

ANALYSIS OF FACTORS INFLUENCING FRAUDULENT FINANCIAL STATEMENTS IN BANKING-SECTOR COMPANIES LISTED ON THE INDONESIAN STOCK EXCHANGE (IDX) FROM 2019 TO 2023

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Abstract. This study examines and analyzes the factors influencing fraudulent financial statements at 34 Indonesian banking companies during the period from 2019 to 2023, using the Fraud Hexagon theory. The rise in the number of fraud cases has made fraudulent financial statements in the banking sector a serious concern due to the vital role banks play in the national economy. A quantitative approach using panel data regression analysis was employed. The results show that external pressure has a negative impact on fraudulent financial statements, while industry characteristics have a positive impact. External pressure acts as a deterrent, as high leverage encourages management to comply with regulations and standards in order to maintain reputation, preserve market confidence, and avoid sanctions. Conversely, industry characteristics act as a driving factor, as changes in accounts receivable—often based on estimates—are susceptible to manipulation. Other variables, such as personal financial needs, ineffective oversight, auditor opinions, total accruals, board turnover, CEO education level, CEO dual leadership, number of CEO photos, state-owned enterprises, and collaboration on government projects, had no significant impact. These findings contribute to the design of fraud prevention strategies by emphasizing the importance of stricter oversight in industries vulnerable to manipulation and leveraging external pressure to enhance transparency.

Keywords: Banking Sector Companies, Fraud Hexagon Theory, Fraudulent Financial Statements, Panel Data

I. INTRODUCTION

Financial statements are the primary source of information used by stakeholders to evaluate a company's performance and financial condition (Sari & Lestari, 2020). However, the accuracy and reliability of these statements can be compromised by fraud in financial reporting. This phenomenon is a serious concern in Indonesia's banking sector given the vital role banks play in the national economy (Rohman, 2023). Understanding the difference between errors and fraud is crucial when discussing financial reporting issues. According to Statement on Auditing Standards (SAS) No. 99 (2002), an error refers to an unintentional accounting error caused by inaccuracies in measurement, calculation, estimation, or interpretation of accounting standards. In contrast, fraud involves intentional manipulation for personal gain or the benefit of a specific group.

Fraud in financial statements is a deliberate act to produce misleading financial information, which can have a significant impact on the economic decisions made by users of these statements (Permatasari & Burhanudin, 2022). Such fraudulent activities can occur through misstatements, manipulation of accounting records, the intentional omission of transactions, or the improper application of accounting principles. The Association of Certified Fraud Examiners (ACFE) emphasizes that fraud involves deceptive acts aimed at obtaining personal gain. The failure of multi-layered audits to detect fraudulent financial statements has severely undermined the credibility of corporate financial statements, eroded investor confidence, and negatively impacted the capital markets as a whole.

According to the ACFE's 2024 Global Report, asset misappropriation is the most common type of fraud, followed by corruption, while financial statement manipulation is the least common. Although its incidence rate is low, financial statement manipulation results in the greatest financial losses. The banking sector is highly vulnerable to fraud due to the highly liquid nature of its assets, which makes them easier to manipulate (Herman et al., 2023). Data from the ACFE shows that the highest number of detected fraud cases occurs in this sector, highlighting the financial industry's vulnerability to various forms of fraud and its widespread negative impact. Further details can be seen in Figure 1 below:

Industry	Cases	Billing	Cash larceny	Cash on hand	Check and payment tampering	Corruption	Expense reimbursements	Financial statement fraud	Noncash	Payroll	Register disbursements	Skimming
Banking and financial services	305	12%	12%	18%	14%	44%	6%	5%	16%	4%	4%	8%
Manufacturing	175	27%	6%	4%	7%	55%	17%	6%	29%	10%	1%	9%
Government and public administration	170	24%	15%	8%	14%	52%	15%	4%	15%	18%	4%	11%
Health care	117	38%	9%	8%	12%	47%	21%	1%	22%	16%	2%	9%
Energy	78	19%	8%	9%	8%	60%	13%	4%	29%	10%	3%	6%
Retail	78	17%	10%	13%	5%	40%	6%	0%	32%	3%	9%	14%
Construction	73	38%	12%	7%	19%	52%	25%	10%	25%	23%	4%	23%
Education	70	36%	9%	13%	10%	43%	17%	0%	16%	7%	6%	19%
Insurance	69	19%	6%	6%	20%	49%	12%	9%	16%	10%	6%	9%
Technology	65	28%	9%	2%	9%	65%	11%	3%	32%	14%	0%	5%
Transportation and warehousing	60	18%	10%	18%	7%	52%	12%	2%	33%	10%	3%	7%
Religious, charitable, or social services	58	36%	17%	24%	17%	45%	29%	3%	10%	7%	2%	16%
Information	52	15%	10%	10%	0%	62%	10%	2%	27%	6%	0%	10%

