Hexagon Fraud Analysis Using Beneish Ratio Index Method on Indonesia Healthcare Industry

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ABSTRACT

The rapid growth of the industry requires governance to minimize the risks that may be detrimental to stakeholders due to the lack of security and monitoring that has caused fraudulent activity, especially in the healthcare industry. It has been proven by the identification of cases of fraud in health services, but it needs to be analyzed more deeply to find information that leads to changes in the presentation of financial statements, where this study adopted 7 variables of hexagon fraud on the health industry with calculations using beneish ratio index. The research adopted a quantitative method by obtaining data from the Indonesian Stock Exchange in the period 2016-2021, where there were 72 data of 12 companies that meeting the criteria of 24 companies. The results showed financial stability has an influence on fraudulent financial statements. However, the rest of the variables have no influence on fraudulent financial statements.

Keywords: Healthcare industry; Fraud hexagon; Beneish ratio index; Financial statement fraud

Analisis Hexagon Fraud Menggunakan Metode Beneish Ratio Index pada Industri Kesehatan Indonesia

ABSTRAK

Pesatnya pertumbuhan industri memerlukan tata kelola untuk meminimalkan risiko yang dapat merugikan pemangku kepentingan akibat kurangnya keamanan dan pemantauan yang menyebabkan aktivitas penipuan, khususnya di industri kesehatan. Hal tersebut terbukti dengan teridentifikasinya kasus-kasus penipuan pada pelayanan kesehatan, namun perlu dilakukan analisa lebih mendalam untuk mencari informasi yang mengarah pada perubahan penyajian laporan keuangan, dimana penelitian ini mengadopsi 7 variabel penipuan hexagon pada industri kesehatan. dengan perhitungan menggunakan indeks rasio yang baik. Penelitian ini menggunakan metode kuantitatif dengan memperoleh data dari Bursa Efek Indonesia periode 2016-2021, dimana terdapat 72 data dari 12 perusahaan yang memenuhi kriteria 24 perusahaan. Hasil penelitian menunjukkan stabilitas keuangan mempunyai pengaruh terhadap kecurangan laporan keuangan. Namun variabel selebihnya tidak mempunyai pengaruh terhadap kecurangan laporan keuangan.

Kata Kunci: Industri Kesehatan; Fraud Hexagon; Indeks Rasio Beneish; Financial Statement Fraud

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INTRODUCTION

The industrial world has undergone several dynamic changes that have catalyzed a rapid increase in market demand (Gupta et al., 2020). According to Sorescu (2017) and Kumaraswamy et al. (2018), leaders are required to develop business capacity by updating management governance strategies to maintain uninterrupted company stability. The extent of corporate progress reflects the efficacy of leaders in organizing and managing resources through visionary strategies aimed at achieving set goals (Abatecola & Cristofaro, 2020). A report by Canaday (2020) revealed that 67% of leaders have updated their business management strategies, and 69% believe that operational strategies, updated in accordance with contemporary advancements, accelerate the company's achievement of its objectives. Comprehensive disclosure of information, which spans the strength of business transactions, risk mitigation, and advanced management needs, requires a report that efficiently records all operational activities, benefiting stakeholders, particularly financial report users in decision-making (Kyere & Ausloos, 2021).

Financial statements offer numerous benefits by describing the economic activities of an entity and facilitating predictions of future performance to assist the decision-making process of stakeholders (Friday & Japhet, 2020). In their presentation, these statements must adhere to the Financial Accounting Standards Statements (FAS), such as FAS 1 concerning the presentation of financial reports, FAS 71 concerning financial instruments, among others, to ensure transparency and accountability of accountants in reporting the company's operational performance (Kartikahadi et al., 2019). However, the presentation of financial statements is susceptible to inherent risks, including fraudulent activities such as material misrepresentation, manipulation of financial reports, and asset theft (Rezaee & Wang, 2019).

The European Confederation of Institutes of Internal Audit (ECIIA, 2022) presented the "Risk in Focus 2023" report, which identifies organizational governance and corporate reporting as among the top 10 risks for 2023, faced by internal auditors, accounting for 25% and financial and insolvency risks comprising 28%, respectively. The "Occupational Fraud 2022: A Report to the Nations" by the Association of Certified Fraud Examiners (ACFE, 2022) indicates that the rate of global fraud continues to escalate, with material misstatements accounting for 47%, corruption for 12%, and fraudulent statements for 1%. Additionally, the 2002 Enron scandal led to a significant downturn in the company's financial activities, involving auditors in financial reporting. This incident precipitated the development of regulatory measures such as the Sarbanes-Oxley Act of 2002 (SOX 2002) and frameworks like COSO Internal Control, aimed at ensuring all internal company activities comply with the prevailing rules and codes of ethics (Klamm & Watson, 2009). Furthermore, from an academic theoretical perspective, there was a shift from the fraud triangle to a fraud hexagon to better describe the causes of fraud occurrences (Sari & Nugroho, 2020).





