Financial Services Authority Regulation of 2014 Number: 33/POJK.04/2014, one of which contains information regarding the function of independent directors in supervising the management of the company. Independent directors have a crucial role in overseeing management actions that are potentially unethical (Girau, Bujang & Jidwin, 2022).

3.4. The Influence of Rationalization on Financial Statement Fraud

Rationalization can arise because the perpetrator seeks justification for his actions (Cressey, 1953). An example of a fraud risk factor from SAS no. 99 related to errors in financial reporting is due to a disharmonious relationship with the current or predecessor auditor as a result of frequent disputes (Skousen, Smith & Wright, 2009). This disharmonious relationship causes the company to change its auditor.

3.5. The Influence of Financial Distress on Financial Statement Fraud

Net income is often the concern of investors, creditors and others to evaluate the company's performance so that reported profits have been manipulated (Qawqzeh, Endut, Rashid & Dakhlah, 2020). Research shows that when companies are under pressure and face many financial problems, management has the motivation to distort profits (Li, 2020). Manipulated net income is done to cover up poor financial performance as a result of financial distress.

METHOD

4.1. Research Design

Research design in quantitative methods includes systematic planning to collect, analyze and interpret numerical data (Wajdi, 2024). Quantitative methods are chosen with the aim of identifying and measuring relationships between variables. In this study, the research design used is cross-sectional to analyze the influence of the variable factors studied at a certain point in time with quantitative data. Quantitative data selected based on research variables in the form of dependent and independent variables. The dependent variable in this study is financial statement fraud and the independent variables are financial stability, external pressure, opportunity, rationalization and financial distress.

4.3. Population, Sample and Sampling Techniques

The population in this study is companies in the real estate industry at PT. Indonesia Stock Exchange in 2018 to 2022 with research data derived from downloading each company's website, the website www.idx.co.id and the website emiten.kontan.co.id with a total of 33 companies in a period of 5 years so that a total of 165. This study uses purposive sampling, which is sampling based on certain criteria.

4.3. Data Analysis Techniques

The analysis method used in this study is regression analysis on quantitative data with panel data on Eviews software version 13. Regression analysis is used to estimate the population average of the dependent variable based on the known value of the independent variable. The result of the regression is the coefficient obtained in the equation to minimize deviations and optimize the correlation between the actual value and the estimated value of the dependent variable based on the data (Ghozali & Ratmono, 2017).

RESULTS AND DISCUSSION

5.1. Descriptive Statistical Analysis

Descriptive statistical analysis is the analysis of data on minimum, maximum, average and standard deviation values of the variables studied. The variables used in the descriptive analysis in this study are: Financial Statement Fraud (FSF), Financial Stability (FS) as measured by Asset Change (ACHANGE), External Pressure (EP) as measured by Leverage (LEV), Opportunity (OP) as measured by Number of Independent Director (NID), Rationalization (RZ) as measured by Auditor Change (AUDCG) and Financial Distress (FD).

Table 5.1. Descriptive Statistical Analysis

Description	FSF (Y)	FS (X1)	EP (X2)	OP (X3)	RZ (X4)	FD (X5)
Mean	-1.58	0.03	0.41	0.08	0.46	1.39
Median	-1.80	0.02	0.38	0.00	0.00	0.94
Maximum	4.81	1.07	1.11	0.50	1.00	11.08
Minimum	-5.04	-0.33	0.01	0.00	0.00	-1.06
Std. Dev.	1.27	0.13	0.19	0.13	0.49	1.80
Observations	165	165	165	165	165	165

Based on table 5.1. above, it can be seen that the number of research observations is 165 which are obtained from the financial and annual reports of Real Estate companies listed on the Indonesia Stock Exchange in 2018 - 2022. The researcher also conducted statistical frequency processing on the rationalization variable with its measurement of auditor change and opportunity with its measurement of Number of Independent Director (NID). The purpose of statistical frequency processing is to conduct further discussion on the comparison of frequencies between the samples studied. The processing is shown in tables 5.2 and 5.3:

5.2 Auditor Change Frequency Statistics Table

	Frequency	Percent	Valid Percent	Cumulative Percent
AUDCG	76	46.06	46.06	46.06
NON AUDCG	89	53.94	53.94	100.00
Total	165	100	100	

Source: Secondary Processing Results by Researchers

From the table above, it can be concluded that out of 165 samples, 76 samples changed auditors or 46.06% and 89 samples or 53.94% did not change auditors. The percentage of auditor changes shows a value approaching half of the total samples where auditor changes occurred during the 5 years of observation (2018-2022).

5.3 Frequency Statistics Table of Number of Independent Directors

	Frequency	Percent	Valid Percent	Cumulative Percent
Does not have an Independent Director	110	66.67	66.67	66.67
Have Independent Director	55	33.33	33.33	100.00
	165	100	100	

Source: Secondary Processing Results by Researchers

From the table above, it can be concluded that out of 165 samples, 110 samples do not have independent directors or 66.67% and 55 samples or 33.33% have independent directors. This percentage shows that there are more samples that do not have independent directors in the company during the 5 years of observation (2018-2022).

5.2. Multicollinearity Test

To conduct a multicollinearity test, a correlation test and Variance Inflation Factors (VIF) are performed to test the consistency of the results. In the correlation test, the variable is declared free from multicollinearity if it is below 1,000 and the VIF of the variable is declared free from multicollinearity if it is below 10. The results of the Correlation Test research are shown in table 5.4 with the results of the correlation between variables not exceeding 0.9 or below 1,000, which means that the independent variables are free from multicollinearity.

