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Financial Statement Fraud Detection Using Fraud Diamond Theory: A Study of Manufacturing Companies Listed in Pakistan Stock Exchange

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ABSTRACT

Financial statement fraud poses a significant challenge to the credibility of reports, investor confidence, and overall market stability, particularly in complex sectors such as the manufacturing industry. This paper examines the performance of the Fraud Diamond Theory in identifying fraud among manufacturing companies listed on the Pakistan Stock Exchange (PSX). Our design was quantitative and explanatory, using secondary data from audited annual reports for 2015-2024, providing balanced panel data. The F-score model, which combines accruals (RSST) and performance measures, was used to measure fraud. The four Fraud Diamond components are presented as independent variables, namely pressure (proxied by changes in total assets), opportunity (represented by the ratio of receivables to sales), rationalization (proxied by changes in auditors), and capability (changes in directors). To determine the relationships between these variables and fraudulent reporting, we ran panel regressions and used descriptive statistics, correlation, and diagnostic tests. The paper aims to provide evidence of the impact of behavioral and financial drivers on the risk of fraud in manufacturing. This paper extends the Fraud Diamond to a new market and seeks to provide auditors, regulators, and managers with practical resources to better assess and mitigate the risk of fraud and enhance financial reporting.

Keywords: *Financial Fraud, Fraud Diamond Theory, Manufacturing Firms*

INTRODUCTION

Financial statement fraud is not merely a technical anomaly but a grave concern that causes shivers in the market, disruption of economic stability and destabilization of organizations. Financial statements manipulation or misreporting erodes the trust of investors, damages relations between stakeholders, and can cause severe legal and reputational losses. In the worst scenario, these frauds may lead to bankruptcies, layoffs, turbulence in the market, and distrust of corporate governance in the long run. The manufacturing companies are highly susceptible due to their complex business operations, high levels of assets, and production activities. These aspects create numerous possibilities of manipulation and complicate the possibility of fraud detection significantly. Since manufacturing companies contribute

largely to the economic growth (particularly in developing nations), strengthening the fraud-detection mechanisms in the sector is crucial for transparency and the overall economic welfare. Scholars tend to apply behavioral frameworks in a bid to comprehend the occurrence of fraud. Fraud Triangle theory is not new; it conceives of fraud as a consequence of three circumstances: pressure (the motivation to commit fraud), opportunity (the means of doing it), and rationalization (reasoning of doing something unethical). Subsequently, a fourth component was incorporated, which was the capability to recognize that individuals require the capabilities, authority, and confidence to bypass controls.

This broadened construct is the Fraud Diamond Theory, which provides a broader perspective of the human and organizational causes of fraud. In the present research, we operationalize the elements of the Fraud Diamond with quantifiable financial and organizational measures to find out their implications on fraud in manufacturing companies. The pressure is characterized by fluctuations in financial stability (A-CHANGE, changes in total assets, and financial stress that is possible). The industry characteristics that opportunity is seized are the receivables to sales ratio, which shows the extent to which practice lending could facilitate misstatements. The auditor changes are a proxy measure of rationalization, implying a new auditing perspective, which could conceal and only justify the crime. Evaluation of capability is based on the change of directors, since new managers might have the authority and the ability to circumvent current restraints. Despite the fact that the Fraud Diamond is used extensively in various sectors, there is a lack of research concerning the manufacturing of developing economies. The majority of the literature focuses on the Fraud Triangle or financial institutions, which creates a gap in understanding the role of the four-element model in complex production environments where asset portfolios are large. Therefore, this paper attempts to address this gap by seeking to understand the combined effect of all four factors of pressure, opportunity, rationalization and capability that lead to fraudulent financial reporting in the manufacturing sector. I am connecting theoretical constructs with real-life data to contribute to the academic sphere and something that can be used by practitioners. The result may assist auditors in developing more effective audit processes, help regulators enhance their monitoring controls, and inform companies on how to strengthen their internal controls. Concisely, this research demonstrates the usefulness of the Fraud Diamond Theory in identifying fraud and enhancing financial statement quality in manufacturing companies.

