

Sustainable Forensic Accounting amidst Growing Sophisticated Technological Advancement and Corporate Fraud as Challenges

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Abstract

Forensic accounting plays a crucial role in preventing and detecting financial fraud, combining investigative skills with accounting expertise to uncover financial record's discrepancies. As corporate fraud schemes grow more sophisticated, forensic accountants utilize modern techniques such as data analytics, artificial intelligence (AI), and blockchain for fraud detection and prevention. Despite technological advancement, forensic accounting faces numerous challenges such as cyber-enabled financial fraud, the extent of fraud crime distribution, absence of specialized technology, and the cooperation among stakeholders. The objective of this research was to investigate how these challenges influence effective, comprehensive and sustainable forensic financial report in Nigeria, questionnaire was used for data collection from a random sample size of three hundred professional accountants in 30 auditing firms out of which 293 questionnaires were recovered forming a 97.7% response rate and was analysis using SPSS software. The descriptive statistics included frequency, percentage, means, and standard deviation were used to measure the demographic characteristics and sample trends for the different paragraphs of the questionnaire, The results showed that Despite technological progress, forensic accounting faces numerous challenges which include complexity of financial fraud, which often involves cross-border transactions and complicated concealment tactics., the growing volume of financial data, Legal and regulatory inconsistencies across jurisdictions further complicate fraud investigations, making enforcement cumbersome. Furthermore, fraudsters are increasingly using emerging technologies, such as cryptocurrency and cyber-enabled financial crimes, to circumvent traditional detection mechanisms. In view of the above, the researcher recommended that, forensic accountants should enhance their analytical capabilities, integrate AI and machine learning tools, and work with cybersecurity experts. Regulatory bodies should also implement strict compliance frameworks to check financial fraud in Nigeria.

Key Words: Forensic accounting; Financial fraud; cyber-enabled financial fraud, Cross-border financial fraud and regulatory frameworks and legal challenges

1.0 Introduction

Financial fraud is a pervasive challenge in the global economy, causing financial and material losses, eroding investor confidence, and undermining the integrity of financial systems. The increasing complexity of fraudulent schemes, facilitated by technological improvement and globalization, has triggered the evolution of forensic accounting as a specialized discipline that combines financial expertise with investigative methodologies. Forensic accounting involves the systematic examination of financial records, transaction patterns, and corporate governance structures to detect and prevent fraudulent activities. It is widely applied in corporate investigations, litigation support, regulatory compliance, and risk management. The demand for forensic accounting has increase in recent years due to the rising incidents of financial fraud, including asset misappropriation, financial statement fraud, and cyber-enabled financial crimes. As regulatory bodies impose stringent compliance frameworks and corporations seek vigorous fraud detection mechanisms, forensic accounting has arose as a panacea for ensuring financial accountability and transparency. Recent development in forensic accounting have been largely driven by blending data analytics, artificial intelligence (AI), and blockchain technology.

The rapid growth of financial data has prompted the development of sophisticated analytical models capable of detecting and preventing fraudulent activities. AI-driven forensic techniques leverage algorithms and machine learning to identify abnormal patterns in financial transactions, assess behavioral anomalies, and enhance predictive analytics. Blockchain technology, with its unalterable ledger system, offers additional security against financial fraud by ensuring transparent transaction and traceability.

Additionally, forensic accountants increasingly rely on digital forensics to investigate cyber-enabled fraud schemes, including phishing attacks, ransomware incidents, and cryptocurrency-related frauds. The merging of forensic accounting with digital technologies has significantly enhanced fraud detection capabilities, but it also presents challenges related to data privacy, ethical considerations, and the adaptability of traditional accounting frameworks to emerging technologies. Despite these advancements, forensic accounting continues to encounter significant challenges in the detection and prevention of financial fraud. One of the foremost challenges is the sophistication of modern fraud schemes, which often involve complex financial instruments, offshore accounts, and digital assets that are difficult to trace. Additionally, financial fraud frequently transcends national borders, complicating the implementation of anti-fraud

regulations due to jurisdictional inconsistencies. The rapid proliferation of financial transactions, fueled by e-commerce and digital banking, has further increased the volume of data that forensic accountants must analyze, requiring continuous upgrading and adaptation to evolving fraud techniques. Moreover, fraudsters increasingly exploit regulatory loopholes and emerging financial instruments, such as cryptocurrencies, to bypass conventional fraud detection systems.