Source: ACFE, 2022

Figure 1. Fraud Index Globally

Through fundamental elements that outline the causes of fraud in the industrial world, researchers like El Diri et al. (2020) provide insight and knowledge for conducting risk mitigation by accurately measuring the problems that occur. Companies are urged to undertake thorough detection processes to uncover hidden information potentially detrimental to the company or other stakeholders (Raguseo, 2018). Georgius L. Vousinas developed the hexagon fraud framework in 2016, which presents six elements aimed at identifying and evaluating the causes of increased crimes (Desviana et al., 2020). The research by Sari & Nugroho (2018) focuses its analysis on fraud in publicly traded corporations in Indonesia, while Desviana et al. (2020) applied the hexagon fraud framework to investigate the causes of fraud in village fund management.

The detection of fraudulent activities in financial statements can utilize the Beneish Ratio Index, initially introduced by Messod Beneish in 1990 and detailed in his 1999 article "The Detection of Earnings Manipulation." Beneish uses several variables such as Day's Sales in Receivable Index (DSRI), Gross Margin Index (GMI), Asset Quality Index (AQI), Depreciation Index (DEPI), Leverage Index (LVGI), Sales General and Administrative Expenses Index (SGAI), Sales Growth Index (SGI), and Total Accruals to Total Asset Index (TATA) to determine if companies have misrepresented their reports. Subsequent studies have adopted the Beneish Ratio Index to identify anomalies in operational activities, such as Wicaksana (2019) in 44 mining companies and Widowati & Oktoriza (2022) in 178 raw material producing companies in Indonesia, both of which detected manipulation of financial data from transaction activities.

In further discussions, it was noted that the actions of perpetrators were not solely a result of the company's low level of security and inadequate management but were also driven by the uncertain changes brought about by the COVID-19 pandemic (Devi et al., 2020). The spread of COVID-19 has led to significant adaptations such as work-from-home arrangements and the termination of employment relationships, thereby increasing financial pressures (Devi et al., 2020). This rising pandemic situation has particularly impacted the healthcare industry, which is crucial for providing and channeling medical resources to the community.



However, activities within the healthcare sector are not immune to risks that may be detrimental to all stakeholders. According to data from Mardiastuti (2017) as reported on DetikNews, Indonesia Corruption Watch (ICW) conducted research and identified more than 49 instances of fraud, ranging from patients and hospitals to drug providers. ICW, along with 14 monitoring organizations, conducted this research across regions including Aceh, North Sumatra, Java Island, NTT, and NTB. Mardiastuti (2017) noted that the study aimed to enhance health assurance services and facilities for all patients. This research utilized the Beneish Ratio Index as a technique to measure the rate of fraud in healthcare companies. Additionally, Madiastuti (2017) revealed that a fraud officer identified by BPJS (Badan Penyelenggara Jaminan Sosial) manipulated patient data and transaction amounts. Through this research, the goal is to contribute further by revealing findings on the presentation of financial statements that can aid stakeholders in making informed decisions related to the performance of the healthcare industry.

According to Fajri (2018), changes in the value of a company's assets can foster financial stability; however, companies with sound economic stability are still susceptible to fraud in the presentation of financial statements. Wicaksana and Suryandari (2019) noted that financial stability influences the occurrence of fraudulent financial reports, perpetrated by various parties.

H₁: Financial Stability has a positive impact on fraudulent financial statements.

Widowarti and Oktoriza (2022) defined external pressure as the pressure experienced by management to meet the expectations of third parties (vendors, suppliers, and other entities), where the company must fulfill its debt obligations by a predetermined date. A company is considered capable of paying its debts if it operates smoothly and profitably. Additionally, management faces pressure in acquiring additional debt and equity to remain competitive. Sagala and Siagian (2021) conducted a study revealing that external pressures positively correlate with fraud in financial reporting.

H₂: External pressure has a positive impact on fraudulent financial statements.

Based on the findings of Lastanti et al. (2022), capability was shown to have no influence on fraudulent financial statements. Similarly, Budiyanto and Puspawati (2022) reported that the element of capacity does not affect fraud in financial reporting. However, these findings contrast with those of Othman and Amer (2022), who asserted that capability does influence fraud in financial reports. According to Handoko and Aurelia (2021), frequent changes in a company's management can create periods of leadership transition and new operational methods, thereby providing opportunities for committing fraud.