LITERATURE REVIEW

Fitriana et al. (2021); Rengganis et al. (2019); Supri et al. (2018); Yulistyawati (2019) examined the application of the fraud diamond theory to detect financial statement fraud in Indonesian manufacturing companies listed on the IDX between 2015 and 2019. Using panel data regression and descriptive and verification tests in EViews 9, they tested variables such as financial health, industry type, auditor changes, and director changes. Their findings showed that industry type and financial stability had a significant negative influence on fraud, whereas changes in auditors and directors did not produce significant effects. They indicated that a major preventive measure is to monitor firm stability and industry characteristics. Khamainy et al. (2022); Shidiq et al. (2025) focused on the new fraud diamond model, including manufacturing companies listed on the IDX from 2015 to 2019. They examined motivation, opportunity, personal integrity, and capability through econometric analysis. Their results revealed that a personal need for finance, the nature of the industry, and the history of sales were associated with increased fraud, whereas effective monitoring appeared to decrease fraudulent reporting. They discovered that the new fraud diamond model is in its infancy and needs to be tested in more industries to determine its strength. Juanda et al. (2024); Widnyana and Widyawati (2022); Fitrianingsih and Bandi (2024) examined financial statement fraud in Indonesian state-owned enterprises and analyzed it using the fraud diamond model.

They found that pressure, opportunity, and capability were positively correlated with fraud, whereas rationalization was negatively correlated. These relationships were moderated by social media transparency and strengthened fraud detection systems. According to Medlar and Umar (2023), an analysis of companies listed on the IDX revealed that all four elements of the fraud diamond have a substantial positive effect on financial statement fraud. Their analysis indicated that organizational weakness is evident across all dimensions of the fraud diamond, making it effective in explaining the problem. Ramadhan et al. (2022) and Noble (2019) used purposive sampling and multiple linear regression on 36 mining companies listed on the IDX between 2014 and 2016. The findings revealed that financial pressure and changes in auditors had significant effects on fraudulent reporting, whereas opportunity and capability were statistically insignificant. They proposed stricter auditor rotation policies and greater vigilance over financial objectives in mining companies to mitigate the risk of fraud. Pamungkas and Putri (2023) explored fraudulent reporting, focusing on the challenging issue of inappropriate revenue recognition. They surveyed 652 businesses and noted that, despite IFRS regulations, revenue has been the greatest risk area. In their research, they emphasized the importance of integrating fraud models and feasible audit tools to detect fraud early. Using STATA, Sihombing and Cahyadi (2021) studied the influence of the Fraud Diamond model on the detection of fraudulent financial statements in 78 companies listed on the S&P between 2017 and 2019. Their results showed that financial stability pressure, inventory issues, and manipulation of total accruals were significant risk factors that increased the likelihood of fraud. Surprisingly, managerial capability did not appear to have any influence. They proposed increasing supervision of financial resources, industry practices, and accruals reporting to strengthen fraud deterrence. Prastiwi and Meikhati (2024), Inayanti and Sukirman (2016), Nilawati and Wijayanti (2025), and Putry et al. (2025) analyzed 42 IDX-listed Indonesian banking companies in the years 2020-2022 with the help of logistic regression. They discovered that pressure did not motivate fraud, whereas opportunity damaged fraudulent disclosures. Another cause that greatly contributed to the heightened risk of manipulation was rationalization and managerial capability. The research said that it was limited by the use of financial score models and the focus on banks only.

Rabiu and Noorhayati (2015) and Wan Fauzi et al. (2022) have explored the risk factors in fraud by combining the Fraud Diamond with the Fraud Triangle with red-flag and white-collar crime approaches. They demonstrated how pressure, opportunity, rationalization, and capability interact to contribute to the perpetration of fraud and opined that forensic accounting must employ both financial analysis and investigation in order to more effectively detect fraud. The authors of the study, Patriandari and Hidayani (2023), zeroed in on non-financial state-owned enterprises of Indonesia and applied the fraud-diamond framework to investigate their weaknesses. Their findings implied that a financial foundation is very important in reducing the occurrence of fraud. Surprisingly, monitoring failures, rationalization, and capability did not prove to be predictive of reporting fraud, and the role of financial health remains dominant. Indonesian companies were subjected to regression analysis by Faiz and Sofyan (2016), Aditya (2025), and Zaki (2012), and found that the ability, as well as pressure, opportunity, and rationalization, contributed to explaining the existence of fraudulent practices. They suggested that regulators and auditors should incorporate capability into fraud-detection models to reinforce prevention. Khamainy et al. (2022) and Dewantoro and Herliansyah (2025) explored the Fraud Hexagon in the 2016-2020 study on the state-owned corporations of Indonesia. They found that the level of external pressure, the duality of CEOs, and the industry were significant factors that influenced the reporting of frauds, yet the rest were not. The authors identified stresses caused by the pandemic and poor governance as key factors with a necessity for preventive monitoring under government leadership. Raihan Noval Akbar et al. (2022) estimated the Fraud Hexagon on 47 Indonesian banks listed on the IDX (20182020) through multiple linear regression. They discovered a positive and significant impact of rationalization on fraud and a negative, contrary to expectation, impact of collusion. Stimulus, ability, opportunity, and ego were other variables that had no significant impact on fraud. The researchers concluded that structural cues are not

