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Financial Statement Fraud Detection Using the Fraud Triangle Theory: A Study of an Indonesian Healthcare Company Listed on The Indonesian Stock Exchange In 2021-2023

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Abstract
This study investigates the influence of the fraud triangle on financial statement fraud, focusing on pressure (financial stability and financial target), opportunity (nature of industry and ineffective monitoring), and rationalization. The research sample comprises healthcare companies listed on the Indonesia Stock Exchange (IDX) from 2021 to 2023. Using a purposive sampling method, 26 healthcare companies were selected for analysis. The study employs logistic regression as the analytical method, incorporating the overall model fit test, Hosmer and Lemeshow test, goodness-of-fit test, and classification matrix analysis. The findings reveal that financial targets and the nature of the industry positively impact financial statement fraud, whereas financial stability, ineffective monitoring, and rationalization do not exhibit significant effects.

BACKGROUND

Financial statements are reports that function as a communication tool between parties within the company, both external and internal parties related to the company's economic activities, and a tool that can show its accountability to stakeholders (Demetriades & Owusu-Agyei, 2022). The performance of the company is reflected in its financial statements, which serve as the primary focus for investors when evaluating potential investments. Financial statements are used as indicators of the company's operational efficiency and effectiveness. Therefore, these reports are expected to provide relevant and detailed information to meet the needs of various stakeholders (Hasanaj & Kuqi, 2019). The information in financial statements becomes more valuable when compared with previous periods or with other companies in the same industry. However, this information must not be presented to benefit certain parties while disadvantaging others.

A company's primary goal is to maximize profits, which leads many businesses to employ various methods to achieve this, including committing financial fraud. The increasing intensity of economic competition among companies is one of the driving factors behind fraudulent activities. According to the (Association of Certified Fraud Examiners (ACFE), 2018) Fraud is the misuse of authority within a position for personal gain or self-enrichment. Financial statement fraud is a form of deception that entails altering, fabricating, or modifying accounting records or data and supporting documents used to prepare financial statements. Additionally, financial statement fraud can take the form of misrepresentation or omission of significant information related to events, transactions, or critical data in financial reports (Huang et al., 2016). Intentional misapplication of accounting standards that govern the valuation, categorization, formatting, or disclosure of financial information also constitutes another form of fraudulent financial reporting (Meihendri et al., 2022). Manipulating a financial statement to create a favourable financial image often allows management to enhance the report, attracting investors and creditors to invest capital or extend loans to the company.

Financial statement fraud has become a major issue globally, representing a significant failure of corporate accountability and often leading to market value declines or even bankruptcy. According to ACFE (2024), one of the most notable cases highlighting the negative impact of financial statement fraud is the scandal involving the Chinese property giant, Evergrande Group, in 2021. The company engaged in financial manipulation and asset inflation to project a positive financial health image to investors. As a result, Evergrande announced its failure to repay debts exceeding $300 billion, showcasing the devastating consequences of such fraudulent practices. The business model employed by this company relies on debt and pre-sales, meaning it sells apartments that have not been completed, leading to an inability to finish projects when demand drops. The main findings from this case include the company’s massive debt, lack of transparency in financial reporting, and an investigation into the CEO of Evergrande Group for alleged legal violations. This case has far-reaching consequences because the real estate sector contributes up to 30% of China’s Gross Domestic Product (GDP) (O’Brien, 2024).

In Indonesia, financial statement fraud has also involved a Healthcare company, one of which PT Indofarma Tbk is a notable case. Based on the investigative audit conducted by the Indonesian Audit Board from 2020 to 2023, it was found that the company engaged in financial management irregularities that led to criminal acts. PT Indofarma Tbk manipulated its financial statement to create a positive image of the company’s performance. This fraudulent activity resulted in state losses amounting to Rp 371 billion (BPK,2024). In this case, several serious irregularities were found involving the manipulation of financial statements to improve the company’s performance through financial “window dressing”. The findings included fictitious transactions, such as sales of fast-moving consumer goods (FMCG) that never took place. Additionally, expenditures were made without clear transactional bases, including the use of company credit cards for personal expenses and payments for operations outside the established guidelines. This was further exacerbated by inefficient financial management, including delayed employee salary payments, and cases of tax manipulation related to fictitious transactions (Sidik, 2024).

To detect fraudulent activities, a theoretical framework is needed to explain fraud perpetrators' motivations, opportunities, and justification. The fraud triangle is a theory introduced by Donal Cressey (1953). This theory identifies three conditions that drive individuals to commit financial statement fraud: pressure, opportunity, and rationalization. Pressure refers to the internal or external drive that pushes someone to commit fraud. Opportunity arises from weak internal control, creating a fraud gap. Rationalization is the mindset where the individual justifies their actions as not wrong (Sánchez-Aguayo et al.,

2022). Combining these three elements is critical in encouraging management to commit financial statement fraud, as each statement is interconnected and creates an environment where such actions are more likely to occur (Huang et al., 2016). Despite this awareness, financial statement fraud continues to be a frequent issue, so researchers continue to apply the fraud triangle theory to detect fraud in financial reporting.