Figure 2. Global Rank of Occupational Fraud
Source: A Report to the Nations (2024)

In Indonesia, fraud cases emerging in the banking industry have drawn public attention. For example, Bank Bukopin was involved in significant financial statement manipulation from 2015 to 2017, resulting in a reduction in net income of Rp896.44 billion in 2016 (Herman et al., 2023). Similarly, Bank Tabungan Negara (BTN) faced allegations of inaccuracies in its financial reports in 2018, including the sale of non-performing loans to a state-owned asset management company (PPA) and the granting of loans to affiliated entities (Safitri, 2020).

These incidents raise fundamental questions about the factors driving such fraudulent behavior. Various studies have been conducted using existing fraud theories across different sectors and time periods. One of the foundational theories serving as a reference in this study is the Fraud Hexagon Theory introduced by Vousinas (2019), which expands upon previous fraud theories by adding the element of collusion. This theory identifies six key elements that influence fraudulent behavior: pressure, opportunity, rationalization, capability/competence, ego/arrogance, and collusion.

Given the high frequency of fraud cases in the banking sector, the prevalence of such incidents in Indonesia, and the far-reaching impacts of fraudulent financial statements—including significant financial losses for investors, a decline in the confidence of domestic and foreign investors, and damage to the reputation of Indonesia's financial markets at the international level—this study aims to contribute to the literature by examining the extent to which the Fraud Hexagon Theory can explain the phenomenon of fraudulent financial statements at banking companies listed on the Indonesia Stock Exchange during the period from 2019 to 2023. The selection of this period aligns with the trend of increasing fraud in the banking sector, as noted by the ACFE in its 2024 report.

Since the independent variables are difficult or even impossible to measure directly across the six dimensions of the Fraud Hexagon Theory, proxies are used to simplify the measurement process. A proxy is a variable used as a substitute or representation of another variable that is considered too complex, costly, or unavailable to measure directly (Sekaran & Bougie, 2016). Thus, the pressure/stimulus element is proxied by external pressure and personal financial needs; opportunity is proxied by industry characteristics and ineffective oversight; rationalization is proxied by auditor opinions and total accruals; capability/competence is proxied by board turnover and the CEO's educational level; ego/arrogance is proxied by the CEO's dual leadership roles and the number of CEO photos; and collusion is proxied by state-owned enterprise status and collaboration on government projects.

Previous studies, such as those conducted by Sari & Lestari (2020) and Fouziah et al. (2022), have explored the factors influencing fraudulent financial statements using frameworks such as the Fraud Diamond Theory and the Fraud Hexagon Theory. However, there are still gaps in the research regarding variables such as proxies for collusion, which have not been extensively studied in the context of the banking sector. This study aims to address these gaps by replicating and expanding upon previous research, while employing a panel data regression model with Ordinary Least Squares (OLS) estimation. In this way, the study seeks to provide new insights into the dynamics of financial fraud in the Indonesian banking industry.

II. RESEARCH METHODOLOGY

A. *Research Design*

This study employs a quantitative approach. According to Sekaran & Bougie (2016), quantitative research is a method conducted through the collection and analysis of numerical data using statistical techniques to test hypotheses or answer research questions. This approach emphasizes objectivity, generalizability, and systematic methods to produce reliable findings. Therefore, this study employs a quantitative research design, relying on numerical data to test hypotheses and generalize the research results.

B. Population and Sample

The population in this study includes all banking companies listed on the Indonesia Stock Exchange (IDX) during the 2019–2023 period. Banking companies were selected because they represent the sector with the highest number of fraud cases, according to the 2024 report by the Association of Certified Fraud Examiners (ACFE).

The study period was set for 2019–2023. The year 2023 was chosen as the end of the study period because it represents the most recent annual financial report data available at the time the study was conducted. Meanwhile, 2019 was chosen as the start of the study period because it marked the beginning of an upward trend in fraud cases in the banking sector, as reported by the ACFE. During this period, the banking sector experienced an increase in fraud cases influenced by global economic pressures, the COVID-19 pandemic, and the growing complexity of digital financial transactions. The sampling technique used purposive sampling with the following criteria:

1. Banking entities that consistently published annual reports during the 2019–2023 period.
2. Entities with available data on all research variables for the 2019–2023 period.