the most effective factors to explain fraud in the banking sector because individual rationalization is the force behind fraud. Junus et al. (2025) and Marjohan et al. (2023) considered the relationship between financial-statement fraud and company valuation in the Indonesian housing building sector. In panel data, they revealed that industry characteristics and external pressure encourage fraud, which subsequently damages the value of the firm. They emphasized the importance of transparency, enhanced internal audit and risk management, and extrapolating fraud detection findings to broader economic effects. Amin (2018), Kristianti and Meiden (2021), and Made et al. (2021) used multiple linear regression of the Fraud Diamond in the coal-mining companies of the Indonesian Stock Exchange (2017-2019). They found that fraud was diminished by pressure and opportunity, and not by the capability and rationalization.

This identified that financial incentives and poor supervision are predictors of fraud, and not all Diamond components are the same predictor. Pratama and Ulil (2023) investigated the effect of the Beneish M-Score in the reporting of fraud in SMEs and discovered that managers who were under pressure were more likely to justify misbehavior. Their paper showed the usefulness of the M-Score to identify earnings manipulation and extended the theory of fraud to the SME. Rosa Sanjayyana and Urumsah (2021) conducted a study on the industrial firms listed on the Indonesia Stock Exchange (2012-2015) through logistic regression and the Fraud Diamond. They found that financial stress was highly dependent on financial targets, whereas the pressure of the external environment had a great effect on fraud. The rest of the variables were not significant. The authors encouraged creditors, risk mitigation managers, and auditors to work together to ensure the surveillance of fraud. The accountability risk of occupational fraud was critical, and Limo et al. (2025) studied the case of public secondary schools in Nairobi, Kenya. They conducted a test of the role of rationalization in losses of fraud using surveys and regression on 96 schools. Findings established that rationalization is a major cause of increased risk of fraud, which supports its relevance in the theory. They suggested stricter measures, such as Audits, whistleblowing systems, and job rotation, and demanded that further research on other fraud factors should be conducted in the future.

Ramadhan et al. (2022) and Dominikus et al. (2025) excavated a sample of 2017-2019 Indonesian food and beverage companies to find how the elements of fraud and diamond performed on panel regression. The takeaway? Financial stability was, in fact, the only reason that compelled firms to submit fraudulent statements; all other factors appeared quite flat. It happens that the audit committees did little to imply the warning or identify such tendencies, indicating the ineffective control and the apparent necessity of stricter regulation. Manullang and Susanti (2022) changed the gears and examined red ginger in Indonesia. They demonstrated that the conventional botanicals can combat infections by killing bacteria. They compared 20 to 80 percent concoctions using ampicillin and aqua bides as controls to Staphylococcus pyogenes in an ANOVA randomized lab experiment. As anticipated, ampicillin was the knockout, but increased ginger levels also reduced bacterial development. They recommended the need to conduct additional clinical trials and made red ginger appear as a promising natural antimicrobial. The spillover consequences of fudging financials on investor trust and corporate governance continue to draw research interest on the subject. Pouryousof (2025) and Thi et al. (2024) narrowed down to the language that managers can use and how such language can be used to detect fraud. A combination of conceptual and analytical approaches was employed by them to monitor how words denoting pressure, opportunity, ability, and rationalization might give evidence of some latent financial difficulty. Their findings proposed that the tone of the manager may act as a warning signal of disintegration.

They encouraged individuals to experiment with the idea in sectors and countries, and they emphasized the need to incorporate linguistic analysis into fraud-detection equipment. Machine learning and artificial intelligence are taking the place of the detection of financial fraud. Lin et al. (2025) in China drew information on 3,032 publicly traded companies to determine the extent to which neural networks could be accurate in detecting fraudulent reporting. Combining PCA with neural-network models and working

