ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/26may014

Moderating Effect of Whistle-Blowing Policy on Digital Forensic Accounting dynamics and Fraud Detection by Anti-Corruption Agencies in Nigeria

Igbochi Friday Idoko[1]; Emmanuel Eneche Onoja[2]

[1]Department of Accounting, Faculty of Management Sciences, Federal University Lokoja
[2]PhD, Department of Accounting, Faculty of Management Sciences, Federal University Lokoja

Publication Date: 2026/05/20

Abstract: This study examines moderating effect of whistle blowing policy on Digital forensic accounting dynamics and fraud detection by anti-corruption agencies in Nigeria. The study employed a quantitative research design, gathering data from 175 respondents working within Nigerian anti-corruption agencies through structured questionnaires. Statistical analysis, including regression models and conditional effects, was used to assess the relationships between the forensic tools, whistleblowing policies, and fraud detection. The findings revealed that all four forensic accounting techniques had a significant positive effect on fraud detection, with CAATs, DMT, AA, and NAT each playing a crucial role in identifying fraudulent activities. Additionally, whistleblowing policies were found to significantly enhance the effectiveness of these tools by encouraging individuals to report fraud, thus improving the overall fraud detection process. Based on these findings, the study recommends that anti-corruption agencies integrate advanced forensic tools into their operations, strengthen whistleblowing policies, provide continuous training for staff, and collaborate with technology experts. These actions will help improve fraud detection and enhance the agencies' capacity to combat corruption effectively in Nigeria.

Keywords: *Digital Forensic Accounting, Whistleblowing Policies, Anti-Corruption Agencies.*

How to Cite: Igbochi Friday Idoko; Emmanuel Eneche Onoja (2026) Moderating Effect of Whistle-Blowing Policy on Digital Forensic Accounting dynamics and Fraud Detection by Anti-Corruption Agencies in Nigeria. *International Journal of Innovative Science and Research Technology*, 11(5), 728-735. https://doi.org/10.38124/ijisrt/26may014

I. INTRODUCTION

Fraud remains a global challenge, affecting both public and private institutions. Governments and corporations worldwide have turned to digital forensic accounting (DFA) as a crucial tool for fraud detection and financial crime prevention. Digital forensic accounting involves the use of technology-driven methods such as computer-assisted audit techniques (CAATs), data mining, network analysis, and advanced analytics to investigate financial irregularities (Bhasin, 2017).

Forensic accounting integrates accounting, investigative skills, and information technology to detect and prevent fraud (Crumbley et al., 2017). Digital forensic tools have significantly improved fraud detection, particularly in corporate and governmental institutions.

A well-structured whistleblowing policy provides mechanisms for employees and external stakeholders to report fraud securely and confidentially. Studies have shown that organizations with strong whistleblowing frameworks detect and resolve fraud cases faster than those without such policies (Kaplan et al., 2020).

Nigeria faces significant fraud and corruption challenges, particularly in the public sector. The Economic and Financial Crimes Commission (EFCC) and Independent Corrupt Practices Commission (ICPC) are the primary anti-corruption agencies responsible for detecting and prosecuting financial crimes in Nigeria. The EFCC and ICPC have increasingly adopted digital forensic accounting techniques to enhance fraud detection. A study by Okoye and Gbegi (2020) found that forensic accounting tools improved fraud detection rates by over 60% in Nigerian anti-corruption agencies.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/26may014

Nigeria's whistleblowing framework has gained prominence with the introduction of the Whistleblower Protection Policy (WPP) in 2016. This policy allows individuals to report fraud and corruption in exchange for financial rewards (Olowokure & Owojori, 2021). Since its inception, the WPP has helped Nigeria recover over $700 million in stolen public funds (Ministry of Finance, 2022). However, challenges such as fear of victimization, lack of legal backing, and slow enforcement hinder its full effectiveness (Adegoke, 2023).

Advanced analytics refers to the use of artificial intelligence (AI), machine learning (ML), and predictive modeling to analyze large datasets and detect financial fraud (Misangyi et al., 2021). Misangyi et al. (2021) found that organizations integrating advanced analytics into their compliance frameworks reported a 30% reduction in financial fraud cases. Drorb & Kukuckaa (2023) highlight that AI-driven fraud detection systems are particularly effective when supported by regulatory enforcement.