Table 5.4 Correlation Test

	FS	EP	OP	RZ	FD
FS	1	0.014310	0.179537	-0.098094	0.062405
EP	0.014310	1	-0.087949	0.003560	-0.451272
OP	0.179537	-0.087949	1	0.019743	-0.116828
RZ	-0.098094	0.003560	0.019743	1	-0.004641
FD	0.062405	-0.451272	-0.116828	-0.004641	1

The results of the Variance Inflation Factors research test are shown in table 5.5 with VIF results not exceeding 10, which means that the independent variables are free from multicollinearity.

Table 5.5 Variance Inflation Factors

Variance Inflation Factors

Samples: 1 165

Included observations: 165

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
Financial Stability	0.499938	1.142750	1.059106
External Pressure	0.286753	6.842047	1.296706
Opportunity	0.495289	1.498048	1.084599
Rationalization	0.035488	1.875080	1.011407
Financial Distress	0.003527	2.097093	1.312771
C	0.096615	11.08284	

5.3. Chow Test

The Chow test aims to determine the best estimation model between the Common Effect Model (CEM) or the Fixed Effect Model (FEM) in estimating panel data. The basis for decision making in the Chow test is seen from the cross-section probability value F. If the cross-section probability value $F < 0.05$, then the selected model is the Fixed Effect Model (FEM). Table 5.6 shows the results that the cross-section probability F is 0.0007, where the value is < 0.05 . The conclusion from the results of this test is that the selected model is the Fixed Effect Model (FEM), so it is continued with the Hausman test.

Table 5.6 Chow Test

Redundant Fixed Effects Tests

Equation: Untitled

Cross-section fixed effects test

Effects Test	Statistics	df	Prob.
Cross-section F	2.257737	(32,127)	0.0007
Cross-section Chi-square	74.309584	32	0.0000

5.4. Hausman Test

The Hausman test is defined as a test to determine the best estimation model between the Fixed Effect Model (FEM) and the Random Effect Model (REM) in estimating panel data. The Hausman test is conducted after the conclusion in the chow test is obtained by referring to the random cross-section probability value. If the random cross-section probability value is > 0.05 , then the selected model is the Random Effect Model (REM). If the random cross-section probability value is < 0.05 , then the selected model is the Fixed Effect Model (FEM). Table 5.7 shows that the random cross-section probability value is 0.0035 < 0.05 so that the selected model is the Fixed Effect Model (FEM).

Table 5.7 Hausman Test

Correlated Random Effects - Hausman Test

Equation: Untitled

Cross-section random effects test

Test Summary	Chi-Sq. Statistic	Chi-Sq. df	Prob.
Random cross section	17.574684	5	0.0035

5.5. Test of Determination Coefficient

The determination coefficient test is conducted to determine how much the independent variable is able to explain its dependent. The higher the R-squared value means the better the proposed research prediction model. Table 5.8 shows that the R-squared value is 0.45, which means that 45% of the independent variables have an influence on the dependent variable. While 55% is influenced by other independent variables that are not tested in this study.

Table 5.8 Coefficient of Determination

Dependent Variable: FSF

Method: Panel Least Squares

Sample: 2018 2022

Periods included: 5

Cross-sections included: 33

Total panel (balanced) observations: 165

Effects Specification			
Cross-section fixed (dummy variables)			
R-squared	0.451445	Mean dependent variable	-1.581009
Adjusted R-squared	0.291629	SD dependent var	1.272947

The results of the analysis of the R-squared value show that the independent variables, namely: financial stability, external pressure, opportunity, rationalization and financial distress are not fully able to influence financial statement fraud as the dependent variable because the value shown is only 45%. The independent variables used in the study come from internal company factors, so there is a possibility that external company factors can also influence the dependent variable.

5.6. Hypothesis Testing

Table 5.9 T-Test Results

Dependent Variable: FSF

Method: Panel Least Squares

Sample: 2018 2022

Periods included: 5

Cross-sections included: 33

Total panel (balanced) observations: 165

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FS	0.817004	0.754056	1.083479	0.2806

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EP	-1.555002	1.450883	-1.071762	0.2859
OP	4.256768	0.961067	4.429210	0.0000
RZ	-0.356929	0.176511	-2.022134	0.0453
FD	0.258547	0.073350	3.524851	0.0006
C	-1.532453	0.664022	-2.307833	0.0226

Based on the results of the t-test, it is known that:

1. The coefficient value of 0.8170 has a positive value indicating that the independent variable of financial stability measured by ACHANGE (X1) shows a unidirectional influence on the dependent variable of Financial Statement Fraud. The probability value of $0.2806 > 0.05$ indicates that financial stability has no effect on Financial Statement Fraud, so H1 is rejected.
2. The coefficient value of -1.5550 has a negative value indicating that the independent variable external pressure measured by LEV (X2) shows an opposite effect on the dependent variable Financial Statement Fraud. The probability value of $0.2859 > 0.05$ indicates that external pressure has no effect on Financial Statement Fraud, so H2 is rejected.
3. The coefficient value of 4.2567 has a positive value indicating that the independent variable opportunity measured by NID (X3) shows a unidirectional influence on the dependent variable Financial Statement Fraud. The probability value of $0.0000 < 0.05$ indicates that opportunity has an effect on Financial Statement Fraud, so H3 is accepted.
4. The coefficient value of -0.3569 has a negative value indicating that the independent variable rationalization measured by AUDCG (X4) shows an opposite influence on the dependent variable Financial Statement Fraud. The probability value of $0.0453 < 0.05$ indicates that rationalization has an effect on Financial Statement Fraud, so H4 is accepted.
5. The coefficient value of 0.2585 has a positive value indicating that the independent variable Financial Distress (X5) measured by the Altman Z Score shows a unidirectional influence on the dependent variable Financial Statement Fraud. The probability value of $0.0006 < 0.05$ indicates that Financial Distress has an effect on Financial Statement Fraud, so H5 is accepted.