C. Data Source and Collection Method

This study uses secondary data obtained from audited annual reports. All data were obtained from banking companies listed on the Indonesia Stock Exchange (IDX) via the official IDX website (www.idx.co.id) for the 2019–2023 period. The data collection method used was the documentation method, involving the collection and processing of data from the companies' annual reports.

D. Definition of Operational Variables

Dependent Variable

The dependent variable in this study is Fraudulent Financial Statements, measured using Discretionary Accruals (DA) based on the Modified Jones Model (1995). Discretionary accruals reflect abnormal accruals that are often used as an indicator of profit manipulation by management. The calculation of Discretionary Accruals is carried out through the following stages.

1. Determining TAC/TA (*Total Accruals*)

$$TA_{it} = NI_{it} - CFO_{it}$$

Where TA (total accruals) is estimated using Ordinary Least Squares as per the following formula:

$$\frac{TA_{it}}{A_{it-1}} = \beta_1 \frac{1}{A_{it-1}} + \beta_2 \frac{\Delta REV_{it}}{A_{it-1}} + \beta_3 \frac{PPE_{it}}{A_{it-1}} + \varepsilon$$

Notes:

TA_{it} : Total accruals of company "i" in period "t"

NI_{it} : Net income of Company "i" in period "t"

CFO_{it} : Cash flow from operating activities of Company "i" in period "t"

2. Determining NDA (Non-Discretionary Accruals)

Using the regression coefficients obtained in point 1 (one), NDA is determined using the following formula:

$$NDA_{it} = \beta_1 \frac{1}{A_{it-1}} + \beta_2 \left(\frac{\Delta REV_{it}}{A_{it-1}} - \frac{\Delta REC_{it}}{A_{it-1}} \right) + \beta_3 \frac{PPE_{it}}{A_{it-1}}$$

3. Determining DA (Discretionary Accruals)

Finally, DA, as a measure of earnings management, is determined using the following formula:

$$DA_{it} = \frac{TA_{it}}{A_{it-1}} - NDA_{it}$$

A positive DA indicates that the company engages in earnings management practices aimed at increasing reported profitability, while a negative DA indicates efforts to reduce profitability.

Independent Variables

The independent variables in this study refer to the six elements of the Fraud Hexagon, namely pressure, opportunity, rationalization, capability, ego, and collusion. Since each element cannot be measured directly, this study uses the following proxy variables.

Table 1. Proxies and Measurements of Independent Variables

Fraud Hexagon Element	Proxy	Measurement
Pressure	External Pressure	Leverage (LEV) = Total Liabilities / Total Assets
Pressure	Personal Financial Need	Executive Share Ownership (OSHIP) = Total Insider Ownership / Total Ownership
Opportunity	Nature of Industry	RECEIVABLE = (Receivables _t / Sales _t) - (Receivables _{t-1} / Sales _{t-1})
Opportunity	Ineffective Monitoring	BDOUT = Total Independent Board Members / Total Board Members
Rationalization	Auditor Opinion	Dummy variable (1 = Unqualified Opinion/WTP; 0 = otherwise)
Rationale	Total Accruals	TATA = Total Accruals / Total Assets
Capability	Change in Directors	Dummy variable (1 = change in directors; 0 = otherwise)
Capability	CEO Education Level	Dummy variable (1 = CEO holds a master's degree or higher; 0 = otherwise)
Ego	CEO Dual Role	Dummy variable (1 = CEO has a family relationship with the board of commissioners or holds another position in the company; 0 = otherwise)
Ego	Number of CEO Photos	Total number of CEO photographs disclosed in the annual report
Collusion	State-Owned Enterprise	Dummy variable (1 = state-owned enterprise; 0 = otherwise)

Fraud Hexagon Element	Proxy	Measurement
Collusion	Government Project Cooperation	Dummy variable (1 = participation in government projects; 0 = otherwise)

E. Data Analysis Method

This study uses panel data regression analysis to test the relationship between independent and dependent variables. Panel data regression combines cross-sectional and time-series data, allowing for a more accurate analysis of changes in variables across firms and over time. To determine the most appropriate panel data regression model, the following tests were conducted.

1. Chow Test, to compare the Common Effects Model (CEM) and the Fixed Effects Model (FEM).
2. Hausman Test, to compare the Fixed Effects Model (FEM) and the Random Effects Model (REM).
3. Lagrange Multiplier Test, to compare the Common Effects Model (CEM) and the Random Effects Model (REM).