Network analysis is a forensic method used to detect relationships between individuals, entities, and transactions involved in fraudulent activities (Kendall, 2020). Strutin (2019) found that network analysis is highly effective in identifying large-scale corruption networks. Ahmed & Ahmed (2022) report that forensic investigations using network analysis techniques have led to higher conviction rates in financial crime cases.

A growing body of literature exists on the role of forensic accounting in enhancing fraud detection, but the bulk of these studies have focused on corporate entities and financial institutions. For instance, Onuora and Ugbede (2022) investigated forensic accounting tools in the banking sector and found that data mining and analytics had a significant impact on fraud reduction. However, there is limited empirical evidence specifically targeting anti-corruption agencies such as the EFCC and ICPC, which operate under distinct institutional and legal frameworks. This creates an evidence gap regarding how these techniques function in the public anti-corruption domain.

In light of these multiple gaps, the current study seeks to address a critical void in both academic literature and policy practice by examining the moderating effect of whistle-blowing policy on the relationship between digital forensic accounting techniques and fraud detection by anti-corruption agencies in Nigeria. Without addressing the interdependence of these variables and the moderating role played by institutional mechanisms, efforts to reform public sector accountability and reduce corruption may remain ineffective. The study will employ robust statistical models, appropriate theoretical frameworks, and nationally representative data to provide insights that are both practically relevant and academically significant.

The main objective of the study is the Moderating Effect of whistle-blowing policy on the Relationship between Digital Forensic Accounting Techniques and fraud prevention in Nigeria MDAs.

The following hypothesis was formulated in a null form for test.

- H_{O1}: There is no significant effect of Computer-Assisted Audit Techniques (CAATs) on fraud detection by anti-corruption agencies in Nigeria.
- H_{O2}: There is no significant effect of data mining techniques on fraud detection by anti-corruption agencies in Nigeria.
- H_{O3}: There is no significant effect of advanced analytics on fraud detection by anti-corruption agencies in Nigeria.

II. LITERATURE REVIEW

A. Conceptual Framework

The digital forensic accounting techniques are expected to have a direct influence on fraud detection effectiveness among anti-corruption agencies. As these agencies apply tools like data analytics, audit software, and electronic evidence tracking, they can better uncover hidden patterns of fraud (Ekechi & Edeh, 2023). The whistle-blowing policy acts as a moderator that can either strengthen or weaken the relationship. A robust whistle-blowing policy can provide firsthand tips and documentary evidence that enhance digital forensic investigations. In contrast, weak policies or lack of anonymity may reduce whistle-blower participation, thus limiting the effectiveness of digital tools (Ogwueleka & James, 2021). The conceptual framework draws from the Fraud Triangle Theory (Cressey, 1953), Agency Theory (Jensen & Meckling, 1976), and the Theory of Planned Behavior (Ajzen, 1991) to underpin the behavioral and technological interplay between detection systems and whistle-blower engagement.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/26may014

