

Factors Affecting Fraud in Financial Reports with the Fraud Triangle Perspective in SOE Companies on the Indonesia Stock Exchange

Nabila Tijani Tharifah¹, Idhar Yahya², Isfenti Sadalia³, Darwin Darwin⁴

^{1,2,3}Department of Accounting, Faculty of Economics and Business Universitas Sumatera Utara, Indonesia

⁴Department of Education Management, Universitas Negeri Medan, Indonesia

Corresponding Author: Nabila Tijani Tharifah

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ABSTRACT

This study aims to analyze the factors that can trigger fraudulent financial reporting from the Fraud Triangle Theory perspective. The Fraud Triangle Theory explains that 3 factors can trigger fraud: pressure, opportunity, and rationalization. The variables of financial stability, external pressure, managerial ownership, financial targets, nature of the industry, ineffective monitoring, organizational structure, and rationalization explain these factors. This research was conducted at BUMN companies listed on the Indonesia Stock Exchange in 2017-2021, consisting of 21 companies. The sampling method is saturated sampling, so all populations are used in this study. The data type used is secondary data, with the data analysis technique of multiple linear regression tests using the EViews software tool. The results of this study indicate that Financial Stability has a positive and significant effect on Fraud Financial Reporting, Financial Targets, and the Nature of Industry have a negative and significant effect on Fraud Financial Reporting. At the same time, Managerial Ownership, Ineffective Monitoring, Structure Organization, and Rationalization do not affect financial statement fraud.

Keywords: *Fraud Financial Reporting, Fraud Triangle*

INTRODUCTION

Fraud is a deliberate attempt by managers to outsmart and confuse stakeholders and explain & manipulate values in financial

reports so that industrial shares are always in demand by company shares and remain in demand by investors (Sihombing & et al., 2014). Fraud is a form of planned misstatement or omission of amounts or exposures in financial statements to deceive users of financial statements (SPAP No.70 (SA Section 316: 4).

However, fraud is called fraud when someone uses their intelligence to manipulate financial reports to get potential investors to invest in their entity. Fraud financial reporting is intentional or negligent in presenting financial reports not in line with the provisions of accounting standards (Faradiza, 2019).

The largest anti-fraud organization in the world, the Association of Certified Fraud Examiners (2018) conducts various research and training on fraud, which regularly examines cases of fraud that occur in small-scale companies to multinational companies from 125 countries in the world, stating that losses due to fraud of 5% of annual revenue, if this estimate is applied to the Gross World Product in 2017 which amounted to USD 79.6 trillion, then the estimated loss due to fraud is almost USD 4 trillion.

The Association of Certified Fraud Examiners stated that there were 3 fraud categories: corruption, asset misappropriations, and fraudulent financial reporting. Research conducted by the Association of Certified Fraud Examiners

found that of the three categories, misuse of assets was the most common case of fraud, namely 89% with an average loss of USD 114,000, followed by corruption cases of 38% with an average loss of USD 250,000 and 10% of fraudulent financial reporting cases with the largest loss of USD 800,000. However, the percentage of fraudulent financial reporting cases discovered was the least. The resulting losses were quite significant. Even the number of losses due to fraudulent financial reporting was the largest among the fraud categories. Figure 1 illustrates the results of research conducted by ACFE regarding the categories of fraud cases that occurred and the losses suffered as a result of the fraud.

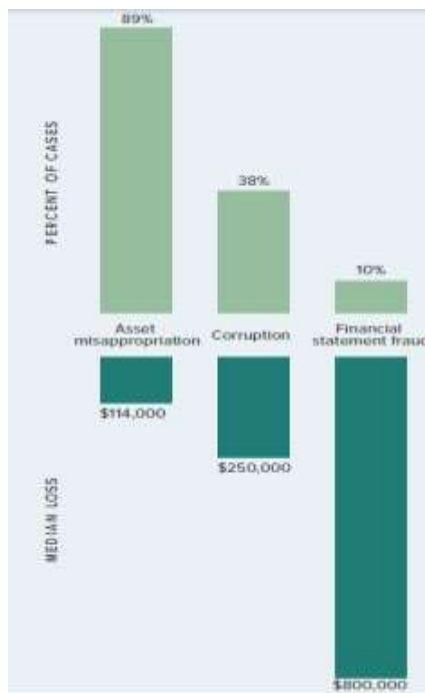


Figure 1. Fraudulent Act Category

Source: Association of Certified Fraud Examiners (ACFE, 2018).

Fraud financial reporting has been found a lot, including in Indonesia. Fraud financial reporting can occur in various industrial sectors, both large- and small-scale companies, private companies, and state-owned companies. Based on research by the Association of Certified Fraud Examiners, it was revealed that state-owned companies are the second largest sector in which fraud cases are encountered. The findings of the

2019 Indonesian Fraud Survey stated that 48.5% of respondents stated that the institution that suffered the most from the effects of fraud was the government. The informant gave an assessment stating that the second most disadvantaged institution by fraud was state companies (BUMN) at 31.8%, private companies at 15.1%, non-profit organizations at 2.9%, and others at 1.7% (ACFE, 2019).

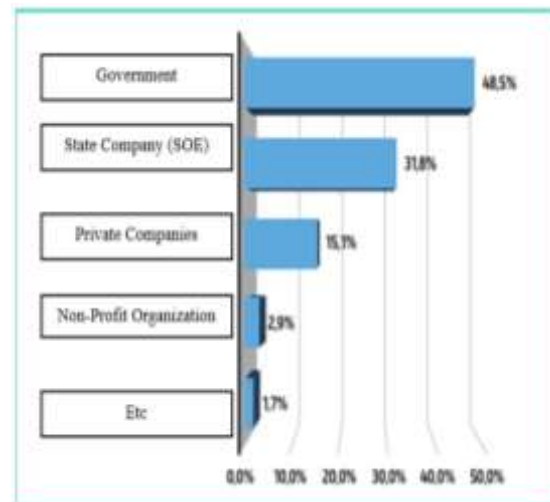


Figure 2. Categories of Types of Organizations/Institutions that are the Most Aggrieved Due to Fraud

Source: Association of Certified Fraud Examiners (ACFE, 2019)