Pressure factors consist of external pressure, financial targets, financial stability, and personal financial needs. However, this study specifically examines financial stability and financial targets as key pressure factors. In terms of opportunity, factors such as the nature of the industry, ineffective monitoring, and organizational structure play a role, with this research focusing on the first two aspects. The final component, rationalization, is represented in this study by auditor changes. To improve fraud detection, the Beneish M-Score is incorporated as an additional analytical tool. This model helps assess the likelihood of companies engaging in earnings manipulation (Shahzadi et al., 2024).

Previous studies have widely applied the fraud triangle theory to analyze fraudulent financial reporting. Such as Tiffani & Marfuah (2015) found that financial stability and external pressure have a significant influence on fraud, while effective monitoring has a negative effect, and financial targets do not show a significant impact. Widarti (2015) concluded that financial and external pressures significantly impact, while other factors such as personal financial needs and ineffective monitoring do not. Wahyudi; & Budiwitjaksono (2017) discovered that only rationalization has a significant influence. Research by Abdullahi & Mansor (2018), as well as Owusu et al., (2022), support the view that all three elements of the theory (pressure, opportunity, and rationalization), Puspitaningrum et al. (2019) and Sabatian & Hutabarat (2020) emphasized external pressure and rationalization as key contributing factors., Doan & Ta (2023) further identified that several firm characteristics—such as debt ratio, return on assets, board independence, auditor selection, audit changes, and a history of material misstatements—affect the likelihood of fraud, and Rahman & Jie (2024) found that high levels of debt and good corporate quality positively influence the occurrence of fraud, while return on equity, audit size, and the proportion of independent directors have a negative influence.

All of these findings reinforce the results of (Shahzadi et al., 2024) who confirmed that all components of the fraud triangle significantly affect the occurrence of fraud in financial statements. Given the inconsistencies in previous findings and the persistence of fraud cases, this study aims to re-examine the influence of the three elements within the context of healthcare companies in Indonesia. Based on this background, the researcher is interested in conducting a study titled: "Fraud Detection Using the Fraud Triangle Theory: A Study on Indonesian Healthcare Companies (Listed on the Indonesia Stock Exchange in 2021–2023)."

LITERATURE REVIEW AND HYPOTHESIS

Fraud

Statement on Auditing Standards (SAS) No. 99 defines fraud as a deliberate act that leads to material misrepresentation in audited financial statements. According to the Indonesian Dictionary (KBBI), fraud is a noun that refers to an act of dishonesty or deception. Fraud occurs when an individual or group engages in unethical practices for personal gain at the expense of others (M. J. Rahman & Jie, 2024). The Association of Certified Fraud Examiners (ACFE), one of the largest anti-fraud organizations worldwide, defines fraud as a deliberate action of deception aimed at securing personal or business benefits, potentially causing harm to others, either directly or indirectly (ACFE, 2016). Similarly, the Oxford English Dictionary describes fraud as a criminal act involving false representation to gain an

unfair advantage or unlawfully acquire another person's rights or interests (Chigozie, 2022). Additionally, the ACFE (2016) introduces the "Fraud Tree," a framework that classifies fraud into three primary categories: Corruption, Asset Misappropriation, and Financial Statement Fraud.

Financial Statement Fraud

Financial statement fraud occurs when an employee intentionally manipulates or omits material information in a company's financial reports. This can include actions such as falsely recording income, understating expenses, or deliberately inflating reported assets (ACFE, 2016). Fraudulent financial reporting often involves deliberate misrepresentation to gain an unfair advantage. This can be achieved by withholding essential disclosures or altering specific account details to mislead financial statement users (Olakunle ACA & Ebenezer, 2021).

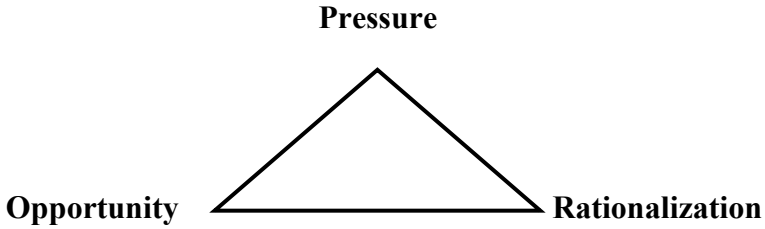
According to Wells (in Meihendri et al., 2022), Fraud in financial statements includes several schemes, namely:

1. Modifying, altering, or manipulating supporting data, financial records, or business transactions.
2. Deliberately omitting significant events, transactions, accounts, or information critical for financial statement presentation.
3. Intentionally using inappropriate accounting principles, policies, or procedures to measure, identify, report, and reveal business events and transactions.
4. It purposefully excludes information related to the accounting principles and policies applied in financial reporting.

Fraud has also been explained in the Professional Standards of Public Accountants in the Statement of Audit Standards No. 16 as irregularities. According to this statement, irregularities indicate deliberate errors in financial statements, such as incorrect presentation of financial statements, referred to as financial information fraud or management fraud.

