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Influence of Early Detection, Anti-Fraud Strategies, and Authority Levels on Median Loss

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ABSTRACT	INFO ARTIKEL
<p>This research examines the impact of early detection, anti-fraud strategies, and the level of authority of the perpetrator on the median loss due to fraud in the employment sector across the Asia-Pacific region. The study utilizes data from the ACFE report (2024), with a sample of selected cases analyzed through multiple linear regression. The findings indicate that early detection has a significant positive influence on median loss, while anti-fraud strategies exhibit a significant negative effect. Additionally, the authority level of the perpetrator is found to have a significant positive relationship with median loss. These results suggest that improved early detection and more robust anti-fraud measures can help mitigate losses, whereas individuals with higher authority are more likely to cause greater financial damage. The study recommends that organizations in the Asia-Pacific region enhance early detection mechanisms, refine anti-fraud strategies, and strengthen oversight of high-authority personnel to reduce the risk of fraud.</p> <p>© 2025 Kantor Jurnal dan Publikasi UPI</p>	<p>Article History: <i>Submitted/Received 30 May 2025</i> <i>First Revised 10 June 2025</i> <i>Accepted 27 June 2025</i> <i>First Available online 1 August 2025</i> <i>Publication Date 7 August 2025</i></p> <p>Keyword: <i>Anti-Fraud Strategy; Asia-Pacific; Early Detection; Fraud Prevention; Occupational Fraud; and Perpetrator Authority.</i></p>

1. INTRODUCTION

Fraud is a threat to an entity, be it private or government. According to the Report to the nation data made by the Association Certified Fraud Examiner (ACFE, 2024), countries in Asia Pacific are ranked third. The report estimates that organizations globally lose around 5% of their annual revenues due to occupational fraud, with a median loss of USD 145,000 per case, highlighting the serious financial impact of such crimes (ACFE, 2024). This is in line with Nasrudin (2025) showing that rapid economic growth is not always matched by an increase in the supervisory system. Daniels (2024) findings also indicate that the high pressure of competition in the industrial sector can make individuals more vulnerable to fraud. Occupational fraud poses a significant risk to organizations in the Asia-Pacific region, with behavior often influenced by factors of opportunity, pressure, and rationalization as explained in Cressey's Fraud Triangle (1953) (Wulandari et al., 2023). This theory has become a foundational framework in understanding the psychological and environmental triggers of fraudulent behavior in professional settings. Badu (2025) emphasizes that weak internal controls and an unhealthy work environment increase the risk of fraud, while Astuty (2022) shows that strong leadership and organizational commitment can reduce this tendency. Therefore, an ethical culture is important in suppressing fraud and must be supported by a psychologically safe work environment (Mihus & Laptiev, 2025).

In line with the importance of an ethical culture and a psychologically safe work environment in preventing fraud, the role of internal audit becomes crucial as a monitoring mechanism capable of identifying and reducing fraud risks and environmental factors that influence them. Al-Abedi (2023) highlights the essential role of internal auditors in detecting environmental risks that can lead to fraudulent activities through continuous monitoring and assessment. The interaction between the internal control system and employee perceptions becomes crucial in reducing fraud risk. Rae & Subramaniam, (2008) describe that the effectiveness of internal controls can influence the relationship between employees' perceptions of fairness within the organization and their tendency to commit fraud. This indicates that organizations must implement strong internal control mechanisms while ensuring employees perceive these systems as fair and transparent.