H₃: Capability has a positive impact on fraudulent financial statements.

Opportunity is considered one of the significant factors that facilitate the occurrence of fraud affecting the presentation of financial statements (Devi et al., 2020). The weaknesses in a company's control system can allow employees to commit fraud, such as manipulating corporate financial statements (Fadzil et al., 2005). Islam et al. (2018) noted that fraud often occurs due to inadequate internal supervision in a company's operations. Contrarily, Agbanyo and Avortri (2020) found a positive relationship between opportunity and fraud in the presentation of financial statements, whereas Suryandari and Prartama (2021) reported that opportunity does not influence the occurrence of fraud in financial reporting.



H₄: Opportunity has a positive impact on fraudulent financial statements.

Employees often rationalize their actions by justifying them as reciprocation for the performance they have delivered, making rationalization a significant element in committing fraud (Sari & Nugroho, 2020). However, research by Desviana et al. (2020) and Sukmadilaga et al. (2022) found that rationalization has no effect on fraudulent financial statements. Similarly, a study by Apsari & Suhartini (2021) revealed that rationalization does not impact fraud in financial statements.

H₅: Rationalization has a positive impact on fraudulent financial statements.

Individuals in positions of authority may exploit their power for personal economic gain, exceeding the compensation they receive from their jobs, and may thus become involved in fraudulent financial activities (Huynh, 2020). Arrogance manifests when individuals misuse their positions for personal benefit at the expense of others (Sari & Nugroho, 2020). One such action may involve manipulating financial statements to portray the company as generating high profits while concealing excessive costs (Bergstresser & Philippon, 2006). Conversely, research by Aprilia (2017) found that the display of arrogance, as indicated by frequent CEO photographs, does not influence fraud in financial statements.

H₆: Arrogance has a positive impact on fraudulent financial statements.

The following section addresses the presence of collusion within companies, which significantly impacts potential fraud detrimental to stakeholders (Desviana et al., 2020). Research by Sari & Nugroho (2020) indicated that collusion positively affects fraudulent financial statements. In contrast, a study by Sagala & Siagian (2021) reported that collu sion does not positively impact fraud in financial reporting.

H₇: Collusion has a positive impact on fraudulent financial statements.





Source: Research, 2022



RESEARCH METHOD

This research employs an explanatory quantitative methodology that utilizes statistical methods to measure the influence between two or more variables, with data collection incorporating time-series dimensions (Cleff, 2019). The population for the study is derived from the financial reports of companies in the healthcare sector listed on the Indonesian Stock Exchange during the period 2016-2021, with results presented through statistical data processing (refer to Table). Furthermore, to enhance research quality, an analysis is conducted using a systematic literature review, gathering supporting data from both international and national journals and websites that describe the phenomena under investigation (Bowen, 2009).

The sampling method employed in the study is non-probability sampling, specifically purposive sampling, which does not afford equal chances or opportunities to each member of the population to be selected as a sample (Sekaran & Bougie, 2016).

The criteria for selecting companies to be included in the sample are as follows: 1) Companies operating in the Healthcare sector that are listed on the Indonesian Stock Exchange during the period from 2016 to 2021. 2)Companies in the Healthcare sector that have complete data available according to the research variables for the period 2016 to 2021. 3) Companies that have been identified as having engaged in fraudulent financial reporting, as determined by the application of the Beneish Ratio Index method at least once between 2016 and 2021.

Based on these criteria, 24 companies listed on the Indonesian Stock Exchange from 2016 to 2021 were initially identified. However, upon further examination, only 12 companies met all the requirements and were used as the sample for this study, as detailed in the table below:

	· -· -· -· ·· ·· ·· ·· ·· ·· ·· ·· ··	
No	Sample Criteria	Company
1.	Companies operating in the Healthcare sector listed on the	24
	Indonesian Stock Exchange in the period 2016 – 2021.	
2.	Companies in the Healthcare sector that have complete data	0
	according to the research variable for the period 2016 – 2021.	
3.	Companies that identified fraudulent financial reporting by	12
	adopting the Beneish Ratio Index method at least 1x in 2016-2021.	
	Companies that meet the sample criteria	12
	Total Data	72 data

Table 1. Sample Criteria of Research

Source: Research, 2022

Based on further analysis, 72 datasets were used from 12 companies registered on the Indonesian Stock Exchange. The following section will describe the methods of calculation and data analysis based on the research variables employed:

Financial Stability compels companies to consistently represent their financial conditions as stable (Hamdan, 2018). Additionally, Wicaksana (2019) utilized financial stability as a metric to analyze the conditions of mining companies in relation to the management of their assets, focusing on changes resulting from operational activities and acquisitions. The change in total assets (ACHANGE) can be quantified using the following formula:



$$ACHANGE = \frac{(Total Asset_t - Total Asset_{t-1})}{Total Asset_t}$$

External pressure is manifested as pressure from third-party entities questioning whether a company can meet its debt obligations. Urska (2010) identified leverage as a factor that compels companies to manipulate financial reports, beautifying them to secure borrowing opportunities. The measurement of this factor is outlined as follows:

 $Leverage = \frac{Total \ Leverage}{Total \ Asset}$ Capability can reflect an individual's ability to commit fraud. Handoko (2021) noted that frequent changes in company directors necessitate adaptation and can decrease management efficiency in the workplace, thereby facilitating the occurrence of fraud. To measure changes in directorship, a dummy variable is used: a change in directorship is denoted by "1," and the absence of change is denoted by "0."

Fraudulent activity within a company occurs when ongoing governance and supervision are ineffective (ineffective monitoring). Survandari & Pratama (2021) analyzed factors influencing fraud in rural financial management and identified the risk of fraud due to the presence of opportunities arising from minimal supervision and inadequate procedures. This study examines the ratio of independent commissioners to the entire board of commissioners as follows:

 $BDOUT = \frac{Jumlah \ dewan \ komisaris \ independen}{Jumlah \ dewan \ komisaris \ independen}$

jumlah anggota dewan

Companies that frequently change auditors are potentially more likely to engage in fraud, as these changes can help conceal fraudulent activities (El Diri et al., 2020). A pattern of increasing auditor changes may indicate a higher risk of fraud in financial statements. Auditor change (AUDCHANGE) is measured using dummy variables: a code of '1' is assigned if the company changed auditors from the previous year, and a code of '0' if no changes were made.

According to El Diri et al. (2020), the inclusion of numerous self-images or portraits of the board of directors in a company's financial statements may indicate that the directors seek widespread recognition, thus exhibiting arrogance and suggesting a lack of subjection to the company's internal controls. Arrogance is quantified using a dummy variable: a code of '1' is assigned if images of the board of directors are included in the financial report, and a code of '0' if they are not.

Collusion is an act of cooperation between two parties aimed at deceiving third parties or users of financial reports; this activity indicates the presence of systematic fraud that adversely affects the victims, namely the users of the financial reports (Sari & Nugroho, 2020). Collusion is measured using a dummy variable by examining whether, during the reporting period, the company was involved in government projects. A code of '1' is assigned if the company engaged in such projects, and a code of '0' if it did not.

After collecting and processing all the data, the hypothesis testing is conducted using double regression analysis to examine the relationships between the independent variables (X) and the dependent variables (Y). Before proceeding with regression analysis, researchers first test for classical data assumptions. The multi-regression model used in this study is outlined as follows:



M-SCORE = -2.125 - 0.207 ARROGANCE - 0.005 LEVERAGE + 0.074 CAPABILITY - 0.119 BDOUT + 0.028 AUDCHANGE + 0.165 COLLUSION + 0.995 ACHANGE

+ e		(1)
Where:		. ,
M-SCORE	= Fraudulent of Financial Statement	
ARROGANCE	= Frequent Picture CEO	
LEVERAGE	= External Pressure	
CAPABILITY	= Director's Change	
BDOUT	= Ineffective Monitoring	
AUDCHANGE	= Auditor Change	
COLLUSION	= Government Project	
ACHANGE	= Financial Stability	

RESULT AND DISCUSSION

Based on the data collected and analyzed according to the established criteria, a total of 72 datasets from 12 companies were deemed eligible for selection as the study sample. Descriptive statistics were computed to describe the characteristics of all variables used in the research. This involved calculating the mean, standard deviation, minimum, and maximum values.