PT Industri Kaca (Iglas) officially disbanded in Indonesia on March 10, 2022. The bankruptcy of PT Industri Kaca was due to the main director of Iglas committing fraud, namely corruption in the amount of Rp. 13 billion that lasted this long. Then, the company's operations continued based on the BUMN financial reports to the central government for the period ending in December 2018, and the company's financial performance was recorded. Until the end of 2018, Iglas posted revenue of IDR 690 million, and the company also received another income of IDR 2.84 billion. However, unfortunately, the company's operating expenses are higher than this income, which reached IDR 6.56 billion. Apart from that, there were also other expenses of IDR 57.13 billion, and interest expenses were also high, reaching IDR 48.42 billion. This severe financial

condition made the company bankrupt. (www.bpkp.go.id)

The case of PT Waskita Karya was related to excess recording in the 2004-2008 financial statements. In that case, the directors carried out financial engineering from the 2004 to 2008 financial year by including multi-year projections in the future as certain income. PT. Waskita Karya made an excess of recording a net profit of IDR 500 billion, discovered during a thorough audit of financial statements following the change of directors in 2008. Based on this, the Ministry of State-Owned Enterprises deactivated 3 directors of PT. Waskita Karya from his work (Putri & Fadhli, 2017).

In addition, there is also fraud in the annual financial performance report issued by PT. Garuda Indonesia TBK (GIAA) in 2018. At that time, the company reported a profit of US\$ 5 million or the equivalent of Rp. 70.02 billion. In fact, after recording adjustments, this airline lost US\$ 175 million, or the equivalent of Rp 2.45 trillion (exchange rate of Rp. 14,004/US\$). As a result, the total fines that the management of PT Garuda Indonesia Tbk (GIAA) had to be received at that time reached IDR 1.25 billion. Garuda Indonesia received these fines as a corporate entity and the company's management, directors, and commissioners (CNBC Indonesia, 2020).

In addition to management's mistakes in not making proper disclosures in the financial statements, the auditor also plays an essential role in errors in giving opinions on these financial statements so that they mislead other interested parties. Such a phenomenon related to the change of auditors that occurred at PT. Garuda Indonesia Tbk (GIAA) in 2019. There was an exchange of auditors to audit the financial statements of PT Garuda Indonesia Tbk, which in 2016 & 2017 were audited by KAP Deloitte. However, in 2018 PT Garuda Indonesia Tbk used KAP Tanubrata Susanto Fahmi Bambang & Rekan audit services. The Ministry of Finance has investigated KAP Tanubrata Sutanto Fahmi Bambang &

Partners (Member of BDO International) who is a Garuda auditor, in 2018 because, based on the results of the meeting with the KAP, it was concluded that there was speculation that the audit did not comply with accounting standards, then imposed sanctions in the form of freezing permits for 12 months (www.cnnindonesia.com:2019).

This phenomenon is consistent with the results of previous research showing that cases of financial reporting fraud are affected by changes in auditors (Ozcelik et al., 2020), (Mintara et al., 2021), (Wahyuni & Budiwitjaksono, 2017).

The following summarizes the fraud that has occurred in state-owned companies in Table 1.

Table 1. List of State-Owned Enterprises Committing Fraud

No	Company Name	Fraudulent Acts
1.	PT. Kimia Farma Tbk. (2001)	Double logging
2.	PT. Indofarma Tbk. (2001)	Financial report manipulation
3.	PT Telkom (2002)	No transparency
4.	PT Kereta Api Indonesia (2005)	Financial report manipulation
5.	PT. Perusahaan Gas Negara Tbk. (2007)	Insider trading
6.	PT Waskita Karya (2008)	Financial report manipulation
7.	PT Timah (2015)	Financial report manipulation
8.	PT Garuda Indonesia (2018)	Financial report manipulation
9.	PT Jwari (2006-2019)	Window dressing

Source: www.kompas.com

Based on BPK's findings, it stated that there were still frequent fraud cases in the scope of BUMN companies. The table above shows that there are still many cases of fraud related to financial statements that occur in state-owned companies. The subjects of this research are BUMN entities listed on the IDX. Because seeing the number of fraud cases that occur, of course, an effort or prevention of fraudulent financial reporting is needed. Prevention is carried out as an effort to reduce acts of fraud so that the State does not experience significant losses due to fraud that occurs.

In the background, it is explained that financial reporting fraud can be prevented or detected by analyzing the aspects that cause fraud using the theory of fraud. One theory that can be used is the fraud triangle theory expressed by Cressey (1953) called the fraud triangle. The fraud triangle describes 3 aspects that are always present in any fraud

condition: pressure, opportunity, and rationalization.

Based on SAS No. 99 (AICPA, 2002), 4 types of pressure can cause fraud: financial stability, external pressure, managerial ownership, and financial targets. At the same time, opportunity consists of 3 (three) condition categories: nature of the industry, ineffective monitoring, and organizational structure. The last aspect that causes fraud incidents is rationalization. Rationalization makes perpetrators who commit fraud look for ways to justify themselves for their actions. The factors in the fraud triangle theory can be used to detect fraudulent financial reporting, so that fraud in financial reports can be detected as early as possible. Based on the phenomenon and the inconsistency of research results, the authors would like to examine further "Factors Influencing Fraud Financial Reporting with the Fraud Triangle Perspective in BUMN Companies on the IDX."

LITERATURE REVIEW

1. Fraud

According to Albrecht et al. (2014), Fraud is a common subject. It includes all procedures that can be used with specific expertise in which an individual chooses to generate profits from other parties by making false representations.

Fraud in financial statements is intentional or careless reporting of financial transactions so that financial statements are reported as not following standard accounting provisions. This negligence or misappropriation is material and impacts the decisions of interested parties (Faradiza, 2019).

2. Fraud Tree

Systematically, ACFE illustrates occupational fraud in the form of a fraud tree. The tree describes fraud in employment relations in the form of branches. In the book *Forensic Accounting and Investigative Auditing* (2007), Theodorus states that there are 3 main branches according to ACFE,

namely:

a. Asset Misappropriation

Misappropriation of assets includes embezzlement and misappropriation of company or other party assets or assets. This example of fraud is not difficult to detect because it is a tangible or quantifiable asset. The cases that are usually carried out are inventory embezzlement & salary fraud.

b. Fraudulent Statements

Fraudulent Statements include actions carried out by directors of entities or government agencies to make efforts to hide the actual financial condition by falsifying the entity's financial statements. A typical example is overstating revenue and understating costs or liabilities.

c. Corruption

Corruption is included in the deception carried out by an entity or individual in business negotiations to take benefits for themselves even though it is not in line with their duties and responsibilities. Cases that often occur are accepting bribes & involvement in conflicts of interest.