Organizational culture also plays a central role in shaping ethical behavior. Suh et al., (2018) state that the enhancement of moral awareness through ethics education aligns with Bandura's social learning theory. However, culture alone is not enough; Bakar et al., (2023) emphasize the importance of strong leadership and clear strategies to effectively manage organizational integrity. Strong internal controls remain the primary foundation in fraud prevention. Nawawi & Salin, (2018) emphasize the importance of consistent monitoring functions, while Agyemang et al., (2022) highlight the need to strengthen internal audit capacity. The design of controls must also be tailored to the size and structure of the organization Brahimi & Elhussein, (2023), where small businesses may require simpler procedures such as task segregation (Davis & Harris, 2020). Understanding the mindset of fraud perpetrators becomes crucial. Studies show that employees often rationalize unethical behavior by exploiting gaps in the control system (Malau et al., in Brahimi & Elhussein, 2023; Yang & Chen, 2023). Thus, fraud prevention needs to be carried out not only structurally but also psychologically.

Furthermore, fraud dynamics are strongly influenced by the perpetrator's authority level, where fraud committed by managers or executives tends to be more complex, has a greater impact, and is more difficult to detect early than fraud by ordinary employees. While early detection, anti-fraud strategies, and perpetrator authority have been separately recognized as key elements, no empirical studies have analyzed their simultaneous interaction in influencing the magnitude of financial losses. This gap is particularly pronounced in the Asia Pacific labor sector - a region with high vulnerability to fraud (ACFE, 2024) whose hierarchical authority dynamics and oversight systems are often unique. Therefore, this study is designed to fill this gap by analyzing the influence of early detection, anti-fraud strategies, and the perpetrator's authority level on the median fraud losses in the region.

FRAUD TRIANGLE

The fraud triangle is a model that explains the conditions leading to fraudulent behavior in organizations, consisting of three elements: pressure, opportunity, and rationalization. Pressure refers to factors like financial strain or unrealistic performance expectations that motivate fraud (Herdjiono & Kabalmay, 2021). Opportunity arises from weak internal controls or oversight, creating openings for fraud (Omukaga, 2020). Rationalization allows individuals to justify their fraudulent actions, making them seem acceptable (Free, 2020)

Research suggests that fraud prevention should address all three factors. Strengthening internal controls can reduce opportunities, while addressing financial pressures and high expectations can mitigate the pressure to commit fraud (Hermawati & Murtanto, 2021). Furthermore, fostering an ethical organizational culture helps reduce rationalization and promote moral behavior (Cheliatsidou et al., 2021). In conclusion, the fraud triangle remains a fundamental framework in understanding fraudulent behavior in organizations. Research consistently reinforces the significance of pressure, opportunity, and rationalization across various contexts, emphasizing that effective fraud prevention must address each of these elements holistically.

OCCUPATIONAL FRAUD

Occupational fraud refers to the misuse of one's occupation for personal gain through the deliberate misuse or theft of an organization's resources. The ACFE categorizes occupational fraud into three main types: asset misappropriation, corruption, and fraudulent financial statements (Shafitri & Kitri, 2024). Among these, asset misappropriation is the most common, often occurring in departments such as procurement and purchasing across various organizational levels (Davis & Harris, 2020).

Numerous studies have explored the personal and organizational factors contributing to occupational fraud, including age, gender, and employee position (Holtfreter, 2005; Christian et al., 2023). Small businesses with weaker internal controls are especially vulnerable, as employees may exploit gaps by collaborating with external actors or overlooking dishonest conduct. Effective prevention strategies include regular audits, robust whistleblowing systems, and fostering a strong ethical culture, with research showing that tips and whistleblower reports are the most frequent methods of fraud detection (Peltier-Rivest & Lanoue, 2015; Rodríguez-Quintero et al., 2021).

Moreover, occupational fraud is not limited to the private sector; public institutions, particularly in procurement processes, also face high risks of financial loss due to fraudulent behavior (Patar et al., 2024). Cultural and psychological factors further complicate fraud dynamics, as national culture can influence both the prevalence and types of fraud (Chung et al., 2021). To address these challenges, recent studies have introduced technology-driven detection methods, such as machine learning and visual analytics, which enable organizations to proactively identify suspicious patterns (Islam et al., 2024). Thus, a combination of strong internal controls, cultural awareness, and technological innovation is essential to combat occupational fraud effectively.