DISCUSSION

A. The Influence of Financial Stability on Financial Statement Fraud

The probability result of the influence of financial stability measured by asset change on Financial Statement Fraud is 0.2896 which is a value greater than the significance level of 0.05 and the coefficient value is 0.8170 which indicates a positive value. In this case, it can be concluded that financial stability measured by asset change does not have a significant influence on Financial Statement Fraud. Based on the sample data, it was found that 113 out of a total of 165 samples had asset value changes below 5% between the years studied. So it can be concluded that more samples do not have significant asset changes each year during the observation period (2018-2022). Insignificant asset changes have an impact on the absence of pressure faced by management.

B. The Influence of External Pressure on Financial Statement Fraud

The probability result of the influence of external pressure measured by leverage on Financial Statement Fraud is 0.2859 which is a value greater than the significance level of 0.05 and the coefficient value is -1.5550 which indicates a negative value. In this case, it can be concluded that external pressure measured by leverage does not have a significant influence on Financial Statement Fraud. Fathurrizqi & Nahar (2021) in their research revealed that currently creditors do not consider the leverage ratio in providing loans, but also because of the good relationship and high level of trust in the debtor. This statement can be proven in one of the research samples from 165 total samples with an average leverage ratio of 41%, NIRO had a leverage ratio of 45.02% in 2021, which means that this figure is above the average for similar industries with third-party debt of 147 billion. In 2022, NIRO had an increase in leverage ratio to 52.91%, one of the causes of which was the increase in third-party debt to 299 billion.

C. The Influence of Opportunity on Financial Statement Fraud

The probability result of the influence of opportunity measured by the number of independent directors on Financial Statement Fraud is 0.0000 which is a value smaller than the significance level of 0.05 and the

coefficient value is 4.2567 which indicates a positive value. In this case, it can be concluded that the opportunity measured by the number of independent directors has a significant positive influence on Financial Statement Fraud. Opportunity to commit fraud occurs because of ineffective supervision within the company. Increased supervision, especially for internal companies, can be increased by having an independent director. In accordance with the Financial Services Authority Regulation in 2014 Number: 33/POJK.04/2014, an independent director functions as a supervisor in the company. An independent director will implement the duties, functions and responsibilities of an independent director in terms of supervising management of activities carried out to prevent fraud. So that with the presence of an independent director, internal supervision in the company will increase and provide a low opportunity for management to commit fraud.

D. The Influence of Rationalization on Financial Statement Fraud

The probability result of the influence of rationalization measured by auditor change on Financial Statement Fraud is 0.0453 which is a value smaller than the significance level of 0.05 and the coefficient value is -0.356929 which indicates a negative value. In this case, it can be concluded that rationalization measured by auditor change has a significant negative influence on Financial Statement Fraud. Rationalization can arise because the perpetrator seeks justification for his actions. A person feels that what he did was right even though it was a fraudulent act because of something that the person should have gotten.

E. The Influence of Financial Distress on Financial Statement Fraud

The probability result of the influence of financial distress measured by Altman Z Score on Financial Statement Fraud is 0.0006 which is a value smaller than the significance level of 0.05 and the coefficient value is 0.2585 which indicates a positive value. In this case, it can be concluded that financial distress measured by Altman Z Score has a significant positive influence on Financial Statement Fraud. Net income and accounts on the financial position statement are often of concern to investors, creditors and others to evaluate the company's performance so that the reported values have been manipulated. Manipulated net income is done to cover up poor financial performance as a result of financial distress. Accounts on the financial position statement are manipulated to cover up the actual situation. Tarighi, Hosseiny, Abbaszadeh, Zimon & Haghighat (2022) found that companies experiencing financial distress are more likely to be involved in financial statement fraud.

CONCLUSION

6.1. Research Results

This study aims to identify and analyze the impact of financial stability, external pressure, opportunity, rationalization and financial distress on financial statement fraud in Real Estate companies listed on the Indonesia Stock Exchange in 2018 - 2022. Based on the results of the study and discussion, the following conclusions can be drawn:

1. Financial stability measured by asset change (ACHANGE) does not have a significant effect on financial statement fraud. So the first hypothesis (H1) is rejected. This shows that the company's financial stability by looking at asset changes cannot be a factor in considering that a company is committing fraud.
2. External pressure measured by leverage (LEV) does not have a significant effect on financial statement fraud. So the second hypothesis (H2) is rejected. This shows that external pressure faced by management does not cause the company to commit fraud with a low leverage ratio value.
3. Opportunity as measured by the number of independent directors (NID) has a significant positive effect on financial statement fraud. So the third hypothesis (H3) is accepted. The positive direction of the coefficient indicates that the more opportunities management has, the higher the possibility of financial statement fraud. Independent directors are tasked with supervising management behavior as stated in the Financial Services Authority Regulation of 2014 Number: 33/POJK.04/2014. If management has the desire to commit fraud, the company will reduce independent directors to increase its opportunities.
4. Rationalization measured by auditor change (AUDCG) has a significant negative effect on financial statement fraud. So the fourth hypothesis (H4) is accepted. The negative direction of the coefficient indicates that the less rationalization owned by management, the higher the possibility of financial statement fraud.

5. Financial Distress measured by Altman Z Score has a significant positive effect on financial statement fraud. So the fifth hypothesis (H5) is accepted. The positive direction of the coefficient indicates that the higher the possibility of a company going bankrupt, the higher the possibility of financial statement fraud.