3. Fraud Triangle

The fraud triangle theory is an idea that observes the things that cause fraud to occur. The fraud triangle theory was first introduced by Cressey (1953). The fraud triangle theory consists of three elements of fraud: pressure, opportunity, and rationalization (Fajri, 2018).

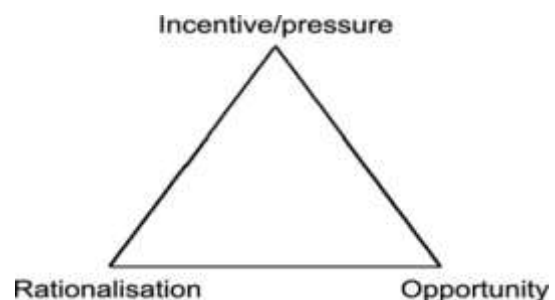


Figure 3. Fraud Triangle Classification

A. Pressure

Fraud can be caused by various pressures, such as financial stability, external pressures, personal financial needs, and financial targets (Fajri, 2018). Pressure can also be associated with financial difficulties or the powerlessness of an entity (Supriyanto & Hendri 2021). Financial difficulties will create pressure that causes management or other employees to disobey laws and regulations (Kagias et al., 2021; Putri & Irwandi, 2016) and commit fraud (Rostami & Rezaei, 2022). This is supported by previous researchers Utama et al. (2018) and Fitri et al. (2019), who reported that financial stability, external pressure, and managerial ownership significantly affect fraud financial reporting. Fitri et al. (2019) noted that companies that face higher pressure from financial stability, leverage, and financial targets have a greater possibility of fraud. According to SAS No.99, 4 common conditions cause pressure that can result in fraud, namely financial stability, external pressure, managerial ownership, and financial targets (Ozcelik, 2020), (Ratmono et al., 2020), and (Nakashima, 2017).

1) Financial Stability

Based on SAS No. 99, Financial Stability means managers are pressured to commit fraud on financial statements when financial stability/profitability is threatened by the economic conjuncture, sector, or operating conditions (Ozcelik, 2020). Assets can be used to show the state of financial stability of an entity because assets describe the wealth owned by the entity. An unstable company situation arises from the inability of management to control its assets, resulting in changes that are either too high or too low over some time. Stable financial conditions can minimize the risk of fraud.

Skousen et al. (2009) showed that the higher the ratio of change in total assets

of a company, the greater the possibility of fraudulent financial reporting in a company. Research conducted by Iqbal & Murtanto (2016) shows that ACHANGE positively affects financial statement fraud. This research aligns with Siddiq et al. (2017) and Bawekes et al. (2018), which show that financial stability proxied by ACHANGE has proven to affect financial statement fraud.

2) External Pressure

External pressure is the pressure exerted by a third party to meet the expectations and requirements of a third party. (Rahman et al. 2021). When pressure from outside parties occurs, the risk of fraud in financial reporting will increase. The leverage ratio measures external pressure. When a company has a high leverage ratio, it means that the company is considered to have high debt and high credit risk. The higher the credit risk, the more worried creditors are about giving loans to an entity (Rusmana & Tanjung, 2019). Therefore, this is a matter of concern to the company and can be one of the things that cause fraud in financial reporting. This is in line with research conducted by Tiffani & Marfuah (2015), Susmita & Nanik (2015), Ozcelik (2020), Khan & Hapiz (2022), Ratmono et al. (2022), which states that external pressure has a positive effect on fraudulent financial reporting.

3) Managerial Ownership

Managerial Ownership is defined as a share of shares indicating ownership by management of the total company shares (Siregar & Rahayu, 2018). The existence of share ownership owned by people in the company can affect the company's financial condition because the person concerned feels that he has the right to claim the company's income and assets (Yesiariani & Rahayu, 2016). Managers who have company share ownership not only act as company managers but also act as supervisors of company operations.

This condition can cause pressure on the personal interests of managers, which can trigger acts of fraud (Purnama & Astika, 2021).

Kayoi et al. (2019) and Purnama et al. (2021),) show that OSHIP has a positive effect on financial statement fraud.

4) Financial Targets

Financial targets are the achievement of targets that the board of directors has decided regarding financial performance achievements that must be exceeded, for example, targets set by the directors regarding financial performance that the company must achieve, for example, profits (Agusputri & Sofie, 2019).

Financial targets are usually seen from the profit the company earns. One way to measure financial or financial targets is to use ROA (Return on Assets). ROA measures a company's ability to generate profits. The higher the company's ability to generate profits, the better the performance. The company will get better. However, in certain circumstances, the company may fail to achieve financial targets, which can cause pressure in achieving financial targets, and the existence of the company is doubtful, so it can encourage companies to commit fraud in financial reporting (Tessa & Harto, 2016). A decrease in ROA will cause a tendency for high levels of fraud to occur in the future (Aprilia & Furqani, 2021).

B. Opportunity

Opportunity is another element that has a strong relationship with fraud (Demetriades & Owusu-Agyei, 2022). Opportunity refers to situations or conditions that allow people to commit fraud (Ghafoor et al., 2019). According to SAS No. 99, fraudulent financial reporting can occur in three categories of opportunities: the nature of the industry, ineffective monitoring, and organizational structure (Kayoi et al., 2019).

5) Nature of Industry

The nature of Industry is the ideal position of an entity in an industry (Yesiariani & Rahayu, 2017). The financial statement has several accounts whose balances are based on estimated estimates, namely bad debts & obsolete inventory (Septriani & Handayani, 2018). Richardson et al. (2004) describe accounts receivable as having a low level of reliability. Receivables also involve subjective estimation of uncollectible accounts.

According to research by Pradana & Purwanti (2019), this account can allow management to manipulate the entity's financial statements. A low change in the receivable's ratio indicates that the income received is also low and the cash to be received is also small. This is what can trigger the risk of fraud in financial reporting.

Kusumaningrum (2016) and Kayoi et al. (2019) found that the nature of the industry has a negative effect on fraud financial reporting by proxy with RECEIVABLE.