FRAUD INITIALLY DETECTED

Fraud detection has become increasingly important as the complexity of fraudulent activities grows across various sectors, such as finance and banking. Early detection of fraud can significantly reduce potential losses and enhance operational integrity. Various methodologies have been developed to detect fraud, ranging from traditional statistical analyses to advanced machine learning algorithms. Research shows that over 40% of fraud cases are identified through tips from insiders, which is significantly higher than the mere 15% detected through internal audits (Poradová, 2021). This highlights the crucial role of human insight in the detection process, even though formal detection systems also play a vital role in identifying fraud.

In the evolution of fraud detection, the integration of big data analytics has significantly transformed the landscape. By leveraging large transaction datasets, advanced algorithms can adaptively learn and recognize emerging fraudulent behaviors in real-time (Meiryani et al., 2023). This data-driven approach not only improves detection speed but also enhances accuracy through a deeper understanding of suspicious behavioral patterns (Duan et al., 2024). The use of machine learning, both supervised and unsupervised learning, enables systems to identify more complex and novel fraud patterns that may not have been previously classified (Chang et al., 2022). As technology continues to evolve, the ability to detect fraud also advances, leading to more responsive and effective systems in identifying innovative fraud tactics.

H₁ Early detection has a positive effect on Median Loss.

ANTI-FRAUD CONTROLS

In today's corporate landscape, anti-fraud strategies are a critical pillar in mitigating financial fraud, with organizations increasingly adopting a blend of traditional controls and emerging technologies. Risk management frameworks—comprising internal audits, whistleblower systems, and fraud awareness training—have been shown to significantly reduce exposure to occupational fraud (Faisol et al., 2024). Technological advancements such as data mining and machine learning further enhance detection efforts by enabling real-time analysis of vast financial datasets, thus helping identify anomalous patterns indicative of fraud (Kuttiyappan & Rajasekar, 2024).

Recent studies emphasize that hybrid models combining rule-based systems and AI-driven approaches, such as XGBoost and deep learning, provide superior accuracy in detecting complex

fraud schemes (Carcillo et al., 2018). These tools not only improve detection speed but also adapt to evolving fraudulent behaviors, making them essential in high-risk sectors like banking, e-commerce, and healthcare (Mohammad et al., 2024). Thus, an effective anti-fraud strategy requires a multifaceted approach integrating sound managerial practices with scalable technological innovations to build organizational resilience against fraud.

H₂ Anti-Fraud Controls have a negative effect on Median Loss.

PERPETRATOR'S LEVEL OF AUTHORITY ON FRAUD

The level of authority held by individuals significantly influences the occurrence and nature of fraud within organizations. Those in high-authority positions can exploit internal controls, often rationalizing their actions without fear of consequences. Research shows that internal auditors must have sufficient authority to effectively monitor financial operations and enforce controls, thus minimizing fraud opportunities (Kurniawan et al., 2024). High-authority individuals may also display behavioral traits that heighten the risk of fraud, such as job dissatisfaction, which can lead to viewing fraud as a way to overcome perceived injustices (Sandhu, 2020). Additionally, those with power and confidence are more likely to undermine internal controls due to an inflated sense of immunity, making it essential for organizations to maintain strong audit functions (Adekoya et al., 2023).

The organizational structure also plays a key role in fraud prevention. Centralized tax authorities, for example, have been shown to reduce tax and accounting fraud by imposing higher levels of scrutiny and compliance (Miao & Wen, 2024). Effective internal audits, integrated into an organization's governance framework, provide essential oversight, ensuring that fraud risks are properly managed (Kabuye et al., 2017). Furthermore, personal traits, such as higher education, often found in individuals with authority, contribute to a greater capability to commit fraud (Othman & Ameer, 2022). The combination of authority, opportunity, and personal characteristics in the context of the fraud triangle increases the likelihood of fraudulent behavior (Sandhu & Saluja, 2023). Organizations must focus on strengthening internal controls and auditing processes to address these risks effectively.