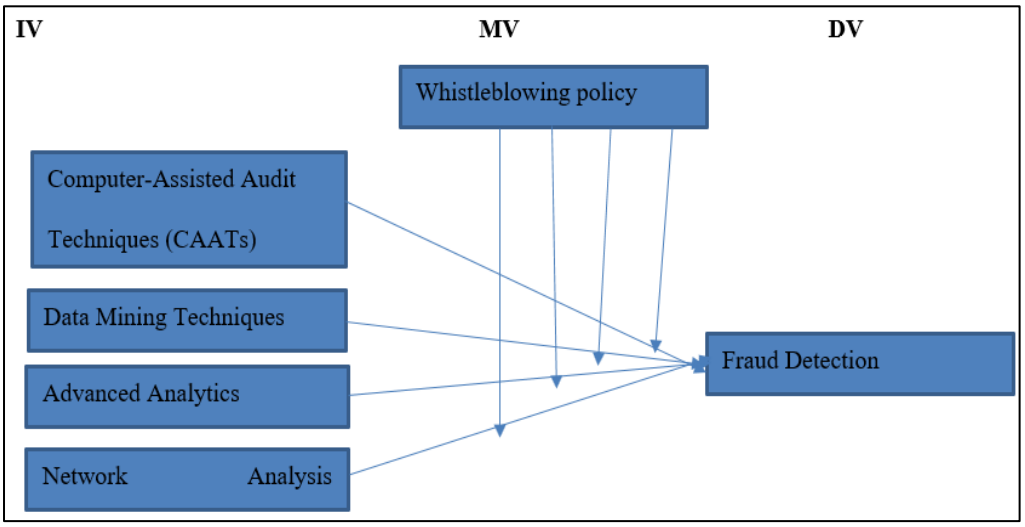

Fig 1: Conceptual Framework

➢ *Fraud Detection*

Fraud detection, as the dependent variable in this study, refers to the systematic processes, institutional mechanisms, and analytical tools deployed to proactively uncover, investigate, and deter financial and non-financial misconduct within organizations. It encompasses both traditional manual audit procedures and emerging technological innovations, including digital forensic techniques, artificial intelligence, and whistle-blower systems. In public sector institutions, fraud detection plays a pivotal role in ensuring accountability, protecting public resources, and sustaining public trust.

Yet, these theories have limitations in modern contexts. They assume rational actors and underestimate institutional and systemic enablers of fraud, especially in public sectors marked by corruption, weak controls, and bureaucratic opacity (Transparency International, 2023). Thus, more holistic and dynamic frameworks are required ones that accommodate both behavioral and technological dimensions.

For this study, fraud detection is operationalized as the effectiveness with which anti-corruption agencies in Nigeria identify, investigate, and resolve fraud cases using digital forensic tools, moderated by whistle-blowing policies. This conceptualization is built around four measurable dimensions Despite its strengths, much of the existing literature on fraud detection remains overly descriptive or technology-centric, lacking critical engagement with implementation challenges, especially in developing contexts.

This study conceptualizes fraud detection as a governance mechanism shaped by the interplay of digital forensic tools and whistle-blowing policies, moderated by institutional capabilities. Unlike prior studies that view detection as an end goal, this research adopts a systems-thinking perspective where detection is both a technical process and a political act, influenced by transparency norms, legal structures, and stakeholder engagement.

This broader lens is necessary in Nigeria, where anti-corruption is both urgent and politically sensitive. The study aims to fill the gap in empirical literature by evaluating how whistle-blower integration enhances or moderates the performance of digital forensic accounting systems in uncovering and resolving financial crimes.

➢ *Digital Forensic Accounting Techniques*

According to Elmore (2016)**,** digital forensic accounting involves "the application of accounting, auditing, and investigative skills in a digital environment to examine financial data and identify fraud and corruption for legal use." This integrated approach enables investigators to uncover hidden financial manipulations, trace digital footprints, and reconstruct transaction flows using specialized software and digital audit tools.

With the emergence of the Fourth Industrial Revolution**,** data integrity and electronic transaction security have become top priorities in financial governance. Consequently, the relevance of digital forensic accounting techniques has intensified, particularly in environments plagued by complex fraud such as Nigeria's public sector. In recent years, government agencies such as the Economic and Financial Crimes Commission (EFCC) and the Independent Corrupt Practices and Other Related Offences Commission (ICPC) have adopted digital forensic tools to enhance fraud detection in cases involving e-payment fraud, cyber-enabled procurement abuse, and digital asset concealment (ICPC, 2023; FIRS, 2023). This shift toward forensic technology in Nigeria is not merely procedural it is strategic. It aligns with global best practices in financial crime detection and positions public institutions to respond more efficiently to the growing sophistication of corruption and fraud schemes in digital finance ecosystems.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/26may014

➢ *Whistle-Blowing Policy*

Whistle-blowing policy refers to the structured organizational or governmental framework that enables individuals to report unethical, fraudulent, or illegal activities while ensuring protection from retaliation. According to Near and Miceli (2015), whistle-blowing involves "the disclosure by organizational members (former or current) of illegal, immoral, or illegitimate practices under the control of their employers to persons or organizations that may be able to effect action." This definition captures the internal nature of the whistle-blower and the intention to stimulate institutional correction.

Agency Theory provides the theoretical underpinning for whistle-blowing: it acts as a control mechanism to reduce information asymmetry between the principal (public or shareholders) and the agent (public officers). In theory, whistle-blowing aligns the agent's behavior with the principal's interests by creating accountability.

However, this theory: Oversimplifies motivation, treating whistle-blowers as utility-maximizing agents rather than ethical actors subject to fear, loyalty conflict, or moral dilemmas. Does not account for organizational culture, power dynamics, or emotional trauma factors that critically shape whether individuals blow the whistle. Assumes the principal (the state) has the will and resources to act which is not always true in contexts like Nigeria, where anti-corruption agencies may themselves be politicized or underfunded.