6) Ineffective Monitoring

Ineffective monitoring is a condition that indicates that the company's internal control system is not running effectively (Septriani & Handayani, 2018). An independent board of commissioners is believed to be able to increase the effectiveness of an entity's supervision, therefore, a company with a small number of commissioners will indicate higher fraud (Damayani et al., 2017). Independent oversight is usually done by appointing several independent commissioners within the company. Independent commissioners come from outside the entity or are not affiliated with the company's shareholders. The more commissioners in a company, the more effective the supervision will be (Aprilia, 2017).

Tiffani & Marfuah (2015), Kayoi et al. (2019), Aripin et al. (2022), and

Nakashima (2017) state that ineffective monitoring proxied by BDOOUT has a negative effect on fraudulent financial reporting.

7) Structure Organization

Organizational structure is a formal system of rules and duties as well as authority relations that oversees how members of the organization work together and use resources to achieve organizational goals (Muningsih & Muliati, 2020). Companies with good performance generally have a clear organizational structure and tend to experience less frequent changes of directors. Based on SAS No. 99, one proof that the structure of an organization is complex or unstable is that there has been a change in senior management and the appointment of directors and counselors.

Wolfe & Hermanson (2004) in their journal concluded that changes in directors indicate fraud. Changes in directors can be a company effort to improve the performance of the previous directors by changing the composition of the directors or by recruiting new directors who are considered more competent. In addition, replacing directors may aim to eliminate directors who are considered to have known that fraud exists in a company. Research that examines the effect of changing directors on fraud financial reporting was conducted by Sihombing et al. (2014), Restiani & Murtanto (2015), and Kusumaningrum & Murtanto (2016). The results of the three studies prove that the change of directors has a positive effect on the occurrence of fraudulent financial reporting.

C. Rationalization

Fajri (2018) states that rationalization is closely related to a person's personality and character, an essential element of fraud, where fraudsters usually seek justification for their actions. It is an attitude that allows individuals to justify or understand their illegal actions (Putri & Irwandi, 2016).

Rationalization described in the Standard

Auditor Statement (PSA) No. 70 shows tension in the relationship between management and the current/previous auditor as an indication of fraudulent financial reporting. (Wahyuni, et al. 2017). Companies that commit fraud more often change auditors because company management tends to try to reduce the possibility of detection by the old auditor regarding fraudulent financial reporting. The company uses the change in auditor to eliminate fraud trials found by previous auditors. This tendency encourages companies to change their independent auditors to cover up fraud in the company (Tessa & Harto, 2016).

The company's change in auditors can be considered as a form of eliminating traces of fraud found by previous auditors. With a change in auditors, the possibility of fraud will increase (Yesiariani & Rahayu, 2016). This is in line with Ozcelik's research (2020), Kayoi et al. (2019), and Mintara & Hapsari (2021), that the rationalization proxied by AUDCHANGE has a positive effect on financial statement fraud.

Framework

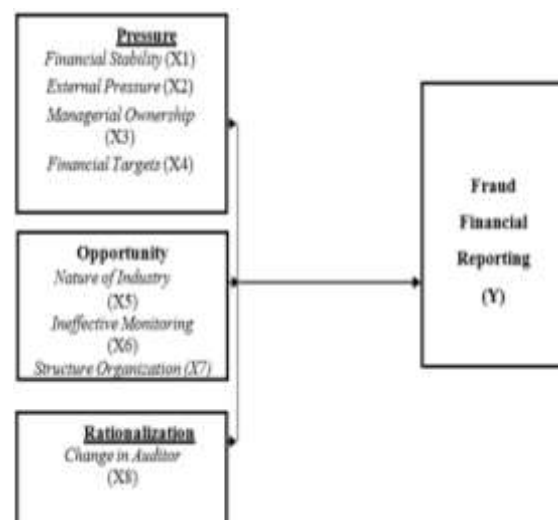


Figure 4. Framework

H1: Financial Stability Has a positive effect on Fraud Financial Reporting

H2: External pressure has a positive effect on Fraud Financial Reporting.

H3: Management Ownership has a positive effect on Fraud Financial Reporting.

H4: Financial targets have a negative effect on Fraud Financial Reporting.

H5: Nature of Industry Has a negative effect on Fraud Financial Reporting

H6: Ineffective monitoring has a negative effect on Fraud Financial Reporting

H7: Structure Organization has a positive effect on detecting Fraud Financial Reporting

H8: Change in Auditor Has a positive effect on Fraud Financial Reporting

MATERIALS & METHODS

The causal effect is used in this research, which means that it examines the relationship between 2 variables and so on. This type of research aims to analyze the relationship between one variable and another variable. This research analyzes the aspects that trigger fraudulent financial reporting from the perspective of the fraud triangle.

The population is an area consisting of objects/subjects, which are the quantity & specific characteristics that the researcher determines to be studied (Erlina, 2011). The population in this research is all state-owned companies listed on the Indonesia Stock Exchange (IDX) for the 2017-2021 period.

The sample is a part of the population used to estimate population characteristics (Erlina, 2011). The sampling method used in this research is the saturated sampling method. Another term for a saturated sample is a census. Saturated sampling is a sampling technique when the entire population is used as a sample (Sugiyono, 2013). This study uses saturated sampling because the population is relatively small. So the sample in this study was 21 companies x 5 years = 105. The data in this study was sourced from the official IDX website via www.idx.co.id, which was processed using the Eviews application.