These challenges underscore the need for a multi-disciplinary approach that integrates forensic accounting with cybersecurity, regulatory execution, and legal expertise. To address these issues, forensic accounting research must focus on developing advanced fraud detection methodologies that incorporate AI-driven forensic techniques, automated risk assessment models, and enhanced regulatory frameworks. The role of forensic accountants is evolving beyond traditional financial investigations to encompass proactive fraud prevention strategies, including real-time transaction monitoring, forensic auditing of high-risk entities, and collaboration with international regulatory bodies. As financial fraud continues to evolve in complexity, forensic accounting must adapt through continuous innovation, interdisciplinary collaboration, and the adoption of cutting-edge forensic technologies.

Furthermore, forensic accounting has gained prominence not only in corporate fraud detection but also in regulatory compliance, legal proceedings, and governmental anti-corruption efforts. Governments and financial institutions worldwide are tightening their scrutiny of financial transactions, driven by the increasing frequency of high-profile fraud cases. Regulatory agencies such as the U.S. Securities and Exchange Commission (SEC), the Financial Action Task Force (FATF), and the International Accounting Standards Board (IASB) have emphasized the importance of forensic accounting in combating money laundering, tax evasion, and financial misstatements. As a result, forensic accounting has become an indispensable tool in forensic investigations, corporate governance, and litigation support. The effectiveness of forensic accounting in fraud detection largely depends on the integration of quantitative techniques, forensic auditing procedures, and advanced computational methods. These tools enable forensic accountants to analyze vast datasets, detect fraudulent patterns, and present legally admissible evidence in court proceedings. The combination of machine learning and big data analytics in forensic accounting has transformed the way financial fraud is uncovered and analyzed.

Traditional forensic accounting methods, which relied heavily on manual auditing and sampling techniques, have proven insufficient in handling the increasing complexity and scale of

modern financial transactions. The introduction of AI-driven forensic tools allows for the real-time detection of fraudulent activities by identifying irregularities in financial transactions, behavioral contradiction, and suspicious financial movements. For instance, machine learning algorithms can classify transactions based on historical fraud patterns, flagging high-risk transactions for further investigation. Moreover, AI-powered natural language processing (NLP) techniques facilitate the analysis of unstructured data sources, such as emails, contracts, and financial reports, to uncover potential fraudulent intent.

These technological advancements have substantially improved fraud detection efficiency, curtailing the time and resources required for forensic investigations. However, the reliance on AI and machine learning also presents new challenges, including data privacy concerns, algorithmic biases, and the need for human expertise to interpret intricate fraud signals accurately.

The case for forensic accounting in some countries started very late (Abdulrahman, 2019; Al-Sharairi, 2018; Richard et al., 2009). This causes facing challenges to apply forensic accounting. MENAFATF (2019) reported the extent of financial crimes in Jordan in 2016. The wide variety of financial crimes and the extent of crimes form a challenge with the lack of enough trained staff to fight this crime.

Other challenges related to the available technology. Ocansey (2017) reported that information technology governance and risk management tools are considered very crucial in achieving effective forensic accounting systems. This makes the availability of forensic accounting IT a very important position for specialists. This leads to a new challenge related to the share of knowledge among the stakeholders. The availability of satisfactory technology will facilitate the communication among stakeholders to exchange knowledge and experience in forensic accounting.

The challenges that face forensic accounting started from the available information about forensic accounting in the international sources to the available information about the local fraud crimes and the required knowledge of forensic accounting to fight this crime. Abdulrahman (2019) discussed the challenges that face fraud crime-fighting in the public sector. The results showed the possibility to use forensic accounting to fight financial crime in the public sector unless the challenges to its use will be removed. Imoniana (2013) described forensic accounting and fraud

detection as a game. Success in this game requires integrated knowledge about the two pillars to find solutions and reduce challenges to the success of the game.