6.2. Limitations

1. This research sample will be more visible if it can classify fraudulent and non-fraudulent companies based on the Securities Under Special Monitoring data on the Indonesia Stock Exchange (IDX). However, the IDX has not been able to provide the data from 2018 according to the year of research observation.
2. Although the opportunity variable in this study with the measurement of the number of independent directors has a significant effect, it would be better if the measurement of this variable also considers the incentives received by independent directors with the same average company size and industry. This is a consideration that independent directors carry out supervision based on their duties, not on the incentives received, so that supervision of management behavior is more optimal. During the observation year, very few companies disclosed the nominal incentives received by independent directors.

6.3. Implications

Based on the limitations and results of this study, the implications that can be given are as follows:

1. Practical implications

- a. Based on this study, the opportunity variable measured by the number of independent directors is one of the factors causing the possibility of financial statement fraud. Fraud cannot be committed if there is no opportunity, so management who has the intention to commit fraud will try to find opportunities to realize their unethical behavior. Independent directors as supervisors of management behavior will minimize the opportunity for fraud to occur. Therefore, to minimize the opportunity for fraud to occur, it would be better if a company has independent directors, especially those who have abilities in the financial field.
- b. Based on this study, the rationalization variable is measured by auditor change as one of the factors causing the possibility of financial statement fraud. Management seeking justification for its actions will try to realize its desires even with fraud. Auditors assigned to audit the company's financial statements will be a means for management to realize their rationalization actions by establishing good relationships outside of work so that auditors tend to feel unable to reject management's desires to commit fraud.
- c. Based on this study, the financial distress variable is measured by the Altman Z Score as one of the factors causing the possibility of financial statement fraud. Companies that are on the verge of bankruptcy and want to continue their business will make maximum efforts, even some companies carry out unethical behavior to continue their business, namely manipulating financial statements.

2. Theoretical implications

- a. The results of this study support 2 factors, namely opportunity and rationalization of the 3 factors expressed by Cressey (1953) in the fraud triangle theory and support the bankruptcy theory. The fraud triangle theory reveals the factors that cause fraud, while the bankruptcy theory reveals how to categorize a company in bankruptcy through financial ratios that can be assessed.
- b. In the financial stability variable, researchers limit the measurement with asset change with the results of the study not having a significant effect. Therefore, it is recommended for further researchers to use other measuring instruments such as Sales Change, namely assessing changes in sales of an industry against other industries, Gross Profit Margin (GPM), Sales on Total Assets (SALTA) and Sales on Account Receivable (SALAR).
- c. In the external pressure variable, researchers limit the measurement with leverage with the results of the study not having a significant effect. Therefore, it is recommended in further research to use FINANCE, namely operating cash flow expenditure minus the average capital expenditure on the company's current assets. Dechow (1996) revealed that the average capital expenditure was carried out for 3 years before the manipulation of financial statements. So Skousen, Smith & Wright (2009) provide an assessment that if the FINANCE ratio approaches zero, the greater the need for external financing.
- d. For further researchers, it is expected to use research with the latest period and use additional requirements in assessing the number of independent directors with an educational background in finance.

REFERENCES

- Afrizalita, Desi, Cheisviyanny, Charoline. (2023). The Influence of Supervisor Relationship and Machiavellian Traits on Dysfunction Audit Behavior. *Journal of Accounting Exploration (JEA)*, 5(3), 1181-1191. Retrieved from <http://jea.ppj.unp.ac.id/index.php/jea/article/view/587>
- Alfarago, D., Syukur, M. & Mabur, A. (2023). The Likelihood of Fraud from The Fraud Hexagon Perspective: Evidence from Indonesia. *ABAC Journal*, 43(1), 34-51. Retrieved from <http://www.assumptionjournal.au.edu/index.php/abacjournal/article/view/7183>
- Altman, Edward I. (1968). Financial Ratios, Discriminant Analysis and The Prediction of Corporate Bankruptcy. *The Journal of Finance*, 23(4). Retrieved from https://www.jstor.org/stable/2978933?casa_token=NQKw3yNjzFIAAAAA%3AVUeKAjwZtdeS2pkgemo6dTnwPlvsy6SsTEUeDPtJCoMPDQDihXUh77eBXhse_tMDXryqQ9Paybe_p621FNuy5ggvoRAiVr3XpITGa033tQY1cJ-fiVvD4g
- Altman, EI, Danovi, Alessandro, Falini, Alberto. (2010). Z Score Models' Application to Italian Companies Subject to Extraordinary Administration. *The Journal of Applied Finance*, 23(1). Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2686750
- Andrew, Candy & Robin. (2022). Detecting Fraudulent Financial Statements Using Fraud SCORE Model and Financial Distress. *International Journal of Economics, Business and Accounting Research (IJEBAR)*, 6(1), 211-222. Retrieved from <https://www.jurnal.stic-aas.ac.id/index.php/IJEBAR/article/view/4394>
- Association of Certified Fraud Examiners. 2022. Occupational Fraud 2022: A Report to The Nations. Association of Certified Fraud Examiners.
- Aviantara, Ryan. (2023). Scoring the Financial Distress and The Financial Statement Fraud of Garuda Indonesia with "DDCC" as The Financial Solutions. *Journal of Modeling in Management*, 18(1), 1-16. Retrieved from https://www.emerald.com/insight/content/doi/10.1108/jm2-01-2020-0017/full/html?casa_token=WR7q3WIRUvsAAAAA%3AwUZSrj8T76NrSdPRyt3EEDgJDp8P6ypfKv2ZXDZDZiVi7INn8Lu2vpp9whNJjVJ3zO5fHmeKYD8dPoaAbcQSeiJ88aesewVOeaI-EpPhJn7FguWHOETN2w
- Beasley, Mark S. (1996). An Empirical Analysis of the Relation Between the Board of Directors Composition and Financial Statement Fraud. *The Accounting Review*, 71(4), 443-465. Retrieved from https://www.jstor.org/stable/248566?casa_token=hkPiHVw9LlgAAAAA%3Ask_2pTAvNKxjCXyJbXjaLW7z_oL-xfLsCWTMc-XNu3PytmWrnzJulF87uYouRqajFS3eF5bDSV8NvhY0R8g_c7ISV-yKMqEmWtM88kVWJNKJldmkn2nQ
- Beaver, W. H. (1966). Financial Ratios as Predictors of Failure. *Journal of Accounting Research*. Retrieved from https://www.jstor.org/stable/2490171?casa_token=gdnqcdH_uuIAAAAA%3AbHs71YxI1C5Iv1myZkt0q7acCZPIqPhsg64V_dJkMw2Uq5oBWaMVpkJXh7zusk9eUDlkcqStfRsUvfu5wK2LB8m8qiQgqxhiBhOkUCyatqfMcfYek0t8Q