RESULT

A. Analysis With Panel Data

Gujarati (2003) found that estimating the type of panel data using the Ordinary Least Square (OLS) method is inconsistent and efficient (inefficiency), so the use of the Generalized Least Square (GLS) method is recommended. Effendi & Setiawan (2013) state that the Generalized Least Square (GLS) method in the panel data model is divided into FEM & REM. By using the eviews tool, we can find out the results of the fixed effect model and the random effect model, which are shown in the following table:

Table 2. Fixed Effect Model Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.016343	0.273035	0.059658	0.9524
Financial Stability (X1)	0.521992	0.256935	2.035681	0.0453
External Pressure (X2)	-0.313327	0.415707	-0.753720	0.4533
Managerial Ownership (X3)	115.7275	73.38184	1.577059	0.1189
Financial Target (X4)	0.533197	0.927780	0.574783	0.5672
Nature Of Industry (X5)	-0.608489	0.096615	-6.280311	0.0000
Ineffective Monitoring (X6)	0.108555	0.074304	1.460963	0.1481
Structur Organization (X7)	0.109183	0.074300	1.346987	0.1829
Rationalization (X8)	-0.001855	0.058347	-0.031856	0.9747

Effects Specification			
Cross-section fixed (dummy variables)			
Root MSE	0.213715	R-squared	0.736351
Mean dependent var	-0.029296	Adjusted R-squared	0.641954
S.D. dependent var	0.413618	S.E. of regression	0.251282
Akaike info criterion	0.304832	Sum squared resid	4.795771
Schwarz criterion	1.037831	Log likelihood	13.03831
Hannan-Quinn criter	0.601058	F-statistic	7.659472
Durbin-Watson stat	2.548809	Prob(F-statistic)	0.000000

Source: Processed with EViews-12 (2023)

The table above is the first model in this research, namely the fixed effect model. While the second model is the random effect model, as stated as follows:

Table 3. Random Effect Model Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.436228	0.137982	3.161473	0.0021
Financial Stability (X1)	0.490329	0.238820	2.051133	0.0428
External Pressure (X2)	-0.890384	0.211612	-4.203643	0.0001
Managerial Ownership (X3)	44.64772	67.24694	0.663937	0.5083
Financial Target (X4)	0.596338	0.668631	0.757270	0.4507
Nature Of Industry (X5)	-0.845442	0.087323	-7.391494	0.0000
Ineffective Monitoring (X6)	0.062940	0.059529	1.050581	0.2961
Structur Organization (X7)	0.128151	0.088253	1.904088	0.0599
Rationalization (X8)	0.007672	0.054836	0.139912	0.8890

Effects Specification			
Cross-section random			
Idiosyncratic random			
		S.D.	Rho
		0.091954	0.1227
		0.251202	0.8773

Weighted Statistics			
Root MSE	0.245261	R-squared	0.666279
Mean dependent var	-0.022473	Adjusted R-squared	0.530136
S.D. dependent var	0.374188	S.E. of regression	0.250500
Sum squared resid	6.316966	F-statistic	15.66755
Durbin-Watson stat	1.857803	Prob(F-statistic)	0.000000

Unweighted Statistics			
R-squared	0.606897	Mean dependent var	-0.029296
Sum squared resid	7.205193	Durbin-Watson stat	1.628549

Source: Processed with EViews-12 (2023)

The table above displays the model of the random effect. These two models in Tables 2 and 3 need to be tested to determine which model is suitable for this research so it can use the Hausman test.

Hausman Test

The Hausman test is carried out to make judgments between the Fixed Effect Model and the Random Effect Model to be useful in order to determine which model should be used. This test was carried out using the EViews program. Some provisions must be made for the Hausman test as follows:

- 1) If the probability value of the random cross-section is > 0.05 , then H_0 is accepted by the selected regression model, which is the Random Effect Model (REM).
- 2) If the probability value of the random cross-section is < 0.05 , then H_0 is rejected. The regression model chosen is the Fixed Effect Model (FEM).

Table 4. Hausman Test Results

Constated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	12.002566	8	0.1471

Source: Processed with EViews-12 (2023)

Based on the table above, it is known that the random cross-section probability value is $0.1471 > 0.05$. It means the REM model is better when compared to the FEM model. So, the Random Effects model was used in this study.

B. Classic Assumption Test

1) Normality test

In this study, the Jarque-Bera test is used to test normality. If the probability value of Jarque-Bera is greater than 0.05, then the assumption of normality is fulfilled; otherwise, if the probability value of Jarque-Bera is less than 0.05, then the assumption of normality is not fulfilled, or the data is not normally distributed. The results of the

normality test using the Jarque-Bera test in Figure 5 follow.

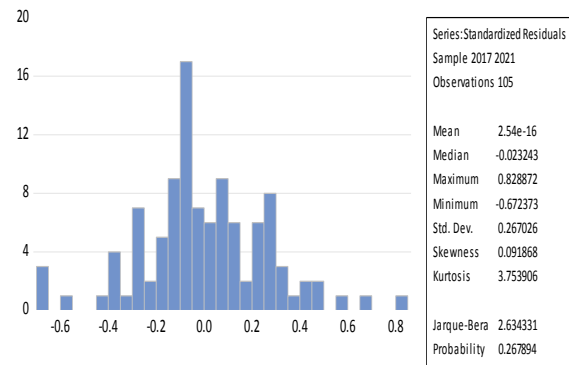


Figure 5. Normality Test with the Jarque-Bera Test
Source: Processed with EViews-12 (2023)

The picture above shows that the origin of the Jarque-Bera statistical prob value is 0.267894. Because the probability value of this study is $0.267894 > 0.05$ from the significance level, the assumption of normality is met.

2) Multicollinearity Test

If there is an indication of multicollinearity, it can be seen from the VIF value. If the VIF value > 10 , multicollinearity is indicated (Ghozali, 2013). Therefore, the results of the multicollinearity test are presented in Table 5.

Table 5. Multicollinearity Test Result

Variable	Coefficient Variance	Uncentared VIF	Centered VIF
C	0.015734	22.10588	NA
Financial Stability (X1)	0.063283	2.078741	1.419194
External Pressure (X2)	0.038227	24.48005	1.939335
Managerial Ownership (X3)	4878.621	1.273620	1.148141
Financial Target (X4)	0.403096	2.331310	1.780219
Nature Of Industry (X5)	0.008179	1.280394	1.240288
Ineffective Monitoring (X6)	0.003400	4.943683	1.323151
Structur Organization (X7)	0.004621	1.422049	1.110553
Rationalization (X8)	0.003334	2.007230	1.146988

Source: Processed with EViews-12 (2023)

Based on Table 5 above, we can see that the results of the multicollinearity test show no symptoms of multicollinearity between the independent variables. This is caused by the VIF value < 10 (Ghozali, 2013).

3) Heteroscedasticity Test

To test the possibility of heteroscedasticity/cannot be used Breusch-Pagan test. Table 6 presents the results of the heteroscedasticity test using the Breusch-Pagan test.