Fraud Triangle Theory

The Fraud Triangle Theory explores the underlying causes of fraud. This concept was first introduced by Donald R. Cressey in 1953 (Sánchez-Aguayo et al., 2022). In the fraud triangle, three factors cause fraud and are illustrated in the following figure:



Pressure is the condition in which a person is under pressure to do fraud. According to SAS No. 99, four types of pressure conditions often cause fraud, namely: external pressure**,** financial stability**,** financial target**,** and personal financial need**.** Pressure is considered the most significant driving factor among the other elements in the fraud triangle (Owusu et al., 2022). Pressure can include economic demand, lifestyle, and others, both in terms of finance and non-finance. Financial pressure arises when fraudsters need money to meet their needs. Meanwhile, non-financial pressure occurs when a manager is expected to demonstrate their best performance (Amaliah et al., 2015).

Opportunity is any opportunity that allows fraud to occur (Doan & Ta, 2023). Based on SAS No. 99, it is stated that opportunities for fraud can arise under three conditions, namely nature of the Industry, ineffective monitoring, and organization structure. This

opportunity arises when a person is confident that his actions will not be revealed or has previously seen other colleagues commit fraud without being sanctioned so that the fraudster does not feel worried. Inadequate control systems, insufficient oversight, and ambiguous procedures can create opportunities for fraud to occur (Owusu et al., 2022).

Rationalization refers to a mindset, behaviour, or a combination of ethical values that enable specific individuals or groups to engage in fraudulent activities or environmental situations that encourage them to rationalize the act of fraud. Rationalization allows fraud perpetrators to convince themselves that their actions are not wrong, even though they violate ethical and legal standards. This mindset arises because the perpetrators do not want their actions to be exposed, leading them to find ways to justify what they have done. This justification stems from the perpetrator's desire to feel safe and avoid punishment (Aprilia, 2017).

Research Hypothesis

Financial stability in driving management to commit Financial Statement Fraud

Financial stability is a key component of pressure in the fraud triangle, which can contribute to financial statement fraud. Pressure may stem from both internal and external factors, prompting fraudulent actions. In financial statement fraud, this pressure often arises from the need to maintain financial stability, achieve financial targets, and manage debt, potentially leading management to manipulate financial reports (Shahzadi et al., 2024). Financial stability refers to conditions where managers experience significant pressure to engage in fraudulent activities, such as financial statement manipulation, particularly when a company's financial health and profitability are at risk due to unfavorable economic conditions, industry challenges, or organizational-specific circumstances (Meihendri et al., 2022). When a country's economic conditions are unstable, companies may struggle to maintain financial stability, increasing the likelihood of fraud as management seeks to present more favorable financial statements. A company that appears financially stable tends to enhance its perceived value among stakeholders. Generally, financial stability is assessed by evaluating a company's ability to manage debt and sustain a strong financial position.

In this study, Asset Growth is used as a proxy to measure financial stability. A stable or increasing asset growth rate may indicate a financially sound company with less pressure on management. When a company experiences consistent asset growth, the likelihood of financial statement manipulation decreases, as there is less incentive for fraudulent practices (Darmawan & Saragih, 2017). This relationship is essential in analyzing the potential pressure that can motivate management to commit fraudulent actions.. Research conducted by Shahzadi et al. (2024)found that the Asset Growth Rate (AGR) significantly influences financial fraud. This impact arises from the pressure companies face to maintain a strong financial position and demonstrate sustained growth to stakeholders.

H1: Financial Stability have a negative effect on Financial Statement Fraud.

Financial Target in driving management to commit Financial Statement Fraud

Financial targets constitute a form of pressure, a fundamental component of the fraud triangle that can contribute to financial statement fraud. In many instances, this pressure emerges from the necessity to achieve revenue objectives, ensuring that a company's performance aligns with predetermined goals (Kazimean et al., 2019). As noted by Skousen et al., 2009, financial targets represent the financial goals set by a company for a specific timeframe, which are then compared against past performance, various business units, or industry benchmarks. Managers are tasked with optimizing performance to fulfill these financial targets. Several financial indicators can be utilized to measure financial targets, including EBIT, EBITDA, Operating profit, earnings per share, and additional net revenue,

ROE, and ROA. This study adopts Return on Assets (ROA) as a proxy for financial targets, as it is considered a standardized and reliable measure of financial performance (Narsa et al., 2023).

ROA is widely employed to assess managerial effectiveness and determine financial incentives such as bonuses and currency appreciation. It functions as a measure of operational efficiency, indicating how efficiently a company utilizes its assets (Skousen et al., 2009). A higher ROA target may increase the pressure on management, potentially leading to fraudulent practices aimed at meeting performance expectations. Research by Shahzadi et al. (2024) found that financial targets, as measured by ROA, significantly and positively influence financial fraud. This finding implies that firms with ambitious ROA targets often experience heightened pressure to achieve desired outcomes, increasing the likelihood of financial statement manipulation to meet these expectations.

H2: Financial Target has a positive effect on Financial Statement Fraud.