This study fills that gap by positioning whistle-blowing not as an isolated input, but as a moderator that can amplify or constrain the effectiveness of forensic techniques. By accounting for legal, institutional, and behavioral variables, the study offers a more realistic and comprehensive understanding of how whistle-blowing operates in Nigeria's public sector.

➢ *Computer-Assisted Audit Techniques (CAATs)*

Computer-Assisted Audit Techniques (CAATs) are automated audit tools and software applications designed to aid auditors and forensic accountants in the examination of large volumes of data with speed, precision, and consistency. These techniques involve the use of programmable software that can perform audit functions such as data extraction, filtering, analysis, validation, and reporting from electronic accounting systems. Common CAATs include Audit Command Language (ACL), Interactive Data Extraction and Analysis (IDEA), Arbutus Analyzer, and Microsoft Excel add-ins for data analytics.

➢ *Data Mining Techniques*

Data mining refers to the systematic process of extracting meaningful patterns, trends, and relationships from large datasets using advanced analytical and computational methods. It is a cornerstone of modern digital forensic accounting and is particularly instrumental in detecting fraudulent behaviors that may otherwise remain hidden in voluminous financial records. As defined by Pei (2012), data mining is "the analysis of data to uncover previously unknown patterns and relationships that can be used for decision-making and prediction." In the context of forensic auditing, data mining facilitates the identification of outliers, repetitive transactions, and unusual relationships across different accounting systems, business units, or vendor accounts.

According to Tuttle (2015), data mining transforms traditional audit practices into intelligent systems capable of continuous monitoring and real-time detection. This significantly improves the auditor's ability to uncover concealed fraud patterns, especially in environments with high transaction volumes.

B. Empirical Reviews

➢ *Computer-Assisted Audit Techniques (CAATs) on fraud detection*

Okafor & Eze (2025) examine the Role of Computer-Assisted Audit Techniques in Detecting Fraud in Nigerian Public Sector" This study employed a quantitative research design, utilizing survey data gathered from staff members of Nigeria's anti-corruption agencies, including the Economic and Financial Crimes Commission (EFCC) and the Independent Corrupt Practices Commission (ICPC). The study revealed that Computer-Assisted Audit Techniques (CAATs), particularly data mining tools, significantly improved fraud detection in the Nigerian public sector. However, the study also noted that staff members lacked sufficient training on the usage of CAATs. The authors recommended enhancing training programs for anti-corruption agency staff to improve their proficiency in using CAATs for fraud detection. One critical gap identified in the study was the lack of comparative research on the effectiveness of CAATs across different regions of Nigeria. Future research could focus on cross-regional comparisons of CAATs implementation and explore the unique challenges faced by anti-corruption agencies in both urban and rural contexts.

Udo & Bassey (2025) examines the effect of Computer-Assisted Audit Techniques and Fraud Detection in Nigeria: A Study of the ICPC" This qualitative study used interviews with investigators at the ICPC to gather insights into the agency's use of CAATs in fraud detection. While the study found that CAATs were helpful in identifying fraudulent activities, their usage was hindered by insufficient training and inadequate technical support. The authors recommended intensive training programs and improved technical infrastructure to ensure that CAATs are effectively utilized. The study was limited to ICPC, and there was no comparison with other agencies such as the EFCC. A comparative study that involves multiple anti-corruption agencies would provide a broader understanding of the challenges and successes of CAATs usage across the Nigerian public sector.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/26may014

Nwachukwu & Ogun (2025) evaluate the Application of CAATs in Detecting Corruption in Nigerian Public Administration. This descriptive study relied on interviews with EFCC officials and analysis of their reports on corruption cases investigated using CAATs. The study found that CAATs helped uncover significant fraud; however, resistance to technology within Nigerian public administration hindered full-scale implementation of CAATs. The authors called for policy reforms to incentivize the adoption of CAATs across public institutions. The study did not explore the socio-political factors influencing the adoption of CAATs. Further studies should investigate the political and governance factors that influence the adoption of new technologies in Nigerian public sector agencies.