F. Classical Assumptions and Hypothesis Testing

After the panel data regression model was determined, classical assumption tests were conducted to ensure that the model met statistical assumptions, thereby producing unbiased and efficient estimates. The classical assumption tests used included the normality test, the autocorrelation test, the multicollinearity test, and the heteroscedasticity test. The implementation of each test was tailored to the characteristics of the selected panel data model.

Next, hypothesis testing was conducted using the F-test to examine the simultaneous effect of all independent variables and the t-test to examine the partial effect of each independent variable on the dependent variable. Additionally, the Adjusted R^2 value was used to measure the model's ability to explain the variation in the dependent variable. An Adjusted R^2 value that approaches 1 indicates that the model has a better ability to explain the variation in the dependent variable.

III. RESULTS AND DISCUSSION

A. Description of the Research Subjects

The research subjects consist of business entities operating in the banking sector and listed on the Indonesia Stock Exchange (IDX) during the 2019–2023 period. The banking sector was chosen because it has consistently shown high vulnerability to fraud, as highlighted by the ACFE, which identified this sector as having the highest number of fraud cases in financial reporting. The final sample included 34 companies, yielding 170 observations over the five-year study period, as shown below:

Table 2. Sample Selection

No.	Criteria	Total
	Banking companies listed on the IDX during the 2019–2023 period	47
1	Entities that consistently published annual reports during the 2019–2023 period.	(1)

No.	Criteria	Total
2	Availability of data related to the research variables in official publications from 2019 to 2023	(12)
	Total number of companies that met the requirements	34
	Total number of data observations	$34 \times 5 = 170$

Source: Data processed by the researcher (2024)

B. Panel Data Regression Models

Three panel data regression models—the Common Effects Model (CEM), the Fixed Effects Model (FEM), and the Random Effects Model (REM)—were tested to determine the most appropriate model for analyzing the data. Based on the Chow Test, the Hausman Test, and the Lagrange Multiplier Test, the Common Effects Model (CEM) was selected as the best model.

Table 3. CEM Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.556573	0.167740	3.318078	0.0011
LEV	-0.485166	0.144888	-3.348565	0.0010
OSHIP	0.761346	3.466794	0.219611	0.8265
REC	0.074999	0.021454	3.495870	0.0006
BDOUT	-0.254347	0.268943	-0.945729	0.3457
TATA	0.075893	0.059490	1.275729	0.2039
DCHANGE	0.054769	0.055533	0.986232	0.3255
DLEVEL	-0.048049	0.056896	-0.844502	0.3997
DDUAL	-0.052306	0.068531	-0.763242	0.4465
CEOPIC	-0.003947	0.007733	-0.510395	0.6105
DSOE	-0.037469	0.072595	-0.516134	0.6065
DGOVP	0.058276	0.065536	0.889219	0.3752

Source: Primary Data Processing (2024)

From Table 3, we can conclude that the CEM results shown are used for further analysis due to their suitability for the research objectives and data characteristics. Therefore, two main classical assumption tests were conducted: multicollinearity and heteroscedasticity.

C. Classical Assumption Test Results

	LEV	OSHIP	REC	BDOUT	AUD REPORT	TATA	DCHANGE	CEODEDU	CEODUAL	CEOPIC	SOE	GOVP
LEV	1	0,109	0,012	0,207	N/A	-0,060	-0,001	0,013	-0,118	-0,022	-0,040	0,085
OSHIP	0,109	1	0,089	-0,241	N/A	0,002	0,139	0,130	0,122	-0,184	-0,081	-0,096
REC	0,012	0,089	1	-0,077	N/A	0,048	0,082	-0,072	-0,039	-0,080	0,049	0,067
BDOUT	0,207	-0,241	-0,077	1	N/A	-0,049	-0,024	0,251	-0,012	0,062	-0,062	-0,194
AUDREPORT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TATA	-0,060	0,002	0,048	-0,049	N/A	1	0,048	-0,121	0,036	0,063	-0,051	-0,145
DCHANGE	-0,001	0,139	0,082	-0,024	N/A	0,048	1	-0,133	-0,166	0,081	0,208	0,093
CEODEDU	0,013	0,130	-0,072	0,251	N/A	-0,121	-0,133	1	0,050	-0,007	0,121	-0,221
CEODUAL	-0,118	0,122	-0,039	-0,012	N/A	0,036	-0,166	0,050	1	0,034	-0,005	0,110
CEOPIC	-0,022	-0,184	-0,080	0,062	N/A	0,063	0,081	-0,007	0,034	1	0,203	0,018
SOE	-0,040	-0,081	0,049	-0,062	N/A	-0,051	0,208	0,121	-0,005	0,203	1	0,280
GOVP	0,085	-0,096	0,067	-0,194	N/A	-0,145	0,093	-0,221	0,110	0,018	0,280	1

Figure 2. Multicollinearity Test Results

Source: Primary Data Processing (2024)

The correlation matrix for the independent variables is presented in Figure 2. The results show that all pairwise correlations among the independent variables are below the 0.85 threshold, indicating the absence of serious multicollinearity issues. Furthermore, the Variance Inflation Factor (VIF) values for all variables are below 10, further reinforcing the absence of multicollinearity. In conclusion, the regression model is free from multicollinearity, ensuring that the relationship between the independent and dependent variables is estimated accurately.