Table 6. Heteroscedasticity Test Result

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	241.4609	210	0.0672
Pesaran scaled LM	1.535134		0.1248
Pesaran CD	3.518489		0.0004

Source: Processed with EViews-12 (2023)

Based on the results of the Breusch-Pagan test in Table 6 above, it is known that the Prob value is $0.0672 > 0.05$, which means that heteroscedasticity does not occur, so the assumption of heteroscedasticity is met.

4) Autocorrelation Test

The assumption of the independence of the residuals (non-autocorrelation) can be tested using the Durbin-Watson test with the test range between 0 and 4. Statistical values of the Durbin-Watson test that are less than 1 or greater than 3 indicate autocorrelation. In Table 7 it can be seen the results of the autocorrelation test:

Table 7. Autocorrelation Test Result

Weighted Statistics			
Root MSE	0.245261	R-squared	0.566279
Mean dependent var	-0.022473	Adjusted R-squared	0.530136
S.D. dependent var	0.374198	S.E. of regression	0.256500
Sum squared resid	6.318066	F-statistic	15.66755
Durbin-Watson stat	1.857803	Prob(F-statistic)	0.000000

Source: Processed with EViews-12 (2023)

Based on Table 7 above, the value of the Durbin-Watson statistic is 1.857803. The Durbin-Watson statistical value lies between 1 and 3, $1 < 1.857803 < 3$. So, the non-autocorrelation assumption is fulfilled. In other words, there are no high autocorrelation symptoms in the residuals.

A. Hypothesis Test

1) Panel Data Regression Analysis

The data analysis method used in this research is multiple linear regression analysis on panel data so that illustrations of the effects of financial stability, external pressure, managerial ownership, financial targets, nature of the industry, ineffective monitoring, organizational structure, and rationalization on fraudulent financial reporting can be obtained. Based on the results of the Hausman test, it was found that the suitable model in this research was the Random Effect Model. Following are the results of multiple linear regression analysis of panel data using the Random Effect Model presented in Table 3 follows:

$$Y = 0.43 + 0.49X1 - 0.89X2 + 44.64X3 + 0.51X4 - 0.65 X5 + 0.06X6 + 0.13X7 + 0.008X8 + e$$

Based on the regression equation, it can be explained that:

- 1) The constant (a) = 0.43 shows that the value is constant. Therefore, it can be interpreted that if the values of all independent variables are equal to zero, then the fraud financial reporting variable (Y) is equal to 0.43.
- 2) The financial stability coefficient (X1) = 0.49, which means that according to this research, if the other variables have a stable value and financial stability increases by 1%, fraud financial reporting (Y) will also increase by (0.49%).
- 3) The coefficient of external pressure (X2) = -0.89, which means that based on this research, if the other variables have a stable value and external pressure increases by 1%, fraud financial reporting (Y) will decrease by (0.89%).
- 4) Managerial ownership coefficient (X3) = 44.64, it can be interpreted that based on this research, if other variables have stable values and managerial ownership increases by 1%, then financial fraud reporting (Y) will also increase by (44.64%).

- 5) The financial target coefficient (X4) = 0.51, which means that based on this research, if the other variables have a stable value and the financial target increases by 1%, fraud reporting financial (Y) will increase by (0.51%).
- 6) The nature of industry coefficient (X5) = -0.65, which means that based on this research, if other variables have a stable value and the nature of industry increases by 1%, fraud financial reporting (Y) will also decrease by (0.65%).
- 7) The coefficient of ineffective monitoring (X6) = 0.06. It can be interpreted that based on this research, if other variables have stable values and ineffective monitoring increases by 1%, then fraud financial reporting (Y) will also increase by (0.06%).
- 8) Organizational structure coefficient (X7) = 0.13, it can be interpreted that based on this research, if other variables have stable values and organizational structure increases by 1%, fraud reporting financial (Y) will also increase by (0.13%).
- 9) The coefficient of change in auditor (X7) = 0.008, it can be interpreted that based on this research, if the other variables have a stable value and the change in auditor increases by 1%, fraud financial reporting (Y) will also increase by (0.008%).

2) Determination Coefficient Test

The coefficient of determination (R²) calculates the level of the model's ability to explain variations in the dependent variable. The range of values is 0 (zero) to 1 (one). If the value of R² is small, it indicates that the ability of the independent variables to explain the variation in the dependent variable is minimal. Conversely, if the R² value is large, it means the ability of the independent variables to explain the large variation in the dependent variable. Based on Table 3 above, it can be interpreted that financial stability, external pressure, managerial ownership, financial targets,

nature of the industry, ineffective monitoring, organizational structure, and rationalization simultaneously or jointly affect financial fraud reporting by 53.01%, the remaining 46.99% influenced by other factors.

3) Simultaneous Significance Test (F Test)

A simultaneous significance test was conducted to determine whether all the independent variables included in the model have a common effect on the dependent variable. Based on Table 3 above shows that the Prob. (F-statistics), namely 0.0000 < 0.05, it can be concluded that all independent variables, namely Financial Stability (X1), External Pressure (X2), Managerial Ownership (X3), Financial Target (X4), Nature of Industry (X5), Ineffective Monitoring (X6), Organizational Structure (X7), Change in Auditor (X8) simultaneously or together have a significant effect on the Fraud Financial Reporting variable (Y).

4) Partial Significance Test (T-Test)

This test was conducted to determine the effect of each independent variable partially on the dependent variable. Based on Table 3 above, it can be concluded that:

1. Financial Stability (X1) positively and significantly affects Fraud Financial Reporting (Y).
2. External Pressure (X2) negatively and significantly affects Fraud Financial Reporting (Y).
3. Managerial Ownership (X3) does not significantly affect Fraud Financial Reporting (Y).
4. Financial Target does not significantly affect Fraud Financial Reporting (Y).
5. Nature Of Industry (X5) negatively and significantly affects Fraud Financial Reporting (Y).
6. Ineffective Monitoring (X6) does not significantly affect Fraud Financial Reporting (Y).

7. Structure Organization (X7) does not significantly affect Fraud Financial Reporting (Y).
8. Rationalization (X8) does not significantly affect Fraud Financial Reporting (Y).