➢ *Data Mining and Fraud Detection*

Nasir and Adebayo (2023) investigated how data mining supports the Federal Inland Revenue Service (FIRS) in addressing tax fraud. Their study utilized predictive algorithms to analyze taxpayer behavior, ultimately identifying patterns of under-declared Value Added Tax (VAT) and personal income tax. The flagged irregularities were then used to optimize audit selection and compliance enforcement. Their work demonstrates the relevance of predictive modeling in enhancing revenue assurance and fraud prevention mechanisms.

➢ *Forensic Accounting Tools and Fraud Detection in Nigeria*

In the study titled "The Integration of Whistle-Blower Mechanisms with Forensic Tools for Enhanced Anti-Corruption Outcomes in Nigeria, Musa (2022) employed a case study design to explore the effect of combining whistle-blower disclosures with forensic tools at the ICPC.

C. Theoretical Review

Institutional Theory (Scott, 2004) provides a comprehensive and context-sensitive lens through which the adoption and use of forensic accounting tools in the Nigerian public sector can be understood. Its emphasis on legitimacy, normative conformity, and institutional environment aligns with the realities of governance structures in Nigeria. While it has limitations in addressing agency and resistance, its integration with empirical observations in this study offers a powerful explanatory model for assessing the institutional dynamics of fraud control mechanisms.

III. METHODOLOGY

➢ *Theoretical Framework*

At its core, Institutional Theory posits that organizations including public institutions are not solely driven by efficiency, but by the need for legitimacy within their institutional environments. According to Scott (2004), institutions act within a web of formal rules, informal norms, and cultural expectations that constrain and shape their behavior. Organizational practices, such as the adoption of forensic accounting tools, are thus often responses to external institutional pressures, which may be: Regulative (legal mandates, anti-corruption frameworks) Normative (professional auditing standards, donor expectations) Cultural-cognitive (beliefs about transparency and integrity in governance) These pressures lead to institutional isomorphism, where agencies tend to conform to practices seen as legitimate, even if not the most technically efficient.

This study adopts a survey research design, which is most appropriate for assessing the opinions, experiences, and practices of respondents regarding the moderating effect of whistle-blowing policy on the relationship between digital forensic accounting techniques and fraud detection performance by anti-corruption agencies in Nigeria.

The target population for this study comprises personnel involved in fraud investigation, digital forensic operations, audit, compliance, whistle-blowing administration, and internal control Nigerian anti-corruption and regulatory agencies department.

➢ *Economic and Financial Crimes Commission (EFCC)-231*

- Independent Corrupt Practices and Other Related Offences Commission (ICPC) 157
- Code of Conduct Bureau (CCB) 98
- Nigerian Financial Intelligence Unit (NFIU) 123
- National Assembly Committees on Anti-Corruption. 45
- The Public Procurement Regulatory Authority. 76
- The Bureau of Public Enterprises (BPE) 58
- Total Population of Seven hundred and eighty eight (788)

These institutions were purposively selected because they actively implement digital forensic accounting tools and manage whistle-blowing mechanisms**,** making them critical to Nigeria's anti-corruption framework.

IV. DISCUSSION OF FINDINGS

This study tested several hypotheses to assess the effects of digital forensic accounting techniques and the moderating role of whistleblowing policy on fraud detection by anti-corruption agencies in Nigeria. The findings revealed that all three hypotheses were rejected, indicating significant relationships between the variables.

HO1: There is no significant effect of Computer-Assisted Audit Techniques (CAATs) on fraud detection by anti-corruption agencies in Nigeria. The hypothesis was rejected. The results of Regression Model 1 (Table 4.6) showed that CAAT had a significant positive effect on fraud detection, with a coefficient of 0.6234 and a p-value of 0.0000. This finding suggests that the use of CAATs substantially enhances fraud detection efforts by anti-corruption agencies in Nigeria. This result aligns with Ramos and Araujo (2020), who found

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/26may014

that CAATs improve the efficiency and accuracy of detecting fraudulent activities in financial transactions. Kranacher, Riley, and Wells (2011) also argued that CAATs have revolutionized forensic accounting, allowing auditors to analyze large datasets to detect patterns indicative of fraud. However, some literature such as Glover and Prawitt (2014) suggested that the use of CAATs alone may not always guarantee effective fraud detection unless accompanied by strong professional judgment and experience. While CAATs offer powerful tools for data analysis, Kogan et al. (2015) emphasized that the human element is still critical in interpreting the results of these tools. This finding supports Agency Theory, which emphasizes the importance of tools and monitoring mechanisms (such as CAATs) to reduce information asymmetry and improve the detection of fraudulent behavior in organizations.