Nature of Industry in driving management to commit Financial Statement Fraud

The nature of the industry is a part of the opportunity, one of the elements in the fraud triangle that can facilitate financial statement fraud. The opportunity aspect of fraud can be related to specific characteristics or conditions in the industry. Every industry has unique attributes in financial management, including the handling of receivables, which varies based on the approach of each company's management. Some accounts in financial statements, including items like obsolete inventories and bad debts, have easily predictable balances. This situation can create opportunities for managers to engage in financial statement manipulation, such as changing the amounts reported on specific accounts to make financial results look better. (Herdjiono & Kabalmay, 2021).

The nature of industry represents the optimal conditions for a company within its industry. In this research, the researchers use accounts receivable as a measure of the Nature of the Industry because financial statements include accounts whose balances are set by the company, such as accounts for uncollectible receivables, the condition of accounts receivable reflects the natural characteristics of an industry, which can influence manager’s responses in various ways. Well-managed companies tend to focus on reducing the amount of receivables and increasing cash inflows. (Achmadiyah et al., 2023). According to Khamainy et al, (2022) (in Chimonaki et al., 2023) discovered that industry characteristics and sales history have a significant impact on the likelihood of financial statement fraud. An increase in receivables, a surge in sales, and the amount of stock held by management are considered suspicious indicators and should be closely monitored when identifying potential fraud. The research conducted by Shahzadi et al., (2024) shows that the nature of the industry, proxied by accounts receivable, significantly affects financial fraud. Industries with high accounts receivable levels are at greater risk of financial statement manipulation, as management may feel compelled to present favourable accounts receivable performance.

H3: The Nature of Industry positively affects Financial Statement Fraud.

Ineffective Monitoring in driving management to commit Financial Statement Fraud

Ineffective monitoring is part of the opportunity element in the fraud triangle, which can create conditions that facilitate fraud. An effective monitoring system can reduce fraud. Poor supervision reflects a company's lack of robust internal controls, a condition largely influenced by management. Since management is responsible for overseeing various organizational units, appointing a capable supervisor to monitor all company activities is essential to prevent and mitigate fraudulent practices. (Olakunle ACA & Ebenezer, 2021).

In this study, the researcher uses independent commissioners as a proxy to measure the ineffective monitoring variable. Independent commissioners are crucial to ensure

effective company performance control. Independent commissioners are members of the board of commissioners with no direct ties to the issuer or public company, enabling them to perform their supervisory function objectively. Independent commissioners must not have been involved in the planning, managing, or controlling of the company's activities within the past six months. Additionally, they must not hold shares, have affiliations, or maintain direct or indirect business relationships with the company, board members, directors, or significant shareholders (Rachmania, 2017). The research conducted by Shahzadi et al. (2024) shows that ineffective monitoring, proxied by independent commissioners, has a positive relationship, meaning that the more effective the monitoring, the smaller the likelihood of manipulation, and conversely, the less effective the monitoring, the higher the possibility of manipulation.

H4: Ineffective Monitoring has a positive effect on Financial Statement Fraud.

Rationalization in driving management to commit Financial Statement Fraud

Rationalization is a crucial element in fraud that encourages perpetrators to seek justification for their actions. Fraudsters usually look for various ways and rational reasons to justify their actions. According to SAS No. 99, rationalization can be measured from auditor rotation, opinions issued by auditors, and the overall condition of the company. The researcher uses auditor changes as a proxy to measure the rationalization variable in this study. Auditor changes can be a benchmark in detecting fraud because, in general, companies that commit financial statement fraud often indicate that they want to change auditors (Tiffani & Marfuah, 2015).

Auditors provide different types of opinions based on a company's financial condition, one of which is an unqualified opinion with explanatory language. This particular opinion indicates a degree of auditor tolerance toward earnings management, which may lead management to perceive misstatements as acceptable since they are explicitly acknowledged in the audit report (Chimonaki et al., 2023). Studies by Wahyudi & Budiwitjaksono (2017) and Shahzadi et al. (2024) suggest that rationalization, as reflected in auditor changes, plays a role in financial statement fraud. These findings indicate that when individuals or management can justify their actions, the likelihood of engaging in financial statement manipulation increases.

H5: Rationalization has a positive effect on Financial Statement Fraud.

RESEARCH METHOD

The research method employed in this study is the quantitative approach. The quantitative method refers to information represented by numbers that can be quantified numerically. It describes, analyses, and assesses the relationships between variables using statistical techniques. The quantitative method is commonly applied to measure objective phenomena and generate results that can be applied broadly. Population and sample from this study concerned Health Companies listed on the Indonesia Stock Exchange in 2021-2023, which can be accessed through the www.idx.co.id website or the official website of the Healthcare Companies company concerned.