CONCLUSION

Based on the research results, it can be concluded that:

1. Financial Stability has a positive and significant effect on fraud financial reporting in state-owned companies listed on the Indonesia Stock Exchange for 2017-2021.
2. External Pressure negatively and significantly affects fraud financial reporting in BUMN Companies listed on the Indonesia Stock Exchange for 2017-2021.
3. Managerial Ownership does not affect fraud financial reporting in BUMN Companies listed on the Indonesia Stock Exchange for 2017-2021.
4. Financial Targets do not affect fraud financial reporting in BUMN Companies listed on the Indonesia Stock Exchange for 2017-2021.
5. The nature of the industry has a negative and significant effect on fraud financial reporting in state-owned companies listed on the Indonesia Stock Exchange for 2017-2021.
6. Ineffective Monitoring does not affect fraud financial reporting in BUMN Companies listed on the Indonesia Stock Exchange for 2017-2021.
7. Organizational Structure does not affect fraud financial reporting in BUMN Companies listed on the Indonesia Stock Exchange for 2017-2021.
8. Change in Auditor does not affect fraud financial reporting in state-owned companies listed on the Indonesia Stock Exchange for 2017-2021.
9. Based on the significant F test, the fraud triangle consists of pressure proxied by financial stability, external pressure, managerial ownership, and

financial targets—opportunity proxied by the nature of the industry, ineffective monitoring, and organizational structure. Furthermore, Rationalization, which is proxied by a change in auditor simultaneously, significantly affects fraud financial reporting in BUMN companies listed on the Indonesia Stock Exchange for 2017-2021.

RESEARCH LIMITATIONS

Several limitations are made to study material for further research in this research in order to produce even better research. The following are the limitations of this study:

1. The independent variables used in this study are still lacking in explaining the effect of the independent variables on the dependents. It can be seen from the R-square value of only 0.5301. It means that the variables Financial Stability (X1), External Pressure (X2), Managerial Ownership (X3), Financial Target (X4), Nature of Industry (X5), Ineffective Monitoring (X6), Structure Organization (X7), Rationalization (X8), only able to influence Fraud Financial Reporting by 53.01%, the remaining 46.99% influenced by other factors.
2. In this study, researchers used a sample of BUMN companies listed on the Indonesia Stock Exchange, as it is known that BUMN companies consist of various types of industrial sectors, such as the materials, banking, construction, and transportation infrastructure sectors. Of course, the characteristics of each sector are different, so if they are put together in one study, it will not be easy to generalize.

SUGGESTION

Because there are limitations in this research that have been described above, therefore there are several things that should be improved for subsequent

research, namely as follows:

1. The total sample that can be used for further research is recommended to use a larger or broader sample and focus more on industrial companies with the exact specifications. Examples are agriculture, mining, telecommunications, manufacturing, and so on.
2. For further research, it is recommended to add other proxies. In future research, you can use or add measurements of the fraud triangle theory to make the research results more diverse.
3. For investors and potential investors, in this research, various variables indicate that the independent variables affect fraudulent financial reporting. It can be used as material for assessment before investing in an entity.
4. Suggestions for companies to be more careful and thorough in presenting financial statements by following the rules set and increasing internal control within the company to prevent fraud incidents so that no party is harmed by decision-making.

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REFERENCES

1. Aprillia, R. (2017). Pengaruh Financial Stability, Personal Financial Need, Ineffective Monitoring, Change In Auditor, dan Change In Directors Terhadap Financial Statement Fraud Dalam Perspektif Fraud Diamond (Studi Empiris pada Perusahaan Manufaktur yang Terdaftar di BEI) . JOM Fekon, 1472-1486
2. Agusputri, H. dan Sofie. (2019). Faktor - faktor yang berpengaruh terhadap fraudulent financial reporting dengan menggunakan analisis fraud pentagon. Jurnal Informasi, Perpajakan, Akuntansi, Dan Keuangan Publik, 14(2), 105. <https://doi.org/10.25105/jipak.v14i2.5049>
3. Aripin, R. M., Mahmud, R., Sabli, N., & Tapsir, R. (2022). Fraudulent Financial Reporting In Malaysia: From Fraud Triangle Theory Perspective. Global Academy Excelent, 30-48.
4. Association Of Certified Fraud Examiners. 2018. Report To The Nation On Occupational Fraud And Abuse (2018 Global Fraud Study).
5. Bawekes, H. F., Simanjuntak, A. M. A., & Daat, S. C. (2018). Pengujian Teori Fraud Pentagon Terhadap Fraudulent Financial Reporting (Studi Empiris pada Perusahaan yang Terdaftar di Bursa Efek Indonesia Tahun 2011-2015). Jurnal Akuntansi & Keuangan Daerah, Vol. 13 (No. 1), Hal 114-134
6. Cressey, Donald R. 1953. Other People's Money: A Study in the Social Psychology of Embezzlement. New Jersey: Patterson Smith.
7. Damayani, F., Wahyudi, T., & Yurniatie, E. (2017). Pengaruh fraud pentagon terhadap kecurangan laporan keuangan pada perusahaan infrastruktur yang terdaftar di bursa efek indonesia tahun 2014-2016. Akuntabilitas: Jurnal Penelitian dan Pengembangan Akuntansi Vol.11, 151-170.
8. Erlina. (2011). Metodologi Penelitian. Medan: USU Press.
9. Faradiza, S. A. (2019). Fraud Pentagon dan Kecurangan Laporan Keuangan. Sekar Akrom Faradiza, 4988, 1-22
10. Ghafoor, A. et al. (2019). Factors Eliciting Corporate Fraud in Emerging Markets: Case of Firms Subject to Enforcement Actions in Malaysia. Journal of Business Ethics, 160(2), 587-608. <https://doi.org/10.1007/s10551-018-3877-3>
11. Ghozali, Imam. 2013. Aplikasi Analisis Multivariate dengan Program IBM SPSS 21 Update PLS Regresi. Semarang: Badan Penerbit Universitas Diponegoro.
12. Gujarati, D. N. 2013. Dasar-dasar Ekonometrika, Edisi Kelima. Mangunsong, R.
13. Kayoi, S. A., & Fuad. (2019). Faktor - Faktor yang Mempengaruhi Financial Statement Fraud Ditinjau Dari Fraud Triangel Pada Perusahaan Manufaktur Di