- Beneish, M.D. (1999). The Detection of Earnings Manipulation. *Financial Analysts Journal*, 55(5), 24-36. Retrieved from https://www.tandfonline.com/doi/abs/10.2469/faj.v55.n5.2296?casa_token=e9qBesRP44UAAAAA:U58OdmjpybAS10ez0Jtwst6ItWsDbD9B2rPnUvBQF5lQrrgSeYhb8jSmwZ2nEQWUM4jjqZT_I2yt39X
- Cressey, D. R. (1953). *Other People's Money: A Study in the Social Psychology of Embezzlement*. Glencoe, Ill.: Free Press.
- Damayanti, RE & Suryani, E. (2019). The Influence of Financial Stability, External Pressure, Ineffective Monitoring and Audit Opinion on Indications of Financial Report Fraud (Study on Manufacturing Companies in the Basic and Chemical Industry Sectors Listed on the Indonesia Stock Exchange in 2013-2017. *E-Proceeding of Management*, 6 (2), 3141-3147. Retrieved from <https://openlibrarypublications.telkomuniversity.ac.id/index.php/management/article/view/10133>
- Farias, FZ, Martinez, Maria del CV, Cervantes, Pedro AM (2021). Explanatory Factors of Business Failure: Literature Review and Global Trends. *Sustainability*, 13, 1-25. Retrieved from <https://www.mdpi.com/2071-1050/13/18/10154>
- Fatkurrizqi, MA & Nahar, A. (2021). Fraud Triangle Analysis in Determining the Occurrence of Financial Statement Fraud. *Financial: Journal of Accounting*, 7(1), 14-25. Retrieved from <https://financial.ac.id/index.php/financial/article/view/221>
- Fitri, FA, Syukur, M. & Justisa, G. (2019). Do The Fraud Triangle Components Motivate Fraud in Indonesia? *Australasian Accounting, Business and Finance Journal*, 13(4), 63-72. Retrieved from https://scholar.google.com/scholar?hl=id&as_sdt=0%2C5&q=Do+The+Fraud+Triangle+Components+Motivate+Fraud+in+Indonesia%3F&btnG=
- Gusni, Gusni, Wiludjeng, Sri, Wiludjeng, Sri, Silviana. (2019). Predicting Financial Distress: A Case Study of Indonesian Coal Firm. *Global Business and Management Research: An International Journal*, 11(1), 186. Retrieved from <https://www.proquest.com/openview/0478cc4c62048e789174e9dc8e2e31a1/1?cbl=696409&pq-origsite=gscholar>
- Girau, E., A., Bujang, Imbarine & Jidwin, AP (2022). Corporate Governance Challenges and Opportunities in Mitigating Corporate Fraud in Malaysia. *Journal of Financial Crime*, 29(2), 620-638. Retrieved from https://www.emerald.com/insight/content/doi/10.1108/jfc-02-2021-0045/full/html?casa_token=mUfZyTrwyogAAAAA%3AcONx8CHhL2YVlg_T9WGI9IU_Tywn0fZRDrPaLglar39zK3DfewGXZ_IOxZSOGV54m4MbIosMXTj0rgAPSiL5yLbr27HTQ76SKtVCfavLW1qsb55oBgqwXA
- Ghozali, Imam & Ratmono, Dwi (2017). *Multivariate Analysis and Econometrics. Theory, Concept and Application with Eviews 10. Edition 2*. Diponegoro University Publishing Agency.
- Hakami, TA, Rahmat, MM, Yacoob, MH & Saleh, NM (2020). Fraud Detection Gap between Auditor and Fraud Detection Models: Evidence from Gulf Cooperation Council. *Asian Journal of Accounting and Governance*, 13(1), 1-13. Retrieved from https://scholar.google.com/scholar?hl=id&as_sdt=0%2C5&q=Fraud+Detection+Gap+between+Auditor+and+Fraud+Detection+Models%3A+Evidence+from+Gulf+Cooperation+Council&btnG=
- Halteh, Khaled. (2023). Preempting Fraud: A Financial Distress Prediction Perspective on Combating Financial Crime. *Journal of Money Laundering Control*, 26(6), 1194-1202. Retrieved from https://www.emerald.com/insight/content/doi/10.1108/jmlc-01-2023-0013/full/html?casa_token=vu1HZrFtu50AAAAA%3A1HDrEp43S96FnLPksZ_uHublyM9DVEb63y6w3CaTamJaAEgjTJJcwEalHtB_Uj7ORUp5rLMKqxePaKu4UUyRA0dFu6RvEB1CbinVoOyM3lNMKGHmPdS39Q
- Ikbal, Muhammad. (2020). Explores The Specific Context of Financial Statement Fraud Based on Empirical from Indonesia. *Universal Journal of Accounting and Finance*, 8(2), 29-40. Retrieved from https://scholar.google.com/scholar?hl=id&as_sdt=0%2C5&q=Explores+The+Specific+Context+of+Financial+Statement+Fraud+Based+on+Empirical+from+Indonesia&btnG=
- Irwandi, SA, Faisal, IG & Pamungkas, ID (2019). Fraudulent Financial Statement Detection: Beneish M-Score Model. *WSEAS Transactions on Business and Economics*, 16, 271-281. Retrieved from https://scholar.google.com/scholar?hl=id&as_sdt=0%2C5&q=Detection+Fraudulent+Financial+Statement%3A+Beneish+M-Score+Model&btnG=