HO2: There is no significant effect of data mining techniques on fraud detection by anti-corruption agencies in Nigeria. This hypothesis was also rejected. The analysis in Regression Model 2 (Table 4.9) indicated a significant positive relationship between data mining techniques (DMT) and fraud detection, with a coefficient of 0.4873 and a p-value of 0.0000. This finding is consistent with the work of Feng et al. (2018), who found that data mining techniques are effective in detecting fraud by identifying hidden patterns in large datasets. García et al. (2021) also confirmed that DMTs have enhanced the fraud detection capabilities of various auditing and anti-corruption agencies. On the other hand, Keenan et al. (2017) noted that while data mining techniques hold significant potential for fraud detection, they may be prone to false positives if not appropriately tailored to the specific data and context. This underscores the importance of customizing these techniques based on the specific nature of the fraud being investigated. The findings align with Data Mining Theory, which posits that advanced computational techniques can mine large datasets to extract meaningful patterns that might indicate fraudulent activities.

HO3: There is no significant effect of advanced analytics on fraud detection by anti-corruption agencies in Nigeria. This hypothesis was rejected as well. The results from Regression Model 3 (Table 4.12) indicated that Advanced Analytics (AA) had a significant positive effect on fraud detection, with a coefficient of 0.5527 and a p-value of 0.0000. This finding is supported by Zhou and Lee (2020), who argued that advanced analytics, including predictive modeling and machine learning techniques, can enhance fraud detection by identifying unusual patterns and behaviors that might indicate fraudulent activity. Boulianne and Palacios (2019) further emphasized that advanced analytics tools are becoming indispensable for anti-corruption agencies in detecting fraud with higher accuracy. However, Fanning and Cogger (2019) cautioned that the effectiveness of advanced analytics tools is highly dependent on the quality of the data and the capacity of the agencies to interpret and act on the results. They argued that without proper infrastructure and skilled personnel, the full potential of these tools may not be realized. The results are in line with Technological Determinism Theory, which asserts that technology can significantly impact organizational outcomes. In this context, advanced analytics offers powerful tools that drive improvements in fraud detection.

➢ *Summary of Findings*

The study aimed to assess the impact of various digital forensic accounting techniques (such as Computer-Assisted Audit Techniques (CAATs), Data Mining Techniques (DMT), Advanced Analytics (AA), and Network Analysis Techniques (NAT)) on fraud detection by anti-corruption agencies in Nigeria, while also evaluating the moderating role of whistleblowing policies. The analysis, based on multiple regression models, conditional effects, and interaction terms, led to the following key findings:

- The study found a significant positive relationship between CAATs and fraud detection. Regression results indicated that the use of CAATs significantly enhances fraud detection capabilities by anti-corruption agencies in Nigeria. This finding supports the idea that technology-driven techniques, such as CAATs, play a vital role in identifying fraudulent activities, especially when handling large and complex datasets.
- DMT was found to have a significant positive effect on fraud detection. The application of data mining techniques enables the identification of hidden patterns and anomalies within financial data, which improves fraud detection accuracy. These results highlight the importance of data mining in enhancing the effectiveness of fraud detection systems used by anti-corruption agencies.
- The study found that Advanced Analytics significantly contributes to fraud detection. Advanced analytical tools, including machine learning and predictive modeling, have proven to be effective in detecting fraud by uncovering unusual patterns and behaviors that are indicative of fraudulent activity. This finding underscores the growing importance of data-driven decision-making tools in the fight against corruption.

V. CONCLUSION AND RECOMMENDATIONS

➢ *Conclusion*

The study confirmed that CAATs, DMT, AA, and NAT are all significantly effective in detecting fraud within Nigerian anti-corruption agencies. These findings emphasize the increasing importance of integrating digital forensic accounting techniques into the operations of such agencies to improve their capacity to detect fraud and corruption. Moreover, the study highlighted the pivotal role of whistleblowing policies. It was evident that a well-structured whistleblowing policy does not only support these forensic tools but also acts as an essential enabler in the detection process by encouraging individuals to report fraudulent behavior. Therefore, a combination of advanced technology

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/26may014

and robust reporting frameworks is necessary for improving anti-corruption efforts.