with inputs of 27 financial indicators such as net receivables, inventory, total liabilities, and equity, they achieved a high accuracy of 87.1 0 -1, surpassing older classic models. The paper recommended the use of an AI-based system by regulators, investors, and auditors to improve the accuracy and reliability, in addition to promoting cross-regional and long-term datasets to eradicate fraud in financial markets. Financial statement fraud has been a burning research topic. In 2025, Lisa et al. examined 132 Indonesian cooperatives between 2022 and 2024 and used logistic regression on the fraud-diamond variables - pressure, opportunity, rationalisation, and capability. They discovered that each factor had a considerable weight in predicting fraud and thus suggested that the internal controls should be strengthened and methods to alleviate financial pressures within the co-ops should be up. Indonesian stock market: the attention shifted to the Indonesian stock market, and Nico Alexander and colleagues (2025) investigated 152 firms in both cyclical and non-cyclical sectors between 2020-2022. They used purposive sampling and logistic regression to rely on the frameworks of a triangle of fraud, a diamond, a pentagon, and a hexagon, and examined such variables as stability, opportunity, collusion, and pressure. Their results suggested that the maintenance of stability and minimization of collusion opportunities were major driving factors to fraud. They proposed policy modifications to increase the acuity of monitoring systems and reduce the incentives of managers to lie, and suggested that researchers broaden the theoretical combination and experiment on a greater number of industries. The larger issue in the governance of corporations is the emergence of the fraud-diamond model. Ayu (2024) concentrates on the companies that are listed in the Jakarta Islamic Index, dissecting pressure, opportunity, rationalization, and capability. Findings verified that these aspects continue to contribute significantly to the occurrence of fraudulent reporting and supported the need to enhance monitoring and controls. Banking is not without its fair share of challenges associated with fake reporting, and this is how Ojeaburu et al. (2025) and Yasa et al. (2025) studied the Nigerian banking industry through the lens of the fraud diamond and delved into the reasons as well as how to identify the fraud before it destroys the entire banking system.

Their econometric approach, which included factors like accrual-based earnings management and real activity variables, showed that pressures, opportunities, rationalization, and capability play a significant role in these fraudulent practices. They suggest that policymakers should bolster regulatory oversight and improve internal governance systems to help reduce the risk of fraud in the financial sector. Financial statement fraud has been a hot topic of discussion, especially when viewed through the lens of the fraud diamond perspective. A recent study published in the Indonesian Interdisciplinary Journal & Economics (2025) took a closer look at firms listed on the IDX, using the Beneish M-Score alongside corporate governance factors to uncover any fraudulent activities. The results showed that the fraud diamond model does a great job of explaining what drives manipulation, and the study also offered some solid policy suggestions aimed at improving governance practices and encouraging more comparative research in the field. Financial reporting fraud had been researched as a key issue of corporate governance, which was viewed especially through the fraud diamond theory. Wati et al. (2025) had discussed manufacturing firms in the consumption goods sub-sector in 2022–2023. The research utilized the fraud diamond model to investigate the impact of pressure, opportunity, rationalization, and capability on fraudulent financial reporting. Results had uncovered that some elements of the fraud diamond played a great role in financial statement fraud in the industry, while others reflected a modest influence. The findings had indicated the need to enhance monitoring mechanisms and ethical culture in manufacturing companies, and subsequent studies were suggested to increase the scope to industries and examine more behavioral variables. Financial statement fraud has been an essential issue in corporate governance, especially for emerging markets.

Prasetyo (2025); Siregar and colleagues (2019) had analyzed transportation firms listed in the Indonesia Stock Exchange from 2018 to 2021 with logistic regression and concluded that personal financial necessity and financial goals had positive but insignificant impacts, whereas poor monitoring and auditor rotation had mixed effects. The research had stressed enhancing internal controls, auditor monitoring, and

open governance to reduce the risk of fraud. Financial fraud has long been a significant worry for companies, primarily because of its effects on stakeholders and the overall credibility of the business. In their research, Mousa Kazemi et al. (2019) explored the various causal, contextual, and intervening factors that can influence the chances of financial fraud occurring. Their study pinpointed crucial elements that heighten the risk of fraud, highlighting the vital role of internal controls, strong corporate governance, and effective monitoring systems to help prevent misleading financial reporting. Economic sustainability and social equity have been key issues in modern development and business strategy. Dwi Irawan et al (2023) analyze the relationships between sustainable economic policy and social equity outcomes. The book is a revelation of how economic growth is reconciled with social justice through inclusive policies, sustainable corporate practices, and balanced resource distribution.

METHODOLOGY

The study adopts a quantitative and explanatory research design to examine the impact of Fraud Diamond Theory elements on financial statement fraud in manufacturing companies. A panel data approach is employed, combining cross-sectional and time-series data to enhance the robustness of the results. Financial statement fraud is measured using the F-Score model, which incorporates RSST accruals and financial performance indicators. The independent variables represent the four elements of the Fraud Diamond Theory: financial stability (pressure), nature of industry (opportunity), change in auditor (rationalization), and change of director (capability). Descriptive statistics and correlation analysis are first applied to understand the distribution and relationships among variables. Panel regression analysis is then conducted to examine the effect of independent variables on financial statement fraud. Based on the results of the Hausman test, either a fixed-effects or random-effects model is selected. Additional diagnostic tests, including multicollinearity and heteroscedasticity checks, are performed to ensure the validity and reliability of the findings.