- Izzalzurny, TR, Subroto, Bambang & Ghofar, Abdul. (2019). Relationship Between Financial Ratio and Financial Statement Fraud Risk Moderated by Auditor Quality. *International Journal Research in Business and Social Science*, 8(4), 2147-4478. Retrieved from <https://www.ssbfnct.com/ojs/index.php/ijrbs/article/view/281>
- Khaksar, J., Salehi, M. & Dashtbayaz, M.L. (2021). The Relationship Between Auditor Characteristics and Fraud Detection. *Journal of Facilities Management*, 20(1), 79-101. Retrieved from https://www.emerald.com/insight/content/doi/10.1108/jfm-02-2021-0024/full/html?casa_token=8la_U4cDkmsAAAAA%3A5to7Vo-7XJmp8QxDpGDVL1rVPN9jLHY0gt_9t3xgpCzGLDVMmoTqglu4VfpVO9HqZqWs_8WCry3_5di1_DI_Vnw3kagGd0jg2Z9ELyYStHQQgPj0DA6mQ
- Kukreja, G., Guota, S. M., Sarea, A. M. & Kumaraswamy, S. (2020). Beneish M-Score and Altman Z-Score as A Catalyst for Corporate Fraud Detection. *Journal of Investment Compliance*, 21(4), 231-241. Retrieved from https://www.emerald.com/insight/content/doi/10.1108/joic-09-2020-0022/full/html?casa_token=ubRvNMxf4noAAAAA%3AXUGEnJqi80BEI8dofh8utU4gF9KLNhif8q3odThbeY6sQwrmbWrtFU3JBTn029hT8aTcNFFO3g936n0Oat-3DAQyhGVIO4GOXggXHHJfqWefBPnJrDA
- Lagasio, Valentina, Brogi, Marina, Galluci, Carmen, Santulli, Rosalia. (2023). May Board Committees Reduce the Probability of Financial Distress? A survival Analysis on Italian Listed Companies. *International Review of Financial Analysis*, 87. Retrieved from <https://www.sciencedirect.com/science/article/abs/pii/S1057521923000777>
- Lastanti, SH, Murwaningsari, Etty & Umar, Haryono. (2022). The Effect of Hexagon Fraud on Fraud Financial Statement with Governance and Culture as Moderating Variables. *Accounting, Auditing & Information Research Media*, 22(1), 143-156. Retrieved from <https://www.e-journal.trisakti.ac.id/index.php/mraai/article/view/13533>
- Li, Yuanhui, Li, Xiao, Xiang, Erwei & Djajadikerta, H.G. (2020). Financial Distress, Internal Control, and Earnings Management: Evidence from China. *Journal of Contemporary Accounting & Economics*, 16, 1-18. Retrieved from https://www.sciencedirect.com/science/article/pii/S1815566920300242?casa_token=VRkofinPQhAAAAA:UXgT9IZV4ROlv0IMpSvv87WS1X9kEsR3fvuq1aF-rVjNsiAA7frU6kvFN90CQ1w0o9BSbSk-Ei1Wwg
- Liu, Y., Wu, B. & Zhang, M. (2023). Can Independent Directors Identify The Company's Risk of Financial Statement Fraud: Evidence from Predicting Financial Fraud Based on Machine Learning. *China Journal of Accounting Studies*, 11(3), 465-492. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/21697213.2023.2239670>
- Lokanan, Mark. (2021). Applying Four Quantitative Prediction Techniques to Detect Fraud in Financial Statements. *Journal of Forensic and Investigative Accounting*, 13, 362-383. Retrieved from https://scholar.google.com/scholar?hl=id&as_sdt=0%2C5&q=Applying+Four+Quantitative+Prediction+Technique+s+to+Detect+Fraud+in+Financial+Statements&btnG=
- Maninggarjati, ER, Wulaningrum, Ratna, Fitri, Syukur, Justisaana, Rahmawati & Putra, DT (2022). Financial Distress Analysis of Coal Mining Companies. *Advances in Social Science, Education and Humanities Research*, 647, 482-486. Retrieved from <https://www.atlantis-press.com/proceedings/icast-ss-21/125971028>
- Miller, K. D. & Reuer, Jeffrey (1996). Measuring Organizational Downside Risk. *Strategic Management Journal*, 17(2). Retrieved from [https://onlinelibrary.wiley.com/doi/abs/10.1002/\(SICI\)10970266\(199611\)17:9%3C671::AID-SMJ838%3E3.0.CO;2-1](https://onlinelibrary.wiley.com/doi/abs/10.1002/(SICI)10970266(199611)17:9%3C671::AID-SMJ838%3E3.0.CO;2-1)
- Nugroho, DS & Diyanti, Vera. (2022). Hexagon Fraud in Fraudulent Financial Statements: The Moderating Role of Audit Committee. *Indonesian Journal of Accounting and Finance*, 19(1), 46-67. Retrieved from <https://scholarhub.ui.ac.id/jaki/vol19/iss1/3/>
- Nuristya, ER & Ratmono, Dwi. (2022). The Role of Audit Report Lag in Mediating The Effect of Auditor Switching and Financial Distress on Financial Statement Fraud. *Sriwijaya International Journal of Dynamic Economics and Business*, 6(2), 165-184. Retrieved from <https://sijdeb.unsri.ac.id/index.php/SIJDEB/article/view/323>