➢ *Recommendations*

Based on the findings from this study, here are some practical recommendations to help anti-corruption agencies in Nigeria improve their fraud detection efforts:

- Anti-corruption agencies in Nigeria should prioritize the integration of advanced forensic tools like Computer-Assisted Audit Techniques (CAATs), Data Mining Techniques (DMT), Advanced Analytics (AA), and Network Analysis Techniques (NAT) into their everyday operations. These tools are not just helpful but essential for improving the detection of fraud, and their integration will make the agencies much more effective at identifying and preventing fraudulent activities.
- Whistleblowing policies need to be clear, accessible, and well-communicated to everyone within and outside the agency. Protecting whistleblowers is vital to encourage more individuals to report fraudulent activities without fear of retaliation. Additionally, offering incentives or rewards to those who come forward will create more motivation for people to get involved and support the fight against corruption.
- Continuous training for anti-corruption agency personnel is key to keeping up with the fast-paced changes in digital forensic tools and whistleblowing management. Training should focus on equipping staff with the necessary technical skills to effectively use the latest forensic tools, as well as educating them on the ethical and legal aspects of handling whistleblowing information. This ensures that staff members are both well-prepared and ethically grounded.

➢ *Contribution to Knowledge*

This study contributes to existing literature by expanding the understanding of how digital forensic accounting techniques influence fraud detection in the context of Nigerian anti-corruption agencies. It highlights the significance of combining these techniques with strong whistleblowing policies, an area that has not been extensively researched in the Nigerian context. By demonstrating that whistleblowing policies significantly enhance the effectiveness of digital forensic tools, the study provides valuable insights for policy development in the fight against corruption. Additionally, the research contributes to the broader field of forensic accounting by emphasizing the critical role that technology and reporting mechanisms play in detecting fraud.

➢ *Suggestions for Further Study*

While this study provides important insights into fraud detection practices in Nigerian anti-corruption agencies, there is still room for further research. Future studies could:

- Research could examine how organizational culture in Nigerian anti-corruption agencies influences the effectiveness of digital forensic accounting tools and whistleblowing policies.
- Future studies could investigate the barriers to implementing advanced forensic accounting techniques and effective whistleblowing policies, particularly in low-resource settings.

REFERENCES

[1]. Adegbie, F. F., & Fakile, A. S. (2022). Forensic accounting and fraud detection in the Nigerian public sector. *Journal of Accounting and Financial Research*, 12(1), 34–47.

[2]. Ajibade, D., & Adebayo, M. (2023). *Judicial outcomes and fraud deterrence in Nigeria's public sector*. Nigerian Journal of Anti-Corruption Studies, 14(2), 99–116.

[3]. Alles, M., & Gray, G. L. (2016). *Continuous auditing: Implications for assurance, monitoring, and risk assessment*. Journal of Emerging Technologies in Accounting, 13(2), 1–24. https://doi.org/10.2308/jeta-51451

[4]. Aluko, T. (2023). *Mapping fund transfer patterns in local government councils: A network analysis approach to procurement fraud detection*. Journal of Nigerian Public Sector Forensics, 15(2), 55–72.

[5]. Ani, J. (2023). *Legal protection for whistle-blowers in Nigeria: Challenges and prospects*. African Journal of Public Administration, 10(1), 66–79.

[6]. Asogwa, I. C., & Ani, A. A. (2023). *Shell companies and procurement collusion in Nigeria: The forensic role of network analysis*. Journal of Financial Crime and Compliance, 20(3), 112–127.

[7]. Bello, A. M., & Adebayo, S. O. (2023). Effectiveness of fraud detection mechanisms on financial reporting quality in Nigeria. *Nigerian Journal of Forensic Accounting and Investigations*, 5(2), 55–68.

[8]. Chukwunweike, I., Uche, C., & Agbo, S. (2022). *Whistle-blower mechanism and fraud detection efficiency in Nigerian public agencies*. International Journal of Public Sector Management, 35(1), 48–67.

[9]. Curtis, M. B. (2020). *Advanced analytics in forensic accounting: The fraud triage model*. Journal of Forensic & Investigative Accounting, 12(1), 45–69.

[10]. Ekechi, O., & Edeh, C. (2023). *Data analytics in fraud detection: Empirical evidence from Nigerian public sector audits*. African Journal of Digital Governance, 7(3), 101–119.