H₃ Perpetrator Authority Level has a positive effect on Median Loss.

Based on a hypothesis of fraud risk and the research objectives to explain how Early detection, Anti-Fraud Controls, and perpetrator authority level affect the magnitude of financial losses, The conceptual framework can be described.

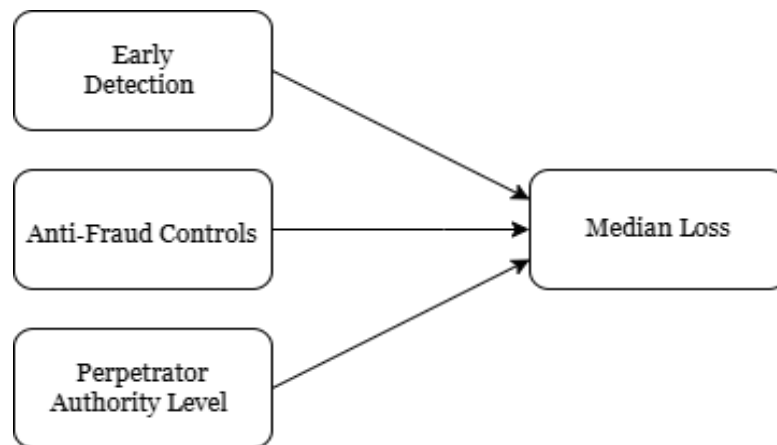


Figure 1. Research Model

2. METHODOLOGY

Research Design

This research uses ex post facto causal research by utilizing fraud data that has occurred in the Asia Pacific region without manipulating variables. This approach allows the research to examine the causal influence between Initial Fraud, Anti Fraud, and Perpetrator Level on Median Loss based on data from ACFE (2024) reports in the Asia Pacific region.

Sampling

This study focuses on occupational fraud cases that occurred in the Asia-Pacific region, with fraud loss (median loss) as the analyzed variable. The research population includes all fraud cases reported in 2023-2024 based on the ACFE (2024) Report to the Nations Asia- Pacific Edition. The sampling technique used was purposive sampling, where the sample was selected based on the relevance and availability of data related to early detection, anti-fraud strategies, and the level of authority of the perpetrator. Data analysis was conducted using multiple linear regression to test the relationship and influence between variables.

Data Collection

The data in this study was collected from secondary sources, namely the ACFE Report to the Nations Asia-Pacific Edition which records various fraud cases that occurred in the Asia- Pacific region. Each case was systematically coded by recording the observed variables, such as the method of early detection, the implementation of anti-fraud strategies, and the level of authority of the perpetrator. In addition, the median loss incurred due to fraud was collected for analysis as an indicator of the financial impact of fraud. The data was then compiled in a structured worksheet to ensure consistency and reliability of the information used in the analysis.

Measures

In this study, there are three independent variables measured:

1. Early Detection Methods A measurement that focuses on how organizations detect fraud at an early stage, such as routine audits, whistleblower reports, and surveillance technology.

2. Anti-Fraud Strategy A measurement related to the policies and procedures implemented by the organization to prevent, detect, and handle fraud.
3. Perpetrator Authority Level Measurements related to the position or level of authority of the fraud perpetrator in the organization, which can affect the occurrence of fraud.

The dependent variables in this study are:

1. Fraud Loss (Median Loss) Measured through financial losses incurred due to fraud detected in the organization. Median loss will be used as an indicator to analyze the impact of fraud on the organization.

Data Analysis

Data analysis occurs during the first stage of precondition testing, which includes normality, multicollinearity, and heteroscedasticity tests. After the data has met these assumptions, multiple linear regression analysis is used to determine the impact of the Initial Fraud, Antifraud, and Perpetrator Level variables on Median Loss. This analysis aims to establish how much and how considerably each variable affects the resulting median loss.