	Bri	C	Achan	Lever-	Capa-	Bdout	Arro-	Collusion
	DII	C	ge	age	bility	Duout	gance	Contrasion
Mean	-2.193	1.000	0.103	0.338	0.236	0.840	0.597	0.194
Median	-2.218	1.000	0.090	0.310	0.000	0.750	1.000	0.000
Maximum	-0.805	1.000	0.716	0.748	1.000	2.000	1.000	1.000
Minimum	-3.581	1.000	-0.739	0.061	0.000	0.250	0.000	0.000
Std. Dev.	0.589	0.000	0.182	0.182	0.427	0.402	0.493	0.398
Skewness	0.386	NA	-0.839	0.463	1.242	1.276	-0.396	1.544
Kurtosis	3.415	NA	10.083	2.337	2.544	4.753	1.157	3.384
Jarque-Bera	2.306	NA	158.961	3.896	19.155	28.77	12.074	29.053
Probability	0.315	NA	0.000	0.142	0.000	0.000	0.0023	0.000
Course	-	72.00	7 4500	24.205	17 000	(0.402	42 000	14.000
Sum	157.95	72.00	7.4500	24.395	17.000	60.483	43.000	14.000
Sum Sq.								
Dev.	24.710	0.000	2.353	2.368	12.986	11.513	17.319	11.277
Observatio								
observatio	70	70	70	70	70	70	70	70
115	12	12	12	12	12	12	12	12

Table 2. The Result of Descriptive Statistics Test

Source: Research, 2022

The analysis of the data presented in the table, which covers 12 companies in the health sector, includes 72 data points that are further examined to elucidate the findings. The descriptive analysis indicates that the lowest value is attributed to the variable ACHANGE (Financial Stability), registering at -0.739, while the highest value is observed for BDOUT (Ineffective Monitoring) at 2.000. The analysis suggests that the variable ACHANGE reflects a -73.94% level of financial stability within these companies. The revelation that financial stability in the health sector is negative is a significant finding that warrants further investigation.



The determination of the regression model was assessed using panel data, with the selection of regression models conducted through the Common Effect Model, Fixed Effect Models, and Random Effects Models. Subsequent sections present the results of the Chow tests, Hausman tests, and Lagrange Multiplier tests.

Table 3. The Result of Data Panel Test Model

Probability Model	
0.0139 Fixed Effect Model	now
0.6883 Random Effect Model	ausman
0.2767 Common Effect Model	igrange
0.2767 Common Effect	igrange

Source: Research, 2022

Based on table 4 of the autocorrelation test between independent variables.

Table 4. The Result of Autocorrelation

Breusch-Godfrey Serial Correlation LM Test:						
Null Hypothesis: No serial correlation at up to 2 lags						
F-statistic	1.138	Prob. F(2,62)	0.326			
Obs*R-squared	2.550	Prob. Chi-Square (2)	0.279			
0 D 1 0000						

Source: Research, 2022

Based on Table 5, which details the multicollinearity test among independent variables, the results indicate that the values for the independent variables are less than 0.85. Consequently, it can be concluded that there is no multicollinearity present among the independent variables.

Table 5. Multicollinearity Test

	Acha-	Levera-	Capabili-		Audcha-	Arrogan-	Collusi-
	nge	ge	ty	Bdo-ut	nge	ce	on
Achange	1.000	0.081	0.084	-0.196	0.117	-0.104	0.012
Leverage	0.081	1.000	0.121	-0.315	0.295	0.051	0.205
Capability	0.084	0.121	1.000	-0.096	0.036	-0.076	0.057
Bdout	-0.196	-0.315	-0.096	1.000	-0.055	0.136	0.088
Audchange	0.117	0.295	0.036	-0.055	1.000	-0.123	0.083
Arrogance	-0.104	0.051	-0.076	0.136	-0.123	1.000	0.117
Collusion	0.012	0.205	0.057	0.088	0.083	0.117	1.000

Source: Research, 2022

Based on Table 6, which presents the results of the heteroscedasticity test among independent variables as outlined by Sugiyono (2015), the Obs*R-squared probability value is less than 0.05. Therefore, it can be concluded that there is no heteroscedasticity present among the independent variables.

Table 6 The Result of Heteroscedasticity

Heteroskedasticity Test: White					
Null hypothesis: Homoskedasticity					
F-statistic	0.550	Prob. F(31,40)	0.955		
Obs*R-squared	21.536	Prob. Chi-Square(31)	0.897		
Scaled explained SS	25.607	Prob. Chi-Square(31)	0.739		

Source: Research, 2022

The hypothesis was tested using double linear regression with the common effect model as the model chosen in this study. On the Adjusted R Square test result of 0.084 or 8.43%, where it can be seen on the table 7:



Table 7 Hypothesis Test Result						
Hypothesis	Cronbach Alpha (a)	T-statistic	Result			
Financial Stability	0.010	2,624	Accepted			
External Pressure	0.990	-0.012	Rejected			
Capability	0.640	0.468	Rejected			
Opportunity	0.516	-0.652	Rejected			
Rationalization	0.886	0.143	Rejected			
Arrogance	0.144	-1.475	Rejected			
Collusion	0.346	0.947	Rejected			

Table 7 Hypothesis Test Result

Source: Research, 2022

Based on the test results presented in Table 7, the hypothesis evaluation reveals that the Financial Stability variable leads to the rejection of H_0 with a Cronbach's Alpha value of 0.010, which is below the 0.05 threshold (95% confidence level). Additionally, the t-statistic value is 2.624, further supporting the rejection of H_0 . In contrast, the remaining hypotheses tests indicate that H_0 is not rejected.