[11]. Eme, O. I., Chukwurah, D. C., & Ogbo, U. B. (2023). Curbing financial fraud in the Nigerian public sector through forensic auditing. *International Journal of Public Administration and Policy Research*, 15(1), 67–81.

[12]. Eze, C. A., & Ogiji, P. O. (2022). *Metadata-based fraud tracking: Integrating whistle-blower inputs with digital audits*. Nigerian Journal of Accounting Research, 14(4), 87–104.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/26may014

[13]. Faust, K. (2025). *Relational structures and fraud analytics: A graph-theoretical perspective*. Computational Forensics Review, 12(1), 23–41.
[14]. Federal Ministry of Finance, Budget and National Planning. (2023). *Whistle-blower protection bill and anti-corruption reforms*. Abuja: Government Press.
[15]. Moffitt, K. C., & Vasarhelyi, M. A. (2013). *AIS in an age of big data*. Journal of Information Systems, 27(2), 1–19.
[16]. Musa, I. (2022). *Whistle-blowing and conviction rates in Nigerian anti-graft institutions: A comparative study of EFCC and ICPC*. Journal of Law and Social Development, 11(2), 91–108.
[17]. Nasir, M., & Adebayo, T. (2023). *Predictive analytics and VAT fraud detection in Nigerian tax administration*. International Journal of Digital Governance, 6(1), 53–70.
[18]. Near, J. P., & Miceli, M. P. (2015). *Organizational whistle-blowing: Clarifying a concept*. Academy of Management Review, 40(3), 678–708.
[19]. Ogwueleka, F. N., & James, I. (2021). *Effectiveness of whistle-blower platforms on forensic fraud investigations in Nigerian MDAs*. African Journal of Anti-Corruption Studies, 9(3), 142–160.
[20]. Okafor, A. (2022). *ERP integration and fraud risk management in Nigeria's public sector*. Journal of Accounting and Technology, 18(4), 75–94.
[21]. Okoye, E., & Gbegi, D. O. (2019). *Whistle-blower mechanisms and fraud control in the Nigerian public sector: The digital interface*. International Journal of Forensic Accounting, 7(2), 101–117.
[22]. Okoye, P. V. C., & Gbegi, D. O. (2023). Forensic accounting, whistle-blowing and fraud detection in the Nigerian public service. *Journal of Public Sector Economics and Governance*, 9(2), 25–41.
[23]. Oladipupo, A. O., & Obalola, M. A. (2021). *Forensic accounting standards and fraud evidence accuracy in Nigeria*. Journal of Financial Accountability, 13(1), 67–85.
[24]. Olaoye, S. A., & Ogundipe, A. A. (2021). Effect of public sector fraud on taxpayers' trust and revenue generation in Nigeria. *Nigerian Journal of Management Studies*, 18(2), 109–123.
[25]. Omiya, A. (2022). *Data visualization and procurement fraud detection in Nigerian federal audits*. African Journal of Forensic Accounting, 8(4), 98–113.
[26]. Onuora, A. I., & Ugbede, I. D. (2022). Financial fraud and its implications for public institutions in Nigeria. *African Journal of Forensic Accounting and Investigation*, 6(1), 78–92.
[27]. Onyekwelu, U. L., & Ugwuanyi, C. C. (2023). Financial fraud and public sector accountability in Nigeria: The role of audit committees and forensic accounting. *Journal of Public Sector Economics and Governance*, 9(2), 45–59.
[28]. Perols, J. L., & Lougee, B. A. (2011). *The layered visualization of fraud behavior: An application of network modeling in audit systems*. Review of Accounting Studies, 16(4), 659–690. https://doi.org/10.1007/s11142-010-9150-7
[29]. Singleton, T. W., Singleton, A. J., Bologna, G. J., & Lindquist, R. J. (2016). *Fraud auditing and forensic accounting* (5th ed.). Hoboken, NJ: John Wiley & Sons.
[30]. Uzonwanne, G. (2022). *Graph theory applications in forensic investigations: Case evidence from six Nigerian ministries*. Nigerian Journal of Audit and Investigative Accounting, 7(1), 88–105.
[31]. Zingales, L. (2020). *Whis4tle-blowing in the public interest: Institutional supports and risks*. Journal of Business Ethics, 164(3), 365–382