3. RESULT AND DISCUSSION

Data analysis was conducted to examine the influence of Early detection, anti-fraud control, and perpetrator levels on median loss. The results are presented in the following tables:

Table 1. Descriptive Statistic

	N	Minimum	Maximum	Mean	Std. Dev
Early detection	126	13	19	16.88	1.634
Anti-Fraud Control	126	-6369	6768	77.82	3430.945
Perpetrators Level	126	1	3	1.94	.817
Median Loss	126	180000	220000	200357.14	11457.374
Valid N (listwise)	126				

Based on table 1. analysis results show that the average (mean) Early detection is 16.88 with a standard deviation of 1.634. This average value indicates that, in general, organizations have a fairly good ability to detect fraud at an early stage through methods such as internal reporting (tips), management review, and internal audits. The relatively small standard deviation indicates that the variation between cases is not too large, meaning that most organizations have consistent early detection patterns.

The average implementation of Anti-Fraud Control reached 77.82 with a standard deviation of 3.430.945. This value indicates that although in general organizations have implemented anti-fraud controls at a fairly high level such as codes of conduct, anti-fraud training, and complaint hotlines the variation between organizations is significant. This confirms the differences in capacity and commitment to fraud prevention and handling across institutions.

Analysis of the Perpetrator's Level variable yielded an average of 1.94 with a standard deviation of 0.817. The average value, which is close to 2, indicates that fraud tends to be committed by individuals with medium authority, namely those in "Manager" and "Employee"

positions. The standard deviation of 0.817 indicates moderate variation, meaning that although most perpetrators are at the operational or lower managerial level, there are still cases involving perpetrators from the executive level.

The analysis of the Median Loss variable shows an average of \$200,357.14 with a standard deviation of \$11,457.374. This average value reflects that, in general, financial losses due to fraud are at a fairly significant level. However, the relatively small standard deviation compared to the average value indicates that the variation in losses between cases is not too large, meaning that most cases have consistent loss levels.

Table 2. Coefficients

Model	Unstandardized		Standardized		t	Sig.
	Coefficients		Coefficients			
	B	Std. Error	Beta			
(Constant)	149442.667	541.026			276.221	.000
Early detection	1952.568	33.432	.278		58.404	.000
Anti-Fraud Control	-2.000	.015	-.599		-132.055	.000
Perpetrators Level	9355.310	66.834	.667		139.979	.000

Dependen Variable : Median Loss

Based on the results of the multiple regression analysis (Table 2) conducted in this study, Early detection (x1) demonstrated a positive and significant relationship with median loss (y), where each unit delay or weakness in early detection increases the median loss by approximately 1.95 thousand currency units ($\beta = 0.278$; $p < 0.001$). The implementation of anti-fraud controls (x2) emerged as a critical mitigating factor, with each additional control mechanism reducing median loss by around 2 units and exhibiting a strong negative standardized effect ($\beta = -0.599$; $p < 0.001$). Finally, the authority level of perpetrators (x3) exerted the most substantial influence, as each increase in hierarchical level corresponded to an estimated rise of 9.36 thousand in median loss and accounted for the highest standardized coefficient ($\beta = 0.667$; $p < 0.001$). Collectively, these findings suggest that while high-level perpetrators contribute most significantly to financial losses, organizations in the asia-pacific region can effectively mitigate the impact of occupational fraud by enhancing early detection mechanisms and strengthening anti-fraud strategies.

Table 3. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.999 ^a	.997	.997	580.869	2.409

a. Predictors: (Constant), Perpetrators Level, Anti-Fraud Control, Initial Detection

b. Dependent Variable: Median Loss

Based on Table 3, the results of the multiple regression analysis indicate that the coefficient of determination (R^2) is 0.997. This means that 99,7% of the variation in Median Loss can be explained by the independent variables: Initial Fraud, Anti-Fraud, and Perpetrator Level's. The remaining 0,3% is explained by other variables not included in the model.