Operational Definition and Variable Measurement

This study employs financial statement fraud as the dependent variable, measured using the Beneish M-Score model to detect potential earnings manipulation (Beneish, 1997). Below are the eight financal ratio index variables used in the Beneish M-Score:

Days Sales Receivable Index (DSRI)	$\frac{Receivables^t/Sales^t}{Receivables^{t-1}/Sales^{t-1}}$
Gross Margin Index (GMI)	$\frac{(Sales^{t-1} - COGS^{t-1})/Sales^{t-1}}{(Sales^t - COGS^t)/Sales^t}$
Asset Quality Index (AQI)	$\frac{1 - \frac{(Current\ Asset^t + Fixed\ Asset^t)}{Total\ Asset^t}}{1 - \frac{(Current\ Asset^{t-1} + Fixed\ Asset^{t-1})}{Total\ Asset^{t-1}}}$
Sales Growth Index (SGI)	$\frac{Sales^t}{Sales^{t-1}}$
Depreciation Index (DEPI)	$\frac{\frac{Depreciation^{t-1}}{(Fixed\ Asset^{t-1} + Depreciation^{t-1})}}{\frac{Depreciation^t}{(Fixed\ Asset^t + Depreciation^t)}}$
Sales, General, and Administrative Expenses Index (SGAI)	$\frac{\frac{Selling,general,and\ Adm\ expense^t}{Sales^t}}{\frac{Selling,general,and\ Adm\ expense^{t-1}}{Sales^{t-1}}}$
Total Accruals to Total Assets (TATA)	$\frac{Gross\ Profit^t - Operating\ cash\ flows^t}{Total\ Aseets^t}$
Leverage Index (LVGI)	$\frac{\frac{Current\ Liabilities^t - Longterm\ Obligation^t}{Total\ Asset^t}}{\frac{Current\ Liabilities^{t-1} - Longterm\ Obligation^{t-}}{Total\ Asset^{t-1}}}$

After calculating the eight rations, they are then incorporated into the Beneish M-Score formula as follows:

$$M - Score = (-4.840) + (0{,}920\ X\ DSRI) + (0{,}528\ X\ GMI) + (0{,}404\ X\ AQI) + (0{,}892\ X\ SGI) + (0{,}115\ X\ DEPI) - (0{,}172\ X\ SGAI) + (4{,}679\ X\ TATA) - (0{,}327\ X\ LVGI)$$

The eight variables in the Beneish M-Score are used to calculate the M-Score, which indicates whether a company is suspected of manipulation. If the M-Score value exceeds -2,22, the company is considered involved in manipulation. Conversely, if the M-Score value is lower than -2,22, the company is not suspected of manipulating (Santosa & Ginting, 2019).

Fraud Risk Factor	Variable	Measurement
Pressure	Financial Stability (AGR)	$AGR = \frac{Total\ Asset^t - Total\ Asset^{t-1}}{Total\ Asset^{t-1}}$
	Financial Target (ROA)	$ROA = \frac{Earnings\ after\ tax^{t-1}}{Total\ Asset^t}$
Opportunity	Nature of Industry (RECEIVABLE)	$RECEIVABLE = \frac{Receivable^t}{Sales^t} - \frac{Receivable^{t-1}}{Sales^{t-1}}$
	Ineffective Monitoring (IND)	$IND = \frac{Number\ of\ independent\ Comissioners}{Total\ Board\ of\ Commissioners}$
Rationalization	Rationalization (AUDCHANGE)	• Code 1 for companies that have changed their auditor. • Code 0 for companies that have not changed their auditor.

Hypothesis testing uses the following model:

$$Log\left[\left(\frac{Fraud}{1-Fraud}\right)\right] = \alpha - \beta 1(\text{AGR}) + \beta 2(\text{ROA}) + \beta 3(\text{RECEIVABLE}) + \beta 4(\text{IND}) + \beta 5(\text{AUDCHANGES}) + \varepsilon$$

Explanation of the variables:

FRAUD	= Dummy variables, where a code of 1 represents a manipulator company and a code of 0 represents a non-manipulator company.
α	= Constant.
$\beta 1 - \beta 7$	= Coefficient of the independent variables.
AGR	= Asset Growth Rate.
ROA	= Return on Asset.
RECEIVABLE	= Account receivable.
IND	= Proportion of independent commissioners.
AUDCHANGES	= Auditor changes.
ε	= Error

RESULT AND DISCUSSION

Descriptive Statistic

	N	Minimum	Maximum	Mean	Std. Deviation
Financial Stability	78	-.87	32.62	.5620	3.69669
Financial Target	78	-3.62	.53	.0305	.43213
Nature of Industry	78	-.31	.48	.0002	.09565
Ineffective Monitoring	78	.29	.75	.4447	.11122
Rationalization	78	0	1	.06	.247
Financial Statement Fraud	78	0	1	.82	.386
Valid N (listwise)	78				

Financial stability proxied by AGR has a minimum value of -0,87 is held by PT Indofarma (Persero) Tbk in 2023. A maximum value of 32,62 is held by PT Multi Medika Internasional Tbk in 2021, with a mean is 0,5620 and a standard deviation of 3,69669. This indicates a relatively high variability in the financial stability of companies within the research sample.