- BEI 2015-2017. *Diponegoro Journal Of Accounting*, 1-13.
14. Khan, N. I., & Hapiz, A. A. (2022). Financial Statement Fraud: Evidence from Malaysian Public Listed Companies. *Universiti Teknologi MARA*, 181-194.
 15. Kusumaningrum, A. W dan Murtanto. 2016. "Analisis Pengaruh Fraud Diamond dalam Mendeteksi Kecurangan Laporan Keuangan". Seminar Nasional dan Call Paper Fakultas Ekonomi UNIBA Surakarta.
 16. Mintara, M. B., & Hapsari, A. N. (2021). Pendeteksian Kecurangan Pelaporan Keuangan Melalui Fraud Pentagon Framework. *Center for Accounting Development and Research (CARD)*, 35-58.
 17. Muningsih, N. M., & Muliati, N. K. (2020). Pengaruh Kondisi Industri, Ketidakefektifan Pengawasan Dan Struktur Organisasi Terhadap Kecurangan Laporan Keuangan Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia Tahun 2016 – 2018. *Hita Akuntansi Dan Keuangan*, 1(2), 884– 913
 18. Nakashima, M. (2017). Can The Fraud Triangle Predict Accounting Fraud? : Evidence from Japan. *The Chiba University of Commerce*, 1-37.
 19. Ozelik, H. (2020). An Analysis Of Fraudulent Financial Reporting Using The Fraud Diamond Theory Perspective: An Empirical Study On The Manufacturing Sector Companies Listed On The Bursa Istanbul. *Emerald Publishing Limited*, 131-153
 20. Putri, N., & Fadhli, W. (2017). Pergantian CEO, Penghindaran Pajak, Kompensasi Eksekutif Dan Manajemen Laba Studi Kausalitas Pada Perusahaan. *Jurnal Ilmiah Mahasiswa Ekonomi Akuntansi (JIMEKA)*, 2(3).
 21. Putri, P.A.A dan Irwandi, S.A. 2016. The Determinants of Accounting fraud Tendency. *The Indonesian Accounting Review* Vol.6, N0. 1, January – Juli 2016, pages 99 – 108.
 22. Rahman, A., Deliana, D., & Gopas, D. (2021). Pendeteksian Kecurangan Laporan Keuangan Dengan Analisis Fraud Triangle Pada Perusahaan Perbankan Yang Terdaftar Di Bursa Efek Indonesia. *Kajian Akuntansi*, 9-19.
 23. Ratmono, D., Darsono, & Cahyonowati, N. (2020). Financial Statement Fraud Detection With Beneish M Score & Dechow F - Score Model: An Empirical Analysis Of Fraud Pentagon Theory In Indonesia. *International Journal of Financial Research Universitas Diponegoro*, 154-164.
 24. Richardson, Scott A., Sloan, R.G., Soliman, M.T., Tuna, I. 2004. Accrual Reliability, Earnings Persistence, and Stock Prices. *Journal of Accounting and Economics* 39: 437-485. <https://doi.org/10.1016/j.jacceco.2005.04.005>
 25. Rostami, V., & Rezaei, L. (2022). Corporate governance and fraudulent financial reporting. *Journal of Financial Crime*, 29(3), 1009–1026. <https://doi.org/10.1108/JFC-07-2021-0160>
 26. Rusmana, O dan H. Tanjung. 2019. "Identifikasi Kecurangan Laporan Keuangan Dengan Fraud Pentagon Studi Empiris BUMN yang Terdaftar di Bursa Efek Indonesia". *Jurnal Ekonomi, Bisnis dan Akuntansi (JEBA)*. Vol. 21. No 4
 27. Septriani, Y., & Handayani, D. (2018). Mendeteksi Kecurangan Laporan Keuangan dengan Analisis Fraud Pentagon. *Jurnal Akuntansi Keuangan Dan Bisnis*, 11(1), 11-23.
 28. Siddiq, F. R., Achyani, F., & Zulfikar, Z. (2017). Fraud Pentagon dalam Mendeteksi Financial Statement Fraud. Seminar Nasional Dan The 4th Call For Syariah Paper. <https://doi.org/10.21043/bisnis.v4i2.2692>
 29. Sihombing, Kennedy Samuel dan Rahardjo, S.N. 2014. Analisis Fraud Diamond Dalam Mendeteksi Financial Statement Fraud: Studi Empiris Pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia (BEI) Tahun 2010-2012. *Diponegoro Journal of Accounting*. Vol. 3 No.2: 1-12.
 30. 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. *Advances in Financial Economics*, 13(1), 53-81. [https://doi.org/10.1108/S1569-3732\(2009\)0000013005](https://doi.org/10.1108/S1569-3732(2009)0000013005)

31. Statement On Auditing Standart (SAS). No. 99. 2003. "Consideration Of Fraud In A Financial Statement Audit. Journal Of Accountancy. Vol. 1.
32. Supriyanto, & Hendri, J. (2021). Analisis Pengaruh Tata Kelola Perusahaan dan Struktur Modal Terhadap Kinerja Perseroan. *Jurnal Akademi Akuntansi*, 4(2), 246–269. <https://doi.org/10.22219/jaa.v4i2.18181>
33. Tessa, G. C., & Harto, P. (2016). Fraudulent Financial Reporting: Pengujian Teori Fraud Pentagon Pada Sektor Keuangan Dan Perbankan Di Indonesia (Doctoral dissertation, Fakultas Ekonomika dan Bisnis).
34. Tiffani, L., & Marfuah, M. (2015). Deteksi financial statement fraud dengan analisis fraud triangle pada perusahaan manufaktur yang terdaftar di bursa efek Indonesia. *Jurnal Akuntansi dan Auditing Indonesia*, 19(2), 112-125. <https://doi.org/10.20885/jaai.vol19.iss2.art3>
35. Wahyuni dan Budiwitjaksono, G. S. 2017. Fraud Triangle Sebagai Pendeteksian Kecurangan Laporan Keuangan. *Jurnal Akuntansi*. Vol; XXI, No. 01. Hal: 47-61.
36. Wolfe, D. T., & Hermanson, D. R. (2014). The Fraud Diamond: Considering The Four Elements Of Fraud. *The Cpa Journal*.
37. Yesiariani, Merissa dan Rahayu, Isti. 2017. Deteksi financial statement fraud: Pengujian dengan fraud diamond. *Jurnal Akuntansi & Auditing Indonesia*, Vol. 21 No. 1 Hal. 49-60.

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