DISCUSSION

The Influence of Early detection on Median Loss

Early detection is a key element in managing workplace fraud, particularly in the Asia-Pacific region, where 11% of fraud cases reported median losses of \$200,000 based on 183 cases recorded by the ACFE (2024). Regression results indicate the impact of early detection on median losses with an unstandardized coefficient (B) of 1952.568 and a standardized coefficient (Beta) of 0.278, indicating a significant positive relationship. This finding can be linked to rapid economic growth that is often not matched by adequate oversight systems, as noted by Nasrudin, (2025). Research by Meiryani et al., (2023) highlights that big data analytics has enhanced fraud detection capabilities by identifying suspicious behavioral patterns in real-time, which is relevant in the Asia-Pacific region. However, these findings also reveal regional challenges: better early detection can uncover large-scale cases that were previously hidden, potentially increasing financial losses. This is supported by Duan et al., (2024), who emphasize that machine learning algorithms can detect complex fraud schemes but often uncover cases that have been ongoing for a long time.

The Influence of Anti-Fraud Measures on Median Losses

Anti-fraud strategies play a crucial role in mitigating the financial impact of fraud in the Asia-Pacific region, where controls such as external financial statement audits (90%) and codes of ethics (90%) are the most common, according to ACFE (2024). Regression results indicate the impact of anti-fraud measures on median losses with an unstandardized coefficient (B) of -2.000 and a standardized coefficient (Beta) of -0.569, signifying a significant negative relationship. This indicates organizations' commitment to building a preventive framework, aligning with Faisol et al., (2024), who emphasize the importance of internal audits and fraud awareness training. ACFE (2024) also notes that proactive controls such as data monitoring (48%) and surprise audits (43%) are less dominant, which could be a gap in loss mitigation. Research by Kuttiyappan & Rajasekar (2024) shows that technologies such as data mining can improve real-time fraud detection, particularly in high-risk sectors such as banking. Additionally, Mohammad et al., (2024) found that AI-based hybrid models enhance the accuracy of detecting complex schemes.

The Influence of Perpetrator Authority Level on Median Loss

The perpetrator's authority level has a significant impact on the scale of fraud in Asia-Pacific, as reflected in the distribution of cases across countries in the document, with a total of 183 cases involving various levels of authority. Regression results indicate the influence of perpetrator authority level on median loss with an unstandardized coefficient (B) of 9355.310 and a standardized coefficient (Beta) of 0.667, indicating a significant positive relationship. Countries such as China (33 cases) and Indonesia (25 cases) show high concentrations, which may be attributed to the organizational complexity in these regions. Referring to ACFE (2024), which states that perpetrators with high authority tend to cause greater losses, a finding supported by Kurniawan et al., (2024), who emphasize the need for internal auditors to have

authority to monitor senior executives. Sandhu, (2020) adds that job dissatisfaction among high-authority individuals can drive fraud.

Overall, the interaction between early detection, anti-fraud strategies and the level of perpetrator authority creates a unique dynamic in Asia-Pacific, where the median loss of \$200,000 from 183 cases indicates a significant regional challenge. In Cressey's (1953) triangle theory of fraud, which emphasizes opportunity, pressure and rationalization as the main drivers of fraud. This research finds a novel contribution by showing that in Asia-Pacific, opportunities created by suboptimal early detection and high perpetrator authority can amplify pressure and rationalization, especially in hierarchical cultures that inhibit reporting, as identified by (Zhang et al., 2025). This extends Cressey's theory by adding a significant regional cultural context dimension. Comparisons with global research, such as Peltier-Rivest (2025) in Rodríguez-Quintero et al., (2021), suggest that proactive strategies in Asia-Pacific need to be tailored to local challenges.