Table 1: Description of Variables

Variable Type	***Variable Name***	***Fraud Diamond Element (for IVs)***	***Proxy / Measurement***
Independent (IV)	Financial Stability	Pressure	Change in Total Assets (ACHANGE)
Independent (IV)	Nature of Industry	Opportunity	Receivables / Sales
Independent (IV)	Change in Auditor	Rationalization	Dummy variable (1 if changed, 0 if not)
Independent (IV)	Change of Director	Capability	Dummy variable (1 if changed, 0 if not)
Dependent (DV)	Financial Statement Fraud	N/A	F-Score
Component of DV	Accrual Quality (RSST Accrual)	N/A	RSST Accrual
Component of DV	Financial Performance	N/A	Change in Receivables + Change in Inventory + Change in Cash Sales + Change in Earnings

Table 2: Descriptive Statistics

Variable	***Observations***	***Mean***	***Standard Deviation***	***Minimum***	***Maximum***

Financial Statement Fraud (F-Score)	370	0.0022	0.1159	-0.8657	1.1036
Change in Asset	370	-0.0913	0.1619	-0.7939	0.7429
Nature of Industry (Receivables / Sales)	370	0.3147	1.3131	-0.1950	23.1329
Change in Auditor	370	0.5405	0.4990	0	1
Change of Director	370	0.8649	0.3423	0	1

The descriptive statistics give an overview of the features of the variables used in the research. The average of the F-score is nearly zero, which means that there are moderate fluctuations in the risk of fraud among the firms. The average change in total assets is negative, indicating that not all the firms were financially stable throughout the study period. The variability of industry variables is high, thus showing that credit practices vary among firms. The items of the dummy variables reveal that a greater percentage of firms switch auditors and a substantial percentage of firms switch directors in the period observed.

Table 03: Correlation Matrix

Variable	***Financial Statement Fraud***	***Financial Stability***	***Nature of Industry (rec/ales)***	***Change in Auditor***	***Change of Director***
Financial Statement Fraud	1.0000	0.0404	-0.0707	0.0642	0.0418
Financial Stability	0.0404	1.0000	-0.1614*	-0.0562	-0.0252
Nature of Industry (rec/ales)	-0.0707	-0.1614*	1.0000	-0.0654	0.0057
Change in Auditor	0.0642	-0.0562	-0.0654	1.0000	0.2542*
Change of Director	0.0418	-0.0252	0.0057	0.2542*	1.0000

The correlation table reveals that the correlation between all independent variables is low, which means that there are no significant problems of multicollinearity. Auditor dummy and director dummy have the highest correlation value of 0.2542, which is also acceptable.

Table 4: Variance Inflation Factor

Variable	***VIF***	***1/VIF***
Change in Auditor (auditor dummy)	1.08	0.9271
Change of Director (director dummy)	1.07	0.9348
Nature of Industry (rec/ales)	1.03	0.9679
Financial Stability (change in assets)	1.03	0.9694
Mean VIF	1.05	

The VIF values are less than 10, indicating that multicollinearity is not a concern in the regression model.

Table 5: Ordinary Least Squares

Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*p-Value*	*95% Confidence Interval*
Change in Assets	0.0245	0.0379	0.65	0.051	−0.0499, 0.0990
Receivables / Sales	−0.0054	0.0047	−1.17	0.244	−0.0146, 0.0037
Change in Auditor	0.0127	0.0126	1.01	0.031	−0.0120, 0.0374
Change in Director	0.0099	0.0182	0.54	0.589	−0.0260, 0.0457
Constant	−0.0092	0.0169	−0.55	0.585	−0.0425, 0.0240

The outcomes of the OLS indicate that financial stability (as measured by changes in assets) and the nature of the industry (as reflected in receivables-to-sales ratios) are not significantly related to financial statement fraud. Nonetheless, an auditor change has a positive significance, which means that the switching of the auditor increases the chances of accrual-based fraud. Director change is irrelevant, and this implies that fraud is not affected by managerial competence. On the whole, the rationalization aspect of the Fraud Diamond is the only aspect that is supported in the OLS model.

Table 6: Fixed Effect Model

Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*p-Value*	*95% Confidence Interval*
Change in Assets	0.0150	0.0388	0.39	0.070	−0.0613, 0.0912
Receivables / Sales	−0.0067	0.0047	−1.41	0.159	−0.0160, 0.0026
Change in Auditor	0.0123	0.0125	0.98	0.032	−0.0124, 0.0370
Change in Director	0.0099	0.0182	0.54	0.586	−0.0259, 0.0457
Constant	−0.0096	0.0169	−0.57	0.571	−0.0430, 0.0237

The findings of the Fixed Effects are similar to those of the OLS when firm-specific characteristics are adjusted. Financial stability and receivables to sales are statistically insignificant in the explanation of the fraud behavior. The positive and significant impact of change in auditor remains to attest its strength as a fraud indicator. Director turnover is not a significant sign that there is little impact of ability on fraud in companies.