The analysis of the Financial Stability variable, specifically total asset change (ACHANGE), suggests a positive impact on the prevention of fraud in financial statements among companies in the Healthcare sector. This conclusion is supported by the test result for the asset change value, which is significant at p<0.05 (p=0.0108). While changes in asset values can contribute to financial stability within a company, it is important to note that even companies with robust financial health may still be susceptible to fraudulent financial statements, as noted by Fajri (2018).

The management of assets is under considerable pressure to optimize their use for the sustainability of the corporation, a challenge highlighted by Ahmad (2022). This is corroborated by Wicaksana (2019), who identified frequent manipulations in asset purchase transactions. Similarly, Widowati and Oktoriza (2022) observed such manipulations in the Indonesian raw material manufacturing industry. Addressing data and information manipulation, Huynh (2020) and Kyere and Ausloos (2021) emphasize the critical role of management in ensuring financial stability through optimal resource and asset allocation based on organizational needs. In line with this, Oliveira et al. (2021) argued that effective resource management enhances asset management by better addressing the essential needs of the organization.

Based on the tests conducted on the external pressure hypothesis, it can be concluded that external pressures related to leverage do not influence fraud in the presentation of financial statements. Islam et al. (2018) and Al-Matari et al. (2021) suggest that building a model framework for business risk management can elucidate the significant factors within the company that contribute to the occurrence of anomalies and potentially trigger fraud, emphasizing the importance of managing the entire operational process with adequate procedures.

The findings corroborate the company stewardship theory, which posits that the combination of divided employee responsibilities and leadership will strengthen internal control across all job prospects within the company (Schillemans & Bjurstrøm, 2020). Additionally, the results are supported by Kolbjørnsrud et al. (2017), who found that a decline in company performance is



attributable to leaders who are unable to adapt to changes, resulting in insufficient facilities for human resources that ultimately affect company performance. This underscores the significant role of internal dynamics in influencing company performance. However, these results contrast with the findings of Salaga & Siagian (2012), who reported that external pressure does influence fraudulent financial reporting.

Furthermore, the analysis and hypothesis testing on the data reveal that the capability variable, represented by changes in directorship, has no significant impact on fraud in financial reporting within the healthcare company. Changes in leadership might be implemented to enhance previously ineffective strategies or to align with shifting internal interests within the company (Lionardi & Suhartono, 2022).

According to the analysis, it can be concluded that the opportunity variable has no influence on fraudulent financial statements in healthcare companies. The test involved counting the number of independent commissioners and the total members of the commissioners' council, using ineffective monitoring as a proxy. The findings are consistent with the study by Suryandari & Pratama (2021), which also found that opportunity had no influence on fraud in financial statements. This is further supported by Purnaningsih (2022), who stated that opportunity did not affect financial report fraud.

Furthermore, the results indicate that rationalization, operationalized through the replacement of auditors (AUDCHANGE), has no effect on fraudulent financial reporting in healthcare companies. While Purnaningsih (2022) mentioned that opportunity had no influence on fraudulent financial statements, this contrasts with Suryandari and Pratama (2021), who suggested that opportunity did influence fraudulent financial reporting.

The tests also revealed that the arrogance variable, conceptualized as the depiction of the CEO in the annual report, has no impact on fraudulent financial statements in healthcare companies. This is in line with the findings of Aprilia (2017) and Handoko (2021), who found that the portrayal of the CEO had no effect.

Lastly, based on the analysis of the collusion variable, it can be concluded that this variable does not affect fraudulent financial statements in healthcare companies. This aligns with the research by Sagala & Siagian (2021) and Sari & Nugroho (2020), which found that collusion had no effect on fraud impacting financial statements.

CONCLUSION AND SUGGESTION

The development of the industrial world significantly impacts economic growth and stakeholders' decision-making regarding company performance. However, in striving to achieve their objectives, it is often found that some individuals engage in deliberate fraudulent activities for personal gain, detrimentally affecting various parties. Notably, fraud cases in Indonesia's healthcare industry necessitate precise analysis using the hexagon fraud theory to assess financial statement presentations and inform decision-making. This analysis collected data from 12 companies meeting research criteria, encompassing 72 data points.