- Nejad, MY, Khan, AS & Othman, J. (2024). A Panel Data Analysis of the Effect of Audit Quality on Financial Statement Fraud. *Asian Journal of Accounting Research*, 9(4), 422-445. Retrieved from <https://www.emerald.com/insight/content/doi/10.1108/ajar-04-2023-0112/full/html>
- Ozcelik, Hakan. (2020). An Analysis of Fraudulent Financial Reporting Using The Fraud Diamond Theory Perspective: An Empirical Study on The Manufacturing Sector Companies Listed on The Borsa Istanbul. *Economics and Financial Analysis*, 102, 131-153. Retrieved from <https://www.emerald.com/insight/content/doi/10.1108/s1569375920200000102012/full/html>
- Pranadipta, Ruth & Natsir, Khairina. (2023). Financial, Non-Financial, and Macro-Economic Factors That Affect The First Day Profit Rate When Conducting an Initial Public Offering. *International Journal of Application on Economics and Business (IJAEB)*, 1, 276-289. Retrieved from https://scholar.google.com/scholar?hl=id&as_sdt=0%2C5&q=FINANCIAL%2C+NON-FINANCIAL%2C+AND+MACRO-ECONOMIC+FACTORS+THAT+AFFECT+THE+FIRST+DAY+PROFIT+RATE+WHEN+CONDUCTING+INITIAL+PUBLIC+OFFERING&btnG=
- Qiu, S., He, H. C. & Luo, Y. S. (2019). The Value of Restatement to Fraud Prediction. *Journal of Business Economics and Management*, 20(6), 1210-1237. Retrieved from <https://ijspm.vgtu.lt/index.php/JBEM/article/view/10489>
- Qawqzeh, HK, Endut, WA, Rashid, N., & Dakhlah, MM (2020). Impact of The External Auditor's Effectiveness on The Financial Reporting Quality: The Mediating Effect of Audit Quality. *Journal of Critical Reviews*, 7(6), 1197-1208. Retrieved from https://scholar.google.com/scholar?hl=id&as_sdt=0%2C5&q=Impact+of+The+External+Auditor%E2%80%99s+Effectiveness+on+The+Financial+Reporting+Quality%3A+The+Mediating+Effect+of+Audit+Quality&btnG=
- Rahman, M. J. & Jie, X. (2022). Fraud Detection Using Fraud Triangle Theory: Evidence from China. *Journal of Financial Crime*, 31(1), 101-118. Retrieved from https://www.emerald.com/insight/content/doi/10.1108/jfc-09-2022-0219/full/html?casa_token=F8QVJyeAKjEAAAAA%3AWEbMfq0-l6S6emON1HnuwoQbMviVRgYpm0EJUFR8_bIFaUYFDDmsLrYDfREP8zfc32-IyUIYoDwXlyi0fbiB3Q8G1lwtkdVWDDTosKLQCa1NufRVaJfg
- Ratmono, Dwi, Darsono, Darsono & Cahyonowati, Nur. (2020). Financial Statement Fraud Detection with Beneish M-Score and Dechow F-Score Model: An Empirical Analysis of Fraud Pentagon Theory in Indonesia. *International Journal of Financial Research*, 11(6), 154-164. Retrieved from https://scholar.google.com/scholar?hl=id&as_sdt=0%2C5&q=Financial+Statement+Fraud+Detection+With+Beneish+M-Score+and+Dechow+F-Score+Model%3A+An+Empirical+Analysis+of+Fraud+Pentagon+Theory+in+Indonesia.&btnG=
- Sadique, RBM, Ismail, AM, Roudaki, J., Alias, N. & Clark, MB (2019). Corporate Governance Attributes in Fraud Deterrence. *International Journal of Financial Research (IJFR)*, 10(3), 51-62. Retrieved from <https://researcharchive.lincoln.ac.nz/entities/publication/b2fc590f-38ac-4ed7-a166-70721446071b>
- Sadjiarto, Arja, Jonathan, Enrico & Santoso, PJ (2023). Financial Distress, Fraud Reasons and Fraudulent Financial Reporting Indication. *Proceedings of the Ninth Padang International Conference on Economics Education, Economics, Business and Management, Accounting and Entrepreneurship (PICEEBA)*. Retrieved from <https://www.atlantispress.com/proceedings/piceeba-22/125988028>
- Safiq Muhammad & Seles, Wike. (2019). The Effects of External Pressures, Financial Targets and Financial Distress on Financial Statement Fraud. *Advances in Economics, Business and Management Research*, 73, 57-61. Retrieved from <https://www.atlantispress.com/proceedings/aicar-18/55913634>
- Saleh, MAS, Aladwan, Mohammad, Alsinglawi, Omar, & Almari, MOS (2021). Predicting Fraudulent Financial Statements Using Fraud Detection Models. *Academy of Strategic Management*, 20(3), 1-17. Retrieved from https://scholar.google.com/scholar?hl=id&as_sdt=0%2C5&q=Predicting+Fraudulent+Financial+Statements+Using+Fraud+Detection+Models&btnG=
- Sandria, Ferry. (2021). A Series of Financial Report Scandals in the Indonesian Stock Market, Indofarma-Hanson. *CNBC Indonesia*. Accessed via:

- <https://www.cnbcindonesia.com/market/20210726191301-17-263827/deretan-skandal-lapkeu-di-pasar-saham-ri-indofarma-hanson/3>
- Sari, IP, Tjandra, Timotius, Firmansyah, Amrie & Trisnawati, Estralita. (2021). Earnings Management Practices in Indonesia: Audit Committee, Independent Commissioner, Operating Cash Flow. *Journal of Accounting Science*, 13(2), 310-322. Retrieved from <https://ejournals.umn.ac.id/index.php/Akun/article/view/2376>
- Skousen, C. J., Smith, K. R. & Wright, C. J. (2009). Detecting and Predicting Financial Statement Fraud: The Effectiveness of The Fraud Triangle and SAS No. 99. *Financial Economics*, 13, 53-81. Retrieved from [https://www.emerald.com/insight/content/doi/10.1108/s15693732\(2009\)0000013005/full/html](https://www.emerald.com/insight/content/doi/10.1108/s15693732(2009)0000013005/full/html)
- Sood & Bhushan (2022). Factors Impacting Banking Frauds in India: a Conceptual Framework. *International Journal of Business and Globalisation*, 31(4). Retrieved from <https://www.inderscienceonline.com/doi/abs/10.1504/IJBG.2022.127129>
- Sunarsip. (2021). Property Outlook 2022 and Its Growth Prerequisites. CNBC Indonesia. Retrieved from <https://www.cnbcindonesia.com/opini/20211220113050-14-300546/outlook-properti-2022-dan-prasyarat-pertumbuhannya>
- Suprianta, Alviani. (2019). The Role of Independent Directors in Realizing Good Corporate Governance. *Jurnal Yuridis*, 6(1), 67-93. Retrieved from https://scholar.google.com/scholar?hl=id&as_sdt=0%2C5&q=The+Role+of+Independent+Directors+in+Realizing+Good+Corporate+Governance&btnG=
- Syahria, R., Kusumawati, F. & Erwanto, AD (2019). Detecting Financial Statement Fraud Using Fraud Diamond (A Study on Banking Companies Listed on The Indonesia Stock Exchange Period 2012-2016). *Asia Pacific Fraud Journal*, 4(2), 183-190. Retrieved from https://scholar.google.com/scholar?hl=id&as_sdt=0%2C5&q=Detecting+Financial+Statement+Fraud+Using+Fraud+Diamond+%28A+Study+on+Banking+Companies+Listed+on+The+Indonesia+Stock+Exchange+Period+2012-2016%29.+&btnG=
- Tarighi, H., Hosseiny, ZN, Abbaszadeh, MR, Zimon, G. & Haghighat, D. (2022), How Do Financial Distress Risk and Related Party Transactions Affect Financial Reporting Quality? Empirical Evidence from Iran. *Risks*, 10(3), 46. Retrieved from <https://www.mdpi.com/2227-9091/10/3/46>
- Toit, Elda Du. (2024). The Red Flad of Financial Statement Fraud: A Case Study. *Journal of Financial Crime*, 31(2), 311-321. Retrieved from <https://www.emerald.com/insight/content/doi/10.1108/jfc-02-2023-0028/full/html>
- Umar, H., Partahi, D. & Purba, R. (2020). Fraud Diamond Analysis in Detecting Fraudulent Financial Reports. *International Journal of Scientific & Technological Research*, 9(3), 6638-6646.
- Utami, ER & Pusparani, NO (2019). The Analysis of Fraud Pentagon Theory and Financial Distress for Detecting Fraudulent Financial Reporting in Banking Sector in Indonesia (Empirical Study of Listed Banking Companies on Indonesia Stock Exchange in 2012-2017). *Advances in Economics, Business and Management Research*, 102, 60-65. Retrieved from <https://www.atlantis-press.com/proceedings/icaf-19/125922011>
- Law no. 8 of 1995 concerning Capital Markets.
- Wajdi, Farid, et al. (2024). *Quantitative Research Methods*. First printing. Publisher: Widina Media Utama.
- Windharma, Fandry & Susilowati, Endah. (2020). Auditor Switching, Financial Distress and Financial Statement Fraud Practices with Audit Report Lag as Intervening Variable. *Journal of Accounting and Strategic Finance*, 3(2), 243-257. Retrieved from <https://jasf.upnjatim.ac.id/index.php/jasf/article/view/362>
- WR, D V. R, & Suryani, E. (2019). The Influence of Fraud Triangle Factors on Financial Statement Fraud. *Journal of Assets (Accounting Research)*, 11(2), 301-314.
- Yanara, Chanida. (2023). Factors Influencing Financial Statement Fraud: An Analysis of The Fraud Diamond Theory from Evidence of Thai Listed Companies. *WSEAS Transactions on Business and Economics*, 20, 1659-1672. Retrieved from https://scholar.google.com/scholar?hl=id&as_sdt=0%2C5&q=Factor+Influencing+Financial+Statement+Fraud%3A+An+Analysis+of+The+Fraud+Diamond+Theory+from+Evidence+of+Thai+Listed+Companies&btnG=

ANALYSIS OF FRAUD TRIANGLE FACTORS AND FINANCIAL DISTRESS THAT INFLUENCE FINANCIAL STATEMENT FRAUD IN REAL ESTATE COMPANIES LISTED ON THE IDX

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Zhou, Leiruo, Duan, Yunlong & Wei, Wei. (2023). Research on the Financial Data Fraud Detection of Chinese Listed Enterprises by Integrating Audit Opinions. *KSII Transactions on Internet and Information Systems*, 17(12), 3218-3241. Retrieved from

https://scholar.google.com/scholar?hl=id&as_sdt=0%2C5&q=Research+on+the+Financial+Data+Fraud+Detection+of+Chinese+Listed+Enterprises+by+Integrating+Audit+Opinions&btnG=