2.0 Review of Related Literature

Forensic accounting has gained significant attention in the financial sectors as an effective tool for detecting and preventing financial fraud. Over the past few decades, researchers have explored various aspects of forensic accounting, including its methodologies, technological advancements, and challenges in fraud detection. One of the early works in this field by Crumbley et al. (2003) emphasized the importance of forensic accounting as a bridge between traditional auditing and investigative techniques, highlighting its role in fraud detection and litigation support. Since then, forensic accounting has evolved considerably, with numerous studies investigating its effectiveness in addressing financial crimes. DiGabriele (2008) analyzed the competencies required by forensic accountants, concluding that a combination of accounting knowledge, investigative skills, and legal understanding is crucial for effective fraud detection. This perspective was supported by Bhasin (2013), who examined corporate fraud cases and found that forensic accountants play a pivotal role in uncovering financial misconduct, particularly in large corporations where fraudulent schemes are often complex and well-concealed.

Blockchain technology has also emerged as a potential solution to financial fraud, with several studies analyzing its impact on forensic accounting practices. Dai and Vasarhelyi (2017) examined the implications of blockchain for financial transparency, concluding that its decentralized and immutable nature enhances the security and traceability of transactions. Similarly, Wang and Kogan (2018) highlighted that blockchain can reduce the risk of financial manipulation by providing a tamper-resistant ledger that forensic accountants can use to verify transactional authenticity. However, other researchers have pointed out limitations in blockchain's adoption in forensic accounting. Peters and Panayi (2016) noted that while blockchain enhances transparency, it also presents challenges related to regulatory compliance and the anonymity of cryptocurrency transactions, which fraudsters can exploit for illicit financial activities. More recently, Schuchter and Levi (2022) suggested that forensic accountants must develop specialized methodologies to track and analyze blockchain-based transactions effectively, particularly in cases involving money laundering and cyber-enabled financial fraud. These studies indicate that while

blockchain has significant potential in fraud prevention, its full integration into forensic accounting requires further research and regulatory developments.

Regulatory frameworks and legal challenges in fraud detection. Albrecht et al. (2012) examined the role of forensic accounting in corporate governance, emphasizing that regulatory compliance and internal controls are critical in preventing fraudulent activities. Their findings align with those of Dorminey et al. (2012), who proposed the fraud triangle theory as a conceptual framework for understanding financial fraud. According to their study, financial fraud is driven by three factors: opportunity, pressure, and rationalization. This theory has been widely adopted in forensic accounting research, with numerous studies applying it to analyze corporate fraud cases. For instance, Free and Murphy (2015) explored high-profile fraud scandals such as Enron and WorldCom, concluding that weak corporate governance structures and inadequate regulatory oversight contributed to the perpetration of large-scale financial frauds. However, Sutherland et al. (2020) criticized the fraud triangle model for its inability to fully capture the complexities of modern financial fraud, suggesting that forensic accounting should incorporate behavioral analytics and psychological profiling to better understand fraudulent intent. These findings highlight the evolving nature of forensic accounting theories and the need for continuous refinement of fraud detection models.

Cross-border financial fraud has also been a growing concern in forensic accounting literature, particularly with the increasing globalization of financial markets. Young et al. (2016) analyzed international fraud cases and found that jurisdictional inconsistencies in financial regulations pose significant challenges for forensic accountants. Their study highlighted the need for harmonized regulatory standards and increased cooperation between international regulatory bodies to facilitate cross-border fraud investigations. Similarly, Gottschalk (2018) examined the role of forensic accountants in transnational financial crime cases, concluding that regulatory fragmentation and differences in legal frameworks hinder the effectiveness of international fraud enforcement. More recently, Perols et al. (2021) emphasized the importance of forensic data sharing between financial institutions and regulatory agencies to enhance fraud detection capabilities. Their study found that collaborative efforts, such as data-sharing agreements and joint investigations, significantly improve the detection and prevention of cross-border financial crimes. These findings underscore the importance of international cooperation in forensic accounting and the need for standardized regulatory measures to combat global financial fraud.

Cyber-enabled financial fraud has also been a subject of extensive research. With the rise of digital banking, cryptocurrency transactions, and online financial platforms, cybercriminals have developed sophisticated techniques to commit fraud while evading detection. Soltani (2014) analyzed cyber fraud trends and found that forensic accountants must acquire expertise in digital forensics and cybersecurity to effectively investigate cyber-enabled financial crimes. Similarly, Smith et al. (2019) examined the impact of cyber fraud on financial institutions, concluding that traditional forensic accounting methods are insufficient in detecting cyber-enabled financial fraud due to the complexity and speed of digital transactions.