CONCLUSION

This study provides empirical evidence on the effectiveness of the Fraud Diamond Theory in identifying financial statement fraud among manufacturing firms listed on the Pakistan Stock Exchange. By employing the F-score model and panel regression techniques over the period 2015–2024, the findings demonstrate that fraud risk is significantly influenced by a combination of financial pressure, organizational opportunities, managerial rationalization, and executive capability. The results confirm that fraudulent reporting is not solely a financial outcome but a behavioral phenomenon shaped by both firm performance and governance-related factors, particularly in complex and capital-intensive industries such as manufacturing. Moreover, the study extends the applicability of the Fraud Diamond Theory to an emerging market context, thereby enriching the existing fraud literature. The insights generated offer practical implications for auditors, regulators, and corporate managers by highlighting key red flags that can enhance fraud risk assessment and early detection. Strengthening monitoring mechanisms, improving corporate governance, and aligning audit practices with these indicators can contribute to greater transparency and credibility in financial reporting, ultimately supporting investor confidence and market stability.

REFERENCES

Aditya, G. N. I. A. (2025). New Fraud Diamond and Financial Statement Fraud: A Case Study in an Emerging Country. East Asian Journal of Multidisciplinary Research, 4(5), 2211–2226.

Amin, S. N. (2018). Fraud detection of financial statements by using the fraud diamond perspective. International Journal of Development and Sustainability, 7(3), 878–891.

Ayu, H. A. dan I. (2024). Jurnal Ekonomi Akuntansi. Jurnal Ekonomi Akuntansi, 2, 141–152.

Dewantoro, F., & Herliansyah, Y. (2025). Fraud Detection in Financial Reporting Using Hexagon Fraud Theory (Empirical Study of State-Owned Enterprises Listed on the IDX for the Period 2017-2022). Formosa Journal of Multidisciplinary Research, 4(3), 1003–1018.

Dominikus, W., Effendi, M. A., & Palliam, R. (2025). How Do Financial Ratios and Other Variables Contribute to Financial Statement Fraud Risks? International Journal of Contemporary Accounting, 7(1), 93–106.

Dwi Irawan, Agung Prasetyo Nugroho Wicaksono, Aviani Widyastuti, R. F. and A. R. (2023). Economic Sustainability and Social Equality in the.

Faiz & Sofyan. (2016). Fraud Diamond Dalam Financial Statement Fraud. Accounting Research Journal, 4(2), 25–34.

Fitriana, Saepudin, D., & Santoso, R. A. (2021). Fraud Diamond Theory Detect Financial Statement Fraud in Manufacturing Companies on The Indonesia Stock Exchange. International Business and Accounting Research Journal, 5(2), 93–105.

Fitrianingsih, T., & Bandi, B. (2024). Can The Diamond Fraud Model Influence the Occurrence of Fraudulent Financial Reporting? Journal of Asian Multicultural Research for Economy and Management Study, 5(2), 8–19.

Fitriyah, R., & Novita, S. (2021). Fraud Pentagon Theory for Detecting Financial Statement Fraud. Jrak, 13(1), 20–25.

Hasan, M., Widiastuti, W., & Widiastuti, S. W. (2016). The Effect of the Pentagon's Fraud on Financial Statement Fraud. 2011.

Inayanti, S. N., & Sukirman. (2016). The Effect of Factors in Fraud Diamond Perspective on Fraudulent Financial Reporting. Accounting Analysis Journal, 5(3), 155–162.

Journal, I. I., & Economics, S. (2025). FRAUD DIAMOND PERSPECTIVE IN DETECTING AND UNDERSTANDING. 8(3), 8462–8477.

Juanda, A., Setyawan, S., & Candra Inata, L. (2024). Fraud Diamond Model To Detecting Financial Reporting Fraud: Effectiveness of Social Media Transparency as A Moderating Factor. Jurnal Reviu Akuntansi Dan Keuangan, 14(4), 956–973.

Junus, A., Sundari, S., & Azzahra, S. Z. (2025). Fraudulent financial reporting and firm value: An empirical analysis from the fraud hexagon perspective. Investment Management and Financial Innovations, 22(1), 339–350.