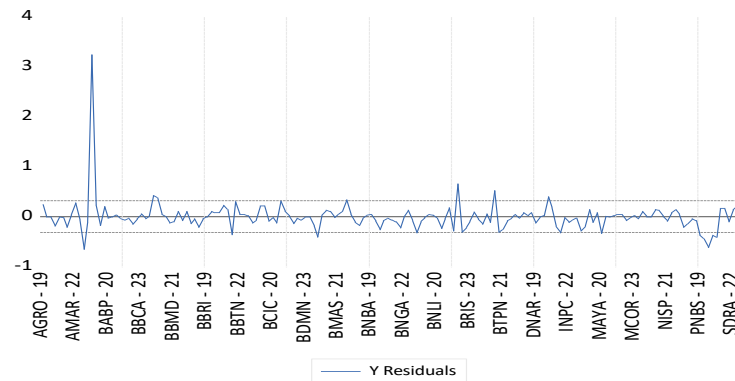


Figure 3. Heteroscedasticity Test Results
Source: Primary Data Processing (2024)

The Residual Plot is used to detect heteroscedasticity, and the results are summarized in Figure 3. The test revealed no significant relationship between the absolute residuals and the independent variables, as the scores remained within a reasonable range (500 to -500). Therefore, the regression model satisfies the assumption of homoscedasticity, ensuring the reliability of the estimated coefficients.

D. Hypothesis Test Results

Table 4. F-Test Results

F-statistic	3.393075
Prob(F-statistic)	0.000307

Source: Primary Data Processing (2024)

Hypothesis testing was conducted using t-tests and F-tests to evaluate the relationship between the independent variables and financial statements containing fraud. From Table 4, we can see that the F-statistic value of 3.393 (p-value = 0.0003) indicates that the independent variables collectively influence financial statements containing fraud.

Table 5. Results of the t-Test

Variable	Coefficient	t-Statistic	Prob. $\alpha = 0.05$
External Pressure	-0.485	-3.349	0.001
Personal Financial Needs	0.761	0.220	0.827
Nature of Industry	0.075	3.496	0.001

Variable	Coefficient	t-Statistic	Prob. $\alpha = 0.05$
Ineffective Monitoring	-0.254	-0.946	0.346
Total Accruals / Total Assets	0.076	1.276	0.204
Change in Directors	0.055	0.986	0.326
CEO Educational Level	-0.048	-0.845	0.400
CEO Duality	-0.052	-0.763	0.447
Frequency of CEO Photos	-0.004	-0.510	0.611
State-Owned Enterprise	-0.037	-0.516	0.607
Cooperation with Government Projects	0.058	0.889	0.375

Source: Primary Data Processing (2024)

From Table 5, we can see that the individual t-tests reveal significant effects for two variables:

1. External Pressure (LEV): Negative and significant (t-statistic = -3.348, p-value = 0.001). Higher external pressure reduces the likelihood of financial statements containing fraud.
2. Industry Characteristics (REC): Positive and significant (t-statistic = 3.407, p-value = 0.0009). Changes in accounts receivable increase the likelihood of fraud.

Other variables, including ineffective oversight, total accruals, board turnover, CEO education level, CEO dual leadership, CEO photo frequency, state-owned enterprises, and collaboration on government projects, did not show a significant effect.

E. Coefficient of Determination (Adjusted R^2) Results

Table 5. T-test

R-squared	0.191087
Adjusted R-squared	0.134770

Source: Primary Data Analysis (2024)

The adjusted R^2 value of 0.134770 indicates that the independent variables explain approximately 13.48% of the variation in financial statements containing fraud. The remaining 86.52% is influenced by other factors not included in the model.

F. Discussion

Influence of External Pressure on Fraudulent Financial Statements

The negative effect of external pressure on fraudulent financial statements is consistent with previous research showing that high leverage encourages management to comply with regulations and maintain transparency to avoid sanctions and reputational damage. These findings underscore the role of external stakeholders in preventing fraudulent behavior.