According to the research results, several variables were tested for their impact on financial statement fraud: external pressure related to leverage, capability reflected by director changes, opportunity via ineffective monitoring, rationalization through auditor changes, and arrogance expressed through frequent CEO depictions. None of these variables significantly influenced financial statement fraud. However, financial stability positively affected fraudulent activities in financial statements.

This study's findings align with Klamm & Watson (2009), who discussed data manipulation's role in ostensibly stable financial reporting conditions following the introduction of the 2002 Sarbanes-Oxley Act due to the Enron scandal, which initially showed significant progress but ultimately led to a major scandal affecting many investors and stakeholders. Similarly, Marsudi's ICW research (2017) reported 49 fraudulent cases in several Indonesian hospitals, highlighting the need for careful management of financial turnover, where manipulations often involve transaction executions and asset concealments by altering financial statement presentations (Wicaksana, 2019; Widowati & Oktoriza, 2022).

Future research could apply the Beneish Ratio Index method to various industries in Indonesia and incorporate primary data collection (questionnaires or interviews) to directly gather insights from healthcare industry practitioners. This approach aims to understand hospital management's growth and address the risk of fraud affecting transactional and operational activities that influence stakeholders' decision-making. The variables for such a study could be derived from this research, focusing on the Fraud Hexagon, and further explored to identify potential fraud-related divisions of responsibility within hospital settings.

REFERENCES

- Abatecola, G., & Cristofaro, M. (2020). Hambrick and Mason's "Upper Echelons Theory": evolution and open avenues. *Journal of Management History*. https://doi.org/10.1108/JMH-02-2018-0016
- ACFE. (2022). Occupational Fraud 2022: A Report to the nations. Acfe, 1–96.
- Al-Matari, O. M. M., Helal, I. M. A., Mazen, S. A., & Elhennawy, S. (2021). Integrated framework for cybersecurity auditing. *Information Security Journal*. https://doi.org/10.1080/19393555.2020.1834649
- Apsari, A. K., & Suhartini, D. (2021). Religiosity as Moderating of Accounting Student Academic Fraud with a Hexagon Theory Approach. *Accounting and Finance Studies*, 1(3), 212-231.
- Aprilia, A. (2017). Analisis pengaruh fraud pentagon terhadap kecurangan laporan keuangan menggunakan beneish model pada perusahaan yang menerapkan asean corporate governance scorecard. *Jurnal ASET (Akuntansi Riset)*, 9(1), 101-132.

Beneish, M. D. (1999). The detection of earnings manipulation. *Financial Analysts Journal*, 55(5), 24-36.

Bergstresser, D., & Philippon, T. (2006). CEO incentives and earnings management. *Journal of Financial Economics*. https://doi.org/10.1016/j.jfineco.2004.10.011

Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*. https://doi.org/10.3316/QRJ0902027

Canaday, H. (2018). Going digital. Aviation Week and Space Technology, 180(3),



MR025-MR026.

- Cleff, T. (2019). Applied statistics and multivariate data analysis for business and economics: A modern approach using SPSS, Stata, and Excel. In *Springer*.
- Desviana, Basri, Y. M., & Nasrizal. (2020). Analisis Kecurangan pada Pengelolaan Dana Desa dalam Perspektif Fraud Hexagon. *Studi Akuntansi Dan Keuangan Indonesia*, 3(1), 50–73.
- Devi, S., Warasniasih, N. M. S., & Masdiantini, P. R. (2020). The Impact of COVID-19 Pandemic on the Financial Performance of Firms on the Indonesia Stock Exchange. *Journal of Economics, Business, & Accountancy Ventura*. https://doi.org/10.14414/jebav.v23i2.2313
- El Diri, M., Lambrinoudakis, C., & Alhadab, M. (2020). Corporate governance and earnings management in concentrated markets. *Journal of Business Research*. https://doi.org/10.1016/j.jbusres.2019.11.013
- Fadzil, F. H., Haron, H., & Jantan, M. (2005). Internal auditing practices and internal control system. *Managerial Auditing Journal*. https://doi.org/10.1108/02686900510619683
- Friday, I., & Japhet, I. (2020). Information technology and the accountant today: What has really changed? *Journal of Accounting and Taxation*. https://doi.org/10.5897/jat2019.0358
- Gupta, S., Meissonier, R., Drave, V. A., & Roubaud, D. (2020). Examining the impact of Cloud ERP on sustainable performance: A dynamic capability view. *International Journal of Information Management*. https://doi.org/10.1016/j.ijinfomgt.2019.10.013
- Huynh, Q. L. (2020). A triple of corporate governance, social responsibility and earnings management. *Journal of Asian Finance, Economics and Business*. https://doi.org/10.13106/jafeb.2020.vol7.no3.29
- Islam, M. S., Farah, N., & Stafford, T. F. (2018). Factors associated with security/cybersecurity audit by internal audit function: An international study. *Managerial Auditing Journal*. https://doi.org/10.1108/MAJ-07-2017-1595
- Klamm, B. K., & Watson, M. W. (2009). SOX 404 reported internal control weaknesses: A test of COSO framework components and information technology. *Journal of Information Systems*. https://doi.org/10.2308/jis.2009.23.2.1
- Kolbjørnsrud, V., Amico, R., & Thomas, R. J. (2017). Partnering with Al: How organizations can win over skeptical managers. *Strategy and Leadership*. https://doi.org/10.1108/SL-12-2016-0085
- Kumaraswamy, A., Garud, R., & Ansari, S. (Shaz). (2018). Perspectives on Disruptive Innovations. *Journal of Management Studies*. https://doi.org/10.1111/joms.12399
- Kyere, M., & Ausloos, M. (2021). Corporate governance and firms financial performance in the United Kingdom. *International Journal of Finance and Economics*. https://doi.org/10.1002/ijfe.1883
- Mardiastuti, A. (2017, September 14). *ICW Temukan 49 Kecurangan Terkait Jaminan Kesehatan di 15 Provinsi*. Retrieved from DetikNews: https://news.detik.com/berita/d-3643405/icw-temukan-49-kecuranganterkait-jaminan-kesehatan-di-15-provinsi