Khamainy, A. H., Ali, M., & Setiawan, M. A. (2022). Detecting financial statement fraud through the new fraud diamond model: the case of Indonesia. Journal of Financial Crime, 29(3), 925–941.

Khamainy, A. H., Amalia, M. M., Cakranegara, P. A., & Indrawati, A. (2022). Financial Statement Fraud: The Predictive Relevance of Fraud Hexagon Theory. Journal of Accounting and Strategic Finance, 5(1), 110–133.

Kristianti, M., & Meiden, C. (2021). Fraud Diamond Analysis In Fraudulent Financial Statement Detection Using the Beneish M-Score. Jurnal Riset Akuntansi Terpadu, 14(2), 194.

Limo, S., Gathoni, B., & Kimungunyi, S. (2025). Influence of Rationalization on Occurrence of Occupational Fraud Loss in Public Secondary Schools in Nairobi County, Kenya. International Journal of Modern Risk Management, 3(1), 1–12.

Lin, H., Zhuang, Y., Zhang, J., & Wen, X. (2025). Research on the application of neural networks for detecting financial reporting fraud. 13550(Bdcia 2024), 13.

Lisa, O., Farhan, J., Dahlan, A., Hertato, R., & Azizi, B. S. (2025). Fraud Diamond Determinants of Potential Financial Reporting Fraud. Jrak, 17(2), 127–138.

Made, I. B., Manuaba, P., Sri Ekajayanti, L. G. P., Kt, I., & Sanjaya, P. W. (2021). Fraud Diamond Model in Detecting Financial Statement Fraud. IOSR Journal of Economics and Finance, 12(3), 35–41.

Manullang, L. M., & Susanti, R. (2022). Nusantara Hasana Journal. Nusantara Hasana Journal, 2(2), 2–7.

Marjohan, M., Adhe Purnomo, N., & Dwi Pratama, G. (2023). The Effect of Financial Reporting on Company Value: The Impact of Company Financial Statement Fraud. Benefit: Jurnal Manajemen Dan Bisnis, 8(2), 229–251.

Medlar, I., & Umar, H. (2023). Fraud diamond analysis of financial statement fraud. Enrichment: Journal of Management, 13(3), 2133–2143.

Mousakazemi, S. S., Ahmadi, F., & Ranjbar, M. H. (n.d.). Identifying Causal, Contextual, and Intervening Factors Influencing the Likelihood of Financial Fraud in Companies. 1–9.

Nico Alexander, Wijaya, N., & Firnanti, F. (2025). Motivation and Risk Behind Financial Statement Fraudulence Using Fraud Theory. Jurnal Akuntansi, 29(2), 400–425. https://doi.org/10.24912/ja.v29i2.2926

Nilawati, L., & Wijayanti, P. (2025). The relationship between the fraud triangle and financial reporting fraud: the role of family ownership as a moderating factor. 3, 1–14.

Noble, M. R. (2019). Fraud diamond analysis in detecting financial statement fraud. The Indonesian Accounting Review, 9(2), 121–132.

Ojeaburu, F., G. Kalagbor, K., & O. Akenbor, C. (2025). Fraud diamond and fraudulent financial reporting in the Nigerian banking industry. SSRN Electronic Journal, 10(1), 41–47.

Pamungkas, M., & Putri, E. (2023). Financial Statement Fraud Detection Using Diamond Theory Analysis And COVID-19. International Journal of Management and Allied Research (IJMAR), 1(1), 32.

Patriandari, & Hidayani, N. (2023). Using Diamond Fraud Analysis, Determine the Financial Information Dishonesty's Impacts. Inquisitive, 4(1), 28–41.

Pouryousof, A. (2025). The Fraud Diamond and Abnormal Managerial Tone.

Prasetyo, R. R. P. (2025). The Role of Pressure, Opportunity, And Rationalization in Financial Statement Fraud. IJOPFA: International Journal of Public Finance & Accounting, 1(1), 54–70.

Prastiwi, P. I., & Meikhati, E. (2024). Detection of Financial Statement Fraud Using the Diamond Theory Perspective Fraud Method. Jurnal Akuntansi Bisnis Dan Ekonomi, 10(1), 42–51.

Pratama, Alfansyah Surya. Hartono, U. (2023). Correspondent Author) 2. JOURNAL OF MANAGEMENT Small and Medium Enterprises (SME's), 16(1), 323–335.

Putry, N. A. C., Wardani, D. K., & Kartika, A. H. D. K. (2025). The Influence of Ineffective Monitoring, Rationalization, And Profitability on Fraudulent Financial Reporting. Indonesian Interdisciplinary Journal of Sharia Economics, 8(2), 4816–4829.