Influence of Industry Characteristics on Fraudulent Financial Statements

The positive effect of industry characteristics highlights the vulnerability of certain sectors to manipulation. Changes in accounts receivable, which are often based on estimates, provide an opportunity for earnings management. These results underscore the need for stricter oversight in industries vulnerable to manipulation.

Non-Significant Variables

Some variables showed no significant influence, likely due to the dominance of external pressures and industry characteristics, as well as strict regulatory oversight in the banking sector. For example:

1. Ineffective Oversight: The lack of significance may be due to the effectiveness of other governance mechanisms, such as external auditors or audit committees, as noted by Klein (2002).
2. Cooperation with Government Projects: Low levels of involvement and a strong governance framework in state-owned enterprises may explain the absence of a significant relationship.

IV. CONCLUSION

This study aims to analyze the factors influencing fraudulent financial statements in banking companies listed on the Indonesia Stock Exchange during the 2019–2023 period using the Fraud Hexagon Theory. The results show that external pressure, proxied by leverage, has a significant negative effect on fraudulent financial statements, while industry characteristics, proxied by changes in accounts receivable, have a significant positive effect. Meanwhile, the other Fraud Hexagon proxies—namely, personal financial needs, ineffective oversight, auditor's opinion, total accruals, board turnover, CEO's educational level, CEO's dual leadership roles, number of CEO photos, state-owned enterprise status, and collaboration on government projects—did not show a significant effect on fraudulent financial statements. These findings indicate that financial statement fraud practices in the Indonesian banking sector are more influenced by external pressures and industry characteristics than by governance factors or executive characteristics represented by the Fraud Hexagon proxies in this study.

This study provides an empirical contribution to the literature on the application of the Fraud Hexagon Theory in detecting fraudulent financial statements in Indonesia's banking sector. The results indicate that not all elements of the Fraud Hexagon have the same ability to explain the occurrence of financial statement fraud; thus, the effectiveness of each element may vary depending on industry characteristics and the business environment. From a practical perspective, the findings of this study are expected to serve as input for regulators, auditors, investors, and company management in strengthening fraud prevention efforts through increased monitoring of external financial pressures and industry characteristics, as well as by enhancing transparency and the quality of corporate governance.

Nevertheless, this study has limitations. The Adjusted R^2 value of 13.48% indicates that the research model can only explain a small portion of the variation in fraudulent financial statements, suggesting that other factors outside the model influence the occurrence of financial statement fraud. Therefore, future research is recommended to include other relevant variables, such as auditor switching, audit quality, ownership structure, or corporate governance mechanisms, to improve the model's explanatory power. Additionally, expanding the scope of the " " study to other industrial sectors and extending the observation period is expected to yield more comprehensive findings with a higher degree of generalizability.

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REFERENCES

- Abbott, L. J., Parker, S., & Peters, G. F. (2004). Audit committee characteristics and restatements. *Auditing: A Journal of Practice & Theory*, 23(1), 69–87. <https://doi.org/10.2308/aud.2004.23.1.69>
- ACFE. (2024). 2024 report to the nations. Diakses dari <https://legacy.acfe.com/report-to-the-nations/2024/>
- Albrecht, W. S., Albrecht, C. O., Albrecht, C. C., & Zimbelman, M. F. (2005). Fraud triangle theory. In *Fraud examination* (3rd ed.). Thomson/South-Western.
- Tiara, A., Wijayanti, A., & Wibawaningsih, E. J. (2021). Pengaruh tekanan internal dan eksternal terhadap kecurangan laporan keuangan. *Prosiding BIEMA*, 2, 379–395.
- AntaraNews. (n.d.). BI paparkan tantangan menjaga stabilitas sistem keuangan Indonesia. Antara News. Diakses dari https://www.antaranews.com/berita/4371511/bi-paparkan-tantangan-menjaga-stabilitas-sistem-keuangan-indonesia#google_vignette
- Aprilia, S. R. N. A., & Furqani, A. (2021). Deteksi Kecurangan Laporan Keuangan dengan Metode Fraud Diamond pada Perusahaan Jasa. *Journal of Accounting And Financial Issue*, vol. 2 (2). <https://doi.org/10.24929/jafis.v2i2.1661>
- Arief, I. S. (2018). Pengaruh kedudukan kelembagaan, ambiguitas peran dan konflik peran terhadap independensi aparat pengawasan intern pemerintah (APIP) dengan budaya lokal sebagai variabel moderating. *Jurnal Seiko*, 1(2), 128-144. <https://doi.org/10.37531/sejaman.v1i2.225>
- Ayuningtyas, N. P. W., & Lubis, S. H. (2023). Analisis Perspektif Crowe'S Fraud Pentagon Dalam Mendeteksi Indikasi Fraudulent Financial Statement. *Fortunate Business Review*, 3(1), 9-24.
- Basuki, A. T., & Yuliadi, I. (2015). *Electronic data processing (SPSS 15 dan Eviews 7)*. Yogyakarta: Danisa Media, 167.
- Beasley, M. S. (1996). An empirical analysis of the relation between the board of director composition and financial statement fraud. *Accounting review*, 443-465.
- Brigham, E. F., & Houston, J. F. (2019). *Fundamentals of Financial Management* (15th ed.). Cengage Learning.
- Casabona, P. A., & Grego, M. J. (2003). SAS 99--consideration of fraud in a financial statement audit: A revision of statement on Auditing Standards 82. *Review of business*, 24(2), 16.
- Chatterjee, A., & Hambrick, D. C. (2007). It's all about me: Narcissistic chief executive officers and their effects on company strategy and performance. *Administrative Science Quarterly*, 52 (3), 351–386.
- Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1994). Detecting earnings management. *The Accounting Review*, 70(2), 193–225. <https://www.jstor.org/stable/248303>
- Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1996). Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC. *Contemporary Accounting Research*, 13 (1), 1–36. <https://doi.org/10.1111/j.1911-3846.1996.tb00492.x>