Financial target proxied by ROA has a minimum value of -3,62 is held by PT Indofarma (Persero) Tbk in 2023 and a maximum value is held by PT Hetzer Medical Indonesia Tbk in 2021 with a value of 0,53. The mean value of financial target is 0,0305 and the standard deviation for this variable is 0,43213, suggesting a considerable amount of variability in the data, shows that the distribution of financial target data is uneven, and there are quite high differences between one data and another.

Nature of industry proxied by RECEIVABLE has a minimum value -0,31 is held by PT Itama Ranoraya Tbk in 2021 and a maximum value is held by PT Itama Ranoraya Tbk in 2023 with a value of 0,48. The mean value of nature of industry is 0,0002, and the standard deviation for this variable is 0,9565. The distribution of nature of industry data tends to be even, and the differences between data are not too high. This indicates that most companies in the sample have similar industry characteristics.

Ineffective monitoring proxied by IND has a minimum value of 0,29 is held by PT Kimia Farma (Persero) Tbk in 2023 and a maximum value is held by PT Pyridam Farma Tbk in 2023 with a value of 0,75. The mean value of ineffective monitoring is 0,4447, and the standard deviation for this variable is 0,11122, the distribution of ineffective monitoring data tends to be even, and the differences between data are not too high.

Rationalization proxied by AUDCHANGES has a minimum value of 0, and the maximum value is 1. The standard deviation of 0,247 is higher than the mean of 0,06, suggesting that the distribution of rationalization data is uneven.

Logistic Regression Analysis

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	Financial Stability	.037	.185	.041	1	.840	1.038
	Financial Target	11.424	4.585	6.207	1	.013	91455.739
	Nature of Industry	10.264	4.487	5.232	1	.022	28677.097
	Ineffective Monitoring	2.080	3.187	.426	1	.514	8.008
	Rationalization	-.529	1.256	.177	1	.674	.589
	Constant	.236	1.457	.026	1	.871	1.266

a. Variable(s) entered on step 1: Financial Stability, Financial Target, Nature of Industry, Ineffective Monitoring, Rationalization.

Based on the table logistic regression analysis above, the following equation is obtained:

$$Log\left[\left(\frac{Fraud}{1-Fraud}\right)\right] = 0.236 + 0.037(X1) + 11.424(X2) + 10.264(X3)$$
$$+2.080\ (X4) - 0.529\,(X5) + \varepsilon$$

Hosmer and Lemeshow's Goodness of Fit Test

Step	Chi-square	df	Sig.
1	4.972	8	.761

The Hosmer and Lemeshow test yield a significance value of 0.761, which exceeds 0.05. This result suggests that no substantial disparity exists between the model and the observed data, leading to the acceptance of H0. Consequently, the model demonstrates its capability to predict the observed values accurately, indicating that it is suitable for assessing the impact of the independent variables on the dependent variable.

Overall Model Fit Test

-2 Log Likelihood (Block Number = 0)	73.416
-2 Log Likelihood (Block Number = 1)	57.475

The table shows the -2LogL value in the first block is 73,416 and the -2LogL value in block number = 1 is 57,475. This indicates a decrease of 15,941 from the -2LogL value in block number = 0. The reduction in the -2LogL value suggests a better regression model, and the hypothesis model fits the data.

Classification Matrix

Observed			Predicted: Financial Statement Fraud: Not Indicated Manipulation	Predicted: Financial Statement Fraud: Indicated Manipulation	Percentage Correct
Step 1	Financial Statement Fraud	Not Indicated Manipulation	3	11	21.4
		Indicated Manipulation	3	61	95.3
	Overall Percentage				82.1

a. The cut value is .500

The table above shows that the number of samples that did not commit financial statement fraud is 14 companies. Among them, 3 companies genuinely did not commit financial statement fraud, while 11 companies were expected not to commit fraud but still did. The number of samples that genuinely committed financial statement fraud is 64 companies, where 61 companies actually committed fraud, while 3 companies were expected to commit fraud but did not. Therefore, the overall classification accuracy is 82,1%, the high accuracy in the classification table indicates that there is no significant difference between the predicted data and the observed data. Therefore, it can be concluded that the logistic regression model used has good performance.

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	57.475[a]	.185	.303

a. Estimation terminated at iteration number 7 because parameter estimates changed by less than .001.

As shown in Table 4.16, the Nagelkerke R Square value is 0.303, indicating that the independent variables in this study account for 30.3% of the variation in the dependent variable. The remaining 69.7% is attributed to other factors not examined in this research.

Wald Test (Partial t-test)

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	Financial Stability	.037	.185	.041	1	.840	1.038
	Financial Target	11.424	4.585	6.207	1	.013	91455.739
	Nature of Industry	10.264	4.487	5.232	1	.022	28677.097
	Ineffective Monitoring	2.080	3.187	.426	1	.514	8.008
	Rationalization	-.529	1.256	.177	1	.674	.589
	Constant	.236	1.457	.026	1	.871	1.266

a. Variable(s) entered on step 1: Financial Stability, Financial Target, Nature of Industry, Ineffective Monitoring, Rationalization.