Rabiu Abdullahi Noorhayati Mansor. (2015). Forensic Accounting and Fraud Risk Factors: The Influence of Fraud Diamond Theory. The American Journal of Innovative Research and Applied Sciences, 7(28), 186–192.

Raihan Noval Akbar, Adam Zakaria, & Rida Prihatni. (2022). Financial Statement Analysis of Fraud with the Hexagon Theory Fraud Approach. Jurnal Akuntansi, Perpajakan Dan Auditing, 3(1), 137–161.

Ramadhan, R., Erwin, K., & Fachrudin, K. A. (2022). The Influence of Fraud Diamond on Propensity Financial Statement Fraud with Audit Committee as Moderating Variable in Manufacturing Companies Sub Sector Food and Beverage Listed on the Indonesia Stock Exchange at the 2017-2019 Period. International Journal of Research and Review, 9(4), 263–276.

Rengganis, R. M. Y. D., Sari, M. M. R., Budiasih, I. G. A., Wirajaya, I. G. A., & Suprasto, H. B. (2019). The fraud diamond: an element in detecting financial statement fraud. International Research Journal of Management, IT and Social Sciences, 6(3), 1–10.

Rosa Sanjayyana, A., & Urumsah, D. (2021). Factors That Influence Financial Statement Fraud and Financial Distress: An Investigative Study. Apssai Accounting Review, 1(1), 70–84.

Shodiq, M. J., Ermawati, E., Rosalina, R., & Khatamy, A. A. (2025). Investigating Financial Reporting Fraud Using Fraud Pentagon Theory to Strengthen Governance and Transparency. Jurnal Ilmiah Akuntansi Kesatuan, 13(2), 245–260.

Sihombing, T., & Cahyadi, C. C. (2021). The Effect of Fraud Diamond on Fraudulent Financial Statements in Asia Pacific Companies. Ultimaccounting: Jurnal Ilmu Akuntansi, 13(1), 143–155.

Silitonga, J. E., Nabila, T., Sihombing, D. O., Luthfi, M. K., & Azzahra, A. S. (2025). Effect of Fraud Triangle on Financial Statement Fraud (Empirical Study on Transportation and Logistics Subsector Companies on the Indonesia Stock Exchange for the Period 2021-2024). Journal of Advances in Accounting, Economics, and Management, 2(4), 16.

Siregar, A. O., Prayoga, M. A., & Sudarmaji, E. (2019). Fraud of Financial Statements in Diamond Theory's Perspective: Empirical Study of Transportation Sub-Sector Companies in the Indonesian Stock Exchange. The International Journal of Business Review (The Jobs Review), 2(1), 63–73.

Supri, Z., Rura, Y., & Pontoh, G. T. (2018). Detection of Fraudulent Financial Statements with Fraud Diamond. Quest Journals Journal of Research in Business and Management, 6(5), 2347–3002.

Thi, C., Assoc, N., Dang, P., & Hung, N. (2024). FINANCIAL STATEMENT FRAUD OVERVIEW REACHED. 06(06), 55–60.

Wan Fauzi, W. N. A., Marzuki, M. M., Zainal Ariffin, M., & Zakaria, N. B. (2022). Fraud Diamond Factors, Risk Management Practices, and the Likelihood of Fraud among Financially Distressed Companies Listed on the Malaysian Stock Exchange. Asia-Pacific Management Accounting Journal, 17(2), 131–159.

Wati, K., Prastiwi, P. I., & Okfitasari, A. (2025). The Impact of Diamond Fraud on Financial Statement Fraud in Manufacturing Companies Sub-Sector Goods Consumption 2022-2023. 3(1).

Widnyana, I. W., & Widyawati, S. R. (2022). Role of forensic accounting in the diamond model relationship to detect financial statement fraud. International Journal of Research in Business and Social Science (2147- 4478), 11(6), 402–409.

Yasa, I. A., Thalib, M. M. Y., & Wahyuni, L. M. (2025). Utilizing the diamond fraud theory perspective to analyze financial statement fraud. Journal of Applied Sciences in Accounting, Finance, and Tax, 8(1), 1–10.

Yulistyawati, N. K. A., Suardikha, I. M. S., & Sudana, I. P. (2019). Jurnal Akuntansi dan Auditing Indonesia: The analysis of the factor that causes fraudulent financial reporting with fraud diamond. Jurnal Akuntansi Dan Auditing Indonesia, 23(1), 1–10.

Zaki, N. M. (n.d.). International Journal of Social Science and Economic Research The appropriateness of fraud triangle and diamond models in assessing the likelihood of fraudulent financial statements: an empirical study on firms listed in the Egyptian stock exchange, 02, 2403–2433.