- DeFond, M. L., & Jiambalvo, J. (1994). Debt covenant violation and manipulation of accruals. *Journal of Accounting and Economics*, 17 (1-2), 145–176. [https://doi.org/10.1016/0165-4101\(94\)90008-6](https://doi.org/10.1016/0165-4101(94)90008-6)
- Demerjian, P., Lewis, M., Lev, B., & Mcvay, S. (2013). Managerial ability and earnings quality. *The Accounting Review*, 88(2), 463–498. <https://doi.org/10.2308/accr-50318>
- Farber, D. B. (2005). Restoring trust after fraud: Does corporate governance matter? *The Accounting Review*, 80 (2), 539–561. <https://doi.org/10.2308/accr.2005.80.2.539>
- Faccio, M. (2006). Politically connected firms. *American Economic Review*, 96 (1), 369–386. <https://doi.org/10.1257/000282806776157651>
- Francis, J., LaFond, R., Olsson, P., & Schipper, K. (2004). Costs of equity and earnings attributes. *The Accounting Review*, 79 (4), 967–1010. <https://doi.org/10.2308/accr.2004.79.4.967>
- Fouziah, S. N., Suratno, & Djaddang, S. (2022). Relevansi teori fraud hexagon dalam mendeteksi fraudulent financial statement pada perusahaan sektor perbankan. Repository Syekh Nurjati. <http://repository.syekhnurjati.ac.id/10414/>
- Gaio, C., & Pinto, I. (2018). The role of state ownership on earnings quality: evidence across public and private European firms. *Journal of Applied Accounting Research*, 9(1). <https://doi.org/10.1108/jaar.2008.37509aaa.001>
- Ghozali, I. (2018). Aplikasi Analisis Multivariate dengan Program IBM SPSS 25 Edisi 9. Semarang: Badan penerbit Universitas Diponegoro. Variabel Pemoderasi. *E-Jurnal Akuntansi Universitas Udayana*, 23(2), 1470.
- Gitman, L. J., & Zutter, C. J. (2011). *Principles of Managerial Finance* (14th ed.). Pearson Education.
- Hermalin, B. E., & Weisbach, M. S. (1998). Endogenously chosen boards of directors and their monitoring of the CEO. *American Economic Review*, 88 (1), 96–118.
- Hayward, M. L. A., & Hambrick, D. C. (1997). Explaining the premiums paid for large acquisitions: Evidence of CEO hubris. *Administrative Science Quarterly*, 42 (1), 103–127. <https://doi.org/10.2307/2393810>
- Herman, A. P., Afni, Z., & Sukartini. (2023). Analisis pengaruh fraud hexagon terhadap fraudulent financial statement pada perusahaan sektor perbankan yang terdaftar di bursa efek Indonesia selama tahun 2019-2022. *Jurnal Akuntansi dan Keuangan*, 5 (2), 39–46. <http://ojs.politeknikjambi.ac.id/jaab>
- Hillier, D., Ross, S. A., Westerfield, R. W., & Jaffe, J. (2017). *Corporate Finance: European Edition* (4th ed.). McGraw-Hill Education.
- Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics*, 33 (3), 375–400. <https://dx.doi.org/10.2139/ssrn.246674>
- Kothari, S. P., Leone, A. J., & Wasley, C. E. (2005). Performance matched discretionary accrual measures. *Journal of Accounting and Economics*, 39 (1), 163–197. <https://doi.org/10.1016/j.jacceco.2004.11.002>
- Laporan Keuangan BUMN. (n.d.). Tempo. Diakses dari <https://www.tempo.co/kolom/laporan-keuangan-bumn-823407>