- Oliveira, M., Sousa, M., Silva, R., & Santos, T. (2021). Strategy and human resources management in non-profit organizations: Its interaction with open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*. https://doi.org/10.3390/joitmc7010075
- Raguseo, E. (2018). Big data technologies: An empirical investigation on their adoption, benefits and risks for companies. *International Journal of Information Management*, 38(1), 187–195. https://doi.org/10.1016/j.ijinfomgt.2017.07.008
- Rezaee, Z., & Wang, J. (2019). Relevance of big data to forensic accounting practice and education. *Managerial Auditing Journal*. https://doi.org/10.1108/MAJ-08-2017-1633
- Sari, S. P., & Nugroho, N. K. (2020). Financial Statements Fraud dengan Pendekatan Vousinas Fraud Hexagon Model: Tinjauan pada Perusahaan Terbuka di Indonesia. 1st Annual Conference of Intifaz, 409–430. http://seminar.uad.ac.id/index.php/ihtifaz/article/download/3641/1023
- Schillemans, T., & Bjurstrøm, K. H. (2020). Trust and verification: balancing agency and stewardship theory in the governance of agencies. *International Public Management Journal*. https://doi.org/10.1080/10967494.2018.1553807
- Sorescu, A. (2017). Data-Driven Business Model Innovation. Journal of Product Innovation Management. https://doi.org/10.1111/jpim.12398
- Sugiyono. (2015). Metode Penelitian Pendidikan. Bandung. In Metode Penelitian Pendidikan (Pendekatan Kuantitatif, Kualitatif, dan R&D).
- Sukmadilaga, C., Winarningsih, S., Handayani, T., Herianti, E., & Ghani, E. K. (2022). Fraudulent Financial Reporting in Ministerial and Governmental Institutions in Indonesia: An Analysis Using Hexagon Theory. *Economies*, 10(4), 86.
- Suryandari, E., & Pratama, L. V. (2021). Determinan fraud dana desa: Pengujian elemen fraud hexagon, Machiavellian, dan love of money. *Reviue Akuntansi* dan Bisnis Indonesia, 5, 55-78.
- Uma Sekaran, & Roger Bougie. (2016). Research Method for Business Textbook (A Skill Building Approa). United States: John Wiley & Sons Inc.
- <u>Vousinas, G.L.</u> (2019), "Advancing theory of fraud: the S.C.O.R.E. model", <u>Journal</u> <u>of Financial Crime</u>, Vol. 26 No. 1, pp. 372-381. <u>https://doi.org/10.1108/JFC-12-2017-0128</u>
- Wicaksana, E. A. (2019). Pendeteksian kecurangan laporan keuangan pada perusahaan pertambangan di bursa efek indonesia. *Jurnal RAK (Riset Akuntansi Keuangan)*, 4(1), 44-59.
- Widowati, A., & Oktoriza, L. (2022). PENDETEKSIAN KECURANGAN LAPORAN KEUANGAN DENGAN BENISH M-SCORE PADA PERUSAHAAN YANG TERDAFTAR DI BURSA EFEK INDONESIA.