The financial stability variable (AGR) has a beta coefficient of 0.037, which is below 1.9935, and a significance value of 0.840, exceeding the 0.05 threshold. These results lead to the acceptance of H0 and the rejection of H1, indicating that financial stability does not have a significant impact on detecting financial statement fraud, thereby confirming the rejection of H1.

For the financial target variable (ROA), the beta coefficient is 11.424, surpassing 1.9935, with a significance value of 0.013, which is below 0.05. As a result, H0 is rejected, and H1 is accepted, signifying that financial targets significantly influence the detection of financial statement fraud, supporting the acceptance of H2.

The nature of the industry variable (RECEIVABLE) has a beta coefficient of 10.264, exceeding 1.9935, and a significance value of 0.022, which is lower than 0.05. These findings lead to the rejection of H0 and the acceptance of H1, suggesting that the nature of the industry plays a significant role in detecting financial statement fraud, reinforcing the acceptance of H3.

Regarding the ineffective monitoring variable (IND), the beta coefficient is 2.080, which is below 1.9935, while the significance value is 0.514, exceeding 0.05. This outcome results in the acceptance of H0 and the rejection of H1, indicating that ineffective monitoring does not significantly impact financial statement fraud detection, thus leading to the rejection of H4.

Lastly, the rationalization variable (AUDCHANGE) has a beta coefficient of 0.236, which is lower than 1.9935, with a significance value of 0.871, exceeding the 0.05 threshold. Consequently, H0 is accepted, and H1 is rejected, confirming that rationalization does not have a significant effect on detecting financial statement fraud, leading to the rejection of H5.

Omnibus Test of Model Coefficients (Simultaneous F Test)

		Chi-square	df	Sig.
Step 1	Step	15.941	5	0.007
	Block	15.941	5	0.007
	Model	15.941	5	0.007

Referring to the table, the calculated F-value (15.941) exceeds the F-table value (2.3418), while the p-value (0.007) is lower than the 0.05 significance threshold. These results indicate that financial stability, financial target, nature of industry, ineffective monitoring, and rationalization collectively influence financial statement fraud.

The effect of Financial Stability in driving management to commit Financial Statement Fraud

Based on the result of the first hypothesis test, the significance value is 0,840, which is greater than 0,05, with a beta coefficient of 0,037, which is smaller than the ttable value (1,9935). This indicates that financial stability (AGR) does not have a significant effect on financial statement fraud. The results of this study are consistent with the research by Wahyudi; & Budiwitjaksono (2017) and Sabatian & Hutabarat (2020), and fail to support the findings of Darmawan & Saragih (2017).

The reason this variable does not have a significant effect on financial statement fraud. This result indicates that changes in total assets do not directly indicate the occurrence of fraud in a company's financial statements. Although the constants value shows a positive direction, the relationship is not strong enough to prove that a higher percentage change in total assets leads to a higher indication of fraud. A stable continuously growing financial condition does not necessarily indicate misconduct by management but may instead reflect good company performance and attract investors and creditors to provide funding (Wahyudi & Budiwitjaksono, 2017).

The findings of this study contrast with the findings of Darmawan & Saragih (2017), who concluded that financial stability negatively affects fraudulent financial reporting. This discrepancy may stem from differences in research samples, as Darmawan & Saragih, (2017) focused on non-financial companies registered with the Financial Services Authority (FSA)

that had committed financial fraud, whereas this study examines healthcare companies listed on the Indonesia Stock Exchange (IDX). Moreover, variations in findings may also be attributed to differences in the financial statement periods analyzed. While Darmawan & Saragih (2017) used data from 2010–2014, this study covers the period from 2021–2023, which may reflect different economic conditions and regulatory environments.

The effect of Financial Target in driving management to commit Financial Statement Fraud

Based on the result of the second hypothesis test, the significance value is 0,013, which is smaller than 0,05, with a beta coefficient of 11,424, which is greater than the ttable value (1,9935). This indicates that financial target (ROA) has a significant effect on financial statement fraud. The results of this study are consistent with the research by Widarti (2015), Owusu et al. (2022), Doan & Ta (2023), and Shahzadi et al. (2024), and fail to support the findings of Wahyudi; & Budiwitjaksono (2017).

The main reason for the significance of this study's result is that the higher a company's return on assets (ROA), the greater the likelihood of fraudulent financial reporting. This is due to the pressure on management that arises as ROA increases, where companies that meet or even exceed their target attract more attention from investors. This condition can create an incentive for management to maintain or enhance the company's performance image, ultimately driving them to engage in fraudulent practices. In some cases, the pressure to achieve financial targets can escalate into the manipulation of financial statements that do not comply with applicable accounting principles, making the presented financial reports misleading and potentially deceiving stakeholders.

However, this study contradicts the research conducted by Wahyudi; & Budiwitjaksono (2017), which stated that financial targets have no effect on fraudulent financial statements. The differences in the findings of (Wahyudi & Budiwitjaksono, 2017) may be due to differences in the research samples, as their study focused on manufacturing companies, while this study examines healthcare companies.