- Masrifah, A., & Rahayu, R. A. (2023). Peran moderasi dewan komisaris independen terhadap nilai perusahaan. Archive UMSIDA. <https://doi.org/10.21070/ups.4696>
- Napitupulu, R. B., Simanjuntak, T. P., Hutabarat, L., Damanik, H., Harianja, H., Sirait, R.T.M., Tobing, L., & Ria, C. E. (2021). Penelitian bisnis, teknik dan analisa dengan SPSS - STATA - Eviews (1st ed.). Madenatera.
- Nurjanah. (2023). Pendeksi kecurangan laporan keuangan dengan ratio index beneish m-score pada perusahaan asuransi yang terdaftar di BEI periode 2018-2020. Repository Syekh Nurjati. <http://repository.syekhnurjati.ac.id/id/eprint/10414>
- Octani, J., Dwiharyadi, A., & Djefris, D. (2022). Analisis pengaruh fraud hexagon terhadap fraudulent financial reporting pada perusahaan sektor keuangan yang terdaftar di bursa efek Indonesia selama tahun 2017-2020. Jurnal Akuntansi, Bisnis dan Ekonomi Indonesia (JABEI), 1, 36-49. <http://dx.doi.org/10.30630/jabei.v1i1.9>
- Parrino, R., Kidwell, D. S., & Bates, T. W. (2018). Fundamentals of Corporate Finance (3rd ed.). Wiley.
- Rahmattullah. (2024). WTP, Tapi Korupsi? DJPb - Kementerian Keuangan. Diakses dari <https://djpb.kemenkeu.go.id/kppn/sukabumi/id/data-publikasi/artikel/2996-wtp,-tapi-korupsi.html>.
- Renaldo, N., Suharti, Suyono, & Suhardjo. (2022). Manajemen laba: Teori dan pembuktian. CV. Literasi Nusantara Abadi.
- Rohman, A. (2023). Peran perbankan dalam perekonomian Indonesia saat ini. FEB UB. Diakses dari <https://feb.ub.ac.id/peran-perbankan-dalam-perekonomian-indonesia-saat-ini/>.
- Ross, S. A., Westerfield, R. W., & Jaffe, J. (2020). Corporate Finance (12th ed.). McGraw-Hill Education.
- Salim, M., Akbar, M. A., Sutisna, E., & Anwar, A. M. (2024). Fraud hexagon perspective on financial statement fraud in Indonesia insurance companies. Keuangan & Riset, 16 (1), 172–184. <https://doi.org/10.22225/kr.16.1.2024.172-184>
- Sekaran, U. and Bougie, R. (2016) Research Methods for Business: A Skill-Building Approach. 7th Edition. Wiley & Sons, West Sussex.
- Shleifer, A., & Vishny, R. W. (1994). Politicians and firms. Quarterly Journal of Economics, 109 (4), 995–1025. <https://doi.org/10.2307/2118354>
- Sweeney, A. P. (1994). Debt-covenant violations and managers' accounting responses. Journal of Accounting and Economics, 17 (3), 387–404. [https://doi.org/10.1016/0165-4101\(94\)90030-2](https://doi.org/10.1016/0165-4101(94)90030-2)
- Warfield, T. D., Wild, J. J., & Wild, K. L. (1995). Managerial ownership, accounting choices, and informativeness of earnings. Journal of Accounting and Economics, 20 (3), 279–301. [https://doi.org/10.1016/0165-4101\(94\)00393-J](https://doi.org/10.1016/0165-4101(94)00393-J)
- Weisbach, M. S. (1998). Outside directors and CEO turnover. Journal of Financial Economics, 49 (3), 335–357. [https://doi.org/10.1016/0304-405X\(88\)90053-0](https://doi.org/10.1016/0304-405X(88)90053-0)
- Vousinas, G. L. (2019). Advancing theory of fraud: the S.C.O.R.E. model. Journal of Financial Crime, Emerald Group Publishing Limited, vol. 26(1), 372–381. <https://doi.org/10.1108/JFC-12-2017-0128>