4. CONCLUSSION

This study aims to analyze the effect of early detection, anti-fraud strategies, and the perpetrator's authority level on the median loss caused by fraud in the employment sector in the Asia-Pacific region. Based on the analysis results, it can be concluded that early detection, anti-fraud strategies, and perpetrator authority levels significantly influence median losses in occupational fraud cases in the Asia-Pacific region. The findings suggest that early detection is positively correlated with median losses, meaning that enhanced detection measures can uncover instances of significant fraud. On the other hand, anti-fraud strategies show a strong negative correlation with median losses, indicating their role in effectively reducing financial losses. Furthermore, the perpetrator's authority level is positively correlated with median losses, suggesting that individuals with higher authority tend to cause more damage. These three variables collectively have a substantial impact on median losses in the Asia-Pacific region. These results contribute to Cressey's (1953) fraud triangle theory by highlighting the influence of hierarchical structures in the Asia-Pacific region, which enhance the opportunities and justifications for fraud, offering new insights into fraud management. Future research should also explore the role of external factors, including regional regulations and organizational culture, to develop a more comprehensive approach to fraud prevention.

5. REFERENCE

- ACFE. (2024). Association of Certified Fraud Examiners The Nations Occupational Fraud 2024 :A Report To The Nations. In *Association of Certified Fraud Examiners*.
- Agyemang, S. K., Ohalehi, P., Mgbame, O. C., & Alo, K. A. (2022). Reducing Occupational Fraud Through Reforms in Public Sector Audit: Evidence From Ghana. *Journal of Financial Crime*, 30(3), 702–715. <https://doi.org/10.1108/jfc-03-2022-0066>
- Al-Abedi, T. K. (2023). Empirical Study for the Strategic Role of Internal Audit in Dedicating Fraud Risk in the Financial Statement: Evidence From Iraq. *Journal of Economics & Administration*, 133, 308–322. <https://doi.org/10.31272/jae.i133.947>
- Astuty, K. (2022). The Effect of Organizational Commitment, Moral Leadership, Work Environment, Religiosity and Love of Money Towards Fraud Intention. *Jurnal Ekonomi Manajemen Akuntansi Dan Keuangan*, 3(1). <https://doi.org/10.53697/emak.v3i1.421>
- Badu, J. K. (2025). *Fraud Risk in Focus . A Qualitative Analysis of Internal Audit Role in Fraud Risk Management in Africa* *Fraud Risk in Focus . A Qualitative Analysis of Internal Audit Role in Fraud Risk Management in Africa*. March. <https://doi.org/10.51137/wrp.ijarbm.2025.jbfa.45660>
- Bakar, M. H. B. A., Kamal, M., & Ishak, M. S. (2023). The Tendency for Occupational Fraud in Malaysian Small Medium Enterprises and the Effect of Internal Control, Ethical Culture and Awareness on Fraud. *International Journal of Academic Research in Business and Social Sciences*, 13(1). <https://doi.org/10.6007/ijarbss/v13-i1/16293>
- Brahimi, S., & Elhussein, M. (2023). Measuring the Effect of Fraud on Data-Quality Dimensions. *Data*, 8(8), 124. <https://doi.org/10.3390/data8080124>
- Daniels, D. R. (2024). Warning signs and red flags: An in-depth look into the impact of industry competitiveness on occupational fraud. In *Ayan* (Vol. 15, Nomor 1).
- Davis, M. V, & Harris, D. (2020). Strategies to Prevent and Detect Occupational Fraud in Small Retail Businesses. *International Journal of Applied Management and Technology*, 19(1). <https://doi.org/10.5590/ijamt.2020.19.1.04>
- Duan, M., Zheng, T., Gao, Y., Wang, G., Feng, Z., & Wang, X. (2024). DGA-GNN: Dynamic Grouping Aggregation GNN for Fraud Detection. *Proceedings of the Aaai Conference on Artificial Intelligence*, 38(10), 11820–11828. <https://doi.org/10.1609/aaai.v38i10.29067>
- Faisol, F., Haryansyah, S. E., Islamy, S. N., & Anas, Z. (2024). Portrait of Risk Management as an Effort to Prevent Corporate Financial Fraud. *Jakpt*, 1(3), 155–163. <https://doi.org/10.59407/jakpt.v1i3.586>
- Kurniawan, A., Haliah, H., & Kusumawati, A. (2024). Internal Control Analysis and Fraud Prevention Efforts in Public Sector Accounting. *East Asian Journal of Multidisciplinary Research*, 3(11). <https://doi.org/10.55927/eajmr.v3i11.11809>