The effect of Nature of Industry in driving management to commit Financial Statement Fraud

Based on the result of the third hypothesis test, the significance value is 0,022, which is smaller than 0,05, with a beta coefficient of 10,264, which is greater than the ttable value (1,9935). This indicates that nature of industry (RECEVAIBLE) significantly affects financial statement fraud. The results of this study are consistent with the research by Owusu et al. (2022), and Shahzadi et al. (2024), and fail to support the findings of Widarti (2015), Wahyudi; & Budiwitjaksono (2017), Sabatian & Hutabarat (2020).

The nature of the industry, as measured by receivables, affects the likelihood of financial statement fraud. Receivables, assessed based on the volume of accounts receivable and sales, present a higher risk, particularly in industries that rely on significant estimates and judgments. An increase in average receivables compared to the previous year may suggest suboptimal cash flow, potentially limiting liquidity for operational activities. These industry characteristics create opportunities for management to engage in financial statement fraud, as they allow for manipulation of accounting figures through revenue recognition practices or more flexible estimations of receivables.

However, this study contradicts the findings of Widarti (2015), Wahyudi; & Budiwitjaksono (2017), and Sabatian & Hutabarat (2020) due to differences in the research sample and study period.

The effect of Ineffective Monitoring in driving management to commit Financial Statement Fraud

The result of the hypothesis four test, the significance value is 0,514, which is greater than 0,05, with a beta coefficient of 2,080, which is smaller than the ttable value (1,9935). This indicates that ineffective monitoring (IND) does not significantly affect financial statement fraud. This outcome aligns with the research conducted by Widarti (2015) Wahyudi; & Budiwitjaksono (2017) and Sabatian & Hutabarat (2020), and fail to support the findings of Puspitaningrum et al. (2019), Owusu et al. (2022) and Shahzadi et al. (2024).

This indicates that the companies already have effective oversight mechanisms in place through an independent board of commissioners. With the presence of an independent board of commissioners, the company's operational oversight will be conducted objectively and independently, free from interference by any particular parties. However, this statement contradicts the findings of Puspitaningrum et al. (2019), Owusu et al. (2022), and Shahzadi et al. (2024), which show a significant effect of ineffective monitoring. This difference arises due to variations in the research sample and study period.

The effect of Rationalization in driving management to commit Financial Statement Fraud

Based on the result of the hypothesis five test, the significance value is 0,674, which is greater than 0,05, with a beta coefficient of -0,529, which is smaller than the ttable value (1,9935). This indicates that rationalization (AUDCHANGES) does not have a significant effect on financial statement fraud. The results of this study are consistent with the research by Widarti (2015) and (Puspitaningrum et al., 2019), and fail to support the findings of Wahyudi; & Budiwitjaksono, (2017), Sabatian & Hutabarat, (2020), Owusu et al. (2022) and Shahzadi et al. (2024).

The insignificance of auditor changes in relation to financial statement fraud may be due to several factors. One possible reason is that only a small number of health sector companies experienced auditor changes during the research period. Moreover, such a change does not necessarily indicate an effort to rationalize fraudulent behavior, but may occur due to other reasons, such as dissatisfaction with the previous auditor's performance or the company's intention to find an auditor who better fits its business characteristics. Therefore, auditor changes in health sector companies cannot be considered a valid indicator of the rationalization factor in detecting financial statement fraud (A. Rahman & Nurbaiti, 2019).

However, this statement contradicts the findings of Wahyudi; & Budiwitjaksono (2017), Sabatian & Hutabarat (2020), Owusu et al. (2022), and Shahzadi et al. (2024), which shows a significant effect of rationalization. This difference arises due to variations in the research sample and study period.

CONCLUSION, LIMITATION, AND RECOMMENDATION

Conclusion

Based on the analysis of data and hypothesis testing on financial statement fraud detection through the fraud triangle perspective in healthcare companies listed on the Indonesia Stock Exchange from 2021 to 2023, this study concludes that financial stability, measured by the asset growth rate, does not have a significant impact on financial statement fraud. In contrast, financial targets, represented by return on assets (ROA), significantly influence financial statement fraud. Similarly, the nature of the industry, proxied by receivables, also plays a significant role in financial statement fraud. On the other hand, ineffective monitoring, assessed through the presence of independent commissioners, does not show a significant effect on financial statement fraud. Likewise, rationalization, measured

by auditor changes, does not significantly contribute to financial statement fraud in healthcare companies listed on the Indonesia Stock Exchange during the 2021-2023 period.

Limitation

Based on the analysis results and conclusions drawn, this study has several limitations that may influence the research outcomes. First, the Nagelkerke R Square value of 0.303 indicates that only 30.3% of the variation in financial statement fraud can be explained by the five independent variables examined, while the remaining 69.7% is attributed to other factors outside the model. Second, the research period is limited to the years 2021-2023 and focuses solely on the healthcare sector, resulting in a restricted sample size. Expanding the study to include other sectors may yield different findings and provide a broader perspective on financial statement fraud.

Further Research Recommendations

The result of this study can serve as a reference for future research, with the inclusion of a more diverse sample and a broader range of research variables.

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