- Kuttiyappan, D., & Rajasekar, V. (2024). *AI-Enhanced Fraud Detection: Novel Approaches and Performance Analysis*. <https://doi.org/10.4108/eai.23-11-2023.2343170>
- Meiryani, M., Sampelino, Y. R., Witjaksono, A., Sihotang, P., Anwar, Y., & Mulyadi, M. S. (2023). The Role of Information Technology in the Practice of Forensic Investigation Analysis for Fraud Disclosure in Indonesia. *E3s Web of Conferences*, 388, 3002. <https://doi.org/10.1051/e3sconf/202338803002>
- Mihus, O., & Laptiev, M. (2025). Inside the Mind of the Modern Fraudster: A Ten-Year Comparative Analysis (2014–2024). *Public Administration and Law Review*, 1(21), 75–86. <https://doi.org/10.36690/2674-5216-2025-1-75-86>
- Mohammad, N., Imran, M. A. U., Prabha, M., Sharmin, S., & Khatoon, R. (2024). Combating Banking Fraud With It: Integrating Machine Learning and Data Analytics. *The American Journal of Management and Economics Innovations*, 6(7), 39–56. <https://doi.org/10.37547/tajmei/volume06issue07-04>
- Nasrudin. (2025). Management Fraud Jasa pada Perusahaan. *The International Corporate Governance System*, 6(1), 326–338. https://doi.org/10.1057/9781137360014_23
- Nawawi, A., & Salin, A. S. A. P. (2018). Internal Control and Employees' Occupational Fraud on Expenditure Claims. *Journal of Financial Crime*, 25(3), 891–906. <https://doi.org/10.1108/jfc-07-2017-0067>
- Rae, K., & Subramaniam, N. (2008). Quality of Internal Control Procedures. *Managerial Auditing Journal*, 23(2), 104–124. <https://doi.org/10.1108/02686900810839820>
- Rodríguez-Quintero, J.-F., Sánchez-Díaz, A., Iriarte-Navarro, L., Maté, A., Such, M. M., & Trujillo, J. (2021). Fraud Audit Based on Visual Analysis: A Process Mining Approach. *Applied Sciences*, 11(11), 4751. <https://doi.org/10.3390/app11114751>
- Sandhu, N. (2020). Behavioural Red Flags of Fraud: An Ex Post Assessment of Types and Frequencies. *Global Business Review*, 21(2), 507–525. <https://doi.org/10.1177/0972150919850410> 46–55
- Suh, J. B., Shim, H. S., & Button, M. (2018). Exploring the Impact of Organizational Investment on Occupational Fraud: Mediating Effects of Ethical Culture and Monitoring Control. *International Journal of Law Crime and Justice*, 53, 46–55. <https://doi.org/10.1016/j.ijlcrj.2018.02.003>
- Wulandari, Prasita, P., & Syahputri, D. C. (2023). Fraud Triangle Theory Dan Perannya Terhadap Pendeteksian Dan Pencegahan Korupsi Di Sektor Publik Pemerintahan Indonesia. *Abdi Equator*, 3(2), 91–108.
- Yang, M., & Chen, Y. (2023). Cognitive Rationalization in Occupational Fraud: Structure Exploration and Scale Development. *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1112127>