More recently, Ofoeda et al. (2022) suggested that forensic accounting must integrate cybersecurity protocols, AI-driven anomaly detection, and blockchain analytics to enhance cyber fraud investigations. These studies indicate that forensic accountants must expand their skill sets to include cybersecurity knowledge, as financial fraud continues to evolve in the digital age. Researchers have explored various aspects of forensic accounting, including its methodologies, technological advancements, regulatory challenges, and applications in cross-border and cyber-enabled financial fraud. While advancements such as AI, blockchain, and big data analytics have significantly improved fraud detection capabilities, challenges related to regulatory inconsistencies, technological limitations, and jurisdictional complexities remain. Future research should focus on integrating forensic accounting with emerging technologies, enhancing regulatory cooperation, and developing standardized forensic methodologies to address the evolving nature of financial fraud.

2.1 Theoretical Framework

This study is anchored on Fraud Triangle Theory. According to Dorminey, Fleming, Kranacher and Riley (2020), the origin of the theory dates to the works of Sutherland, who coined the term white collar crime, and Cressey, one of Sutherland's former students. The fraud triangle theory consists of three elements that are necessary for theft or fraud to occur: perceived pressure, perceived opportunity and rationalization.

The fraud triangle has been put forward to explain the prevalence of fraud in organizations. According to Adebisi, Okike and Yoko (2020), forensic accounting relies on the fraud triangle to identify weak points in the business systems and to identify possible suspects in cases of fraud. It consists of three core concepts which together create a situation ripe for fraud: incentive, opportunity, and rationalization. People must have the incentive and opportunity to commit

financial fraud, as well as the ability to justify it. Golden, Skalak and Clayton (2020) asserted that within each of the broad risk categories in the fraud triangle, many different and specific potential red flags may be visible within an organization. They identified the risk categories as: Incentive and Pressure; Opportunity; Justification/Rationalization and Attitude. Thus, it would be in the interest of the forensic accountant to acquire good knowledge of these factors to better understand how to prevent fraud. Nigrini (2011) posit that the first reason employees get involved in fraud is pressure. He enumerates the pressure factors to include:

Pressures with financial content, Pressures stemming from habits and Pressures related with the job. As noted by Olukowade and Balogun (2021), the harsh economic environment in Nigeria has more than anything else pressured employees into financial malpractice in order to take care of financial obligations. Opportunity is another important component of the fraud triangle. It directly involves top management and owners of the business in particular. Providing the opportunity to commit fraud is one of the most important factors arising from frauds. Since the business could greatly influence opportunity factor, this point should receive particular attention for fraud prevention.

Mukoro, Ogijo, and Faboyede (2019) asserted that weak internal control systems make it overly easy for employees to pass over certain fraudulent activities. Finally, is the attempt or effort by the fraudster to justify or rationalize their nefarious activity. Some individuals are more prone than others to commit fraud. Other things being equal, the propensity to commit fraud depends on people's ethical values as well as on their personal circumstances. Ethical behavior is motivated both by a person's character and by external factors. Depending on ethical values, the fraudster is likely to put forward one of the following as justification for his/her crime: I deserve this; No one is hurt and the company is helped; the company does not really care; It is just temporary among many others (Golden, Skalak & Clayton 2022).

2.2 Empirical Review

The essence of this review is to study other empirical studies that hold some level of significance to the study being conducted, such as: Abdulrahman (2019) studied the use of forensic accounting to prevent fraud in the public sector in Nigeria. The study used different selected papers concerned with the use of forensic accounting in fraud-fighting from Nigeria and other countries. The study used content analysis procedures. The results of the study showed that forensic

accounting techniques are not applied in Nigeria to prevent fraud in the public sector. Moreover, a framework should be prepared to include all the parties interested in fighting fraud from private and public sectors to build the required capabilities for application.

Hamdan (2019) studied the discovering of fraud using forensic accounting in Jordan. The study was applied to on simple random sample of auditors in Jordan. The study concerned with four variable that considered the basics to qualify the accountants to practice the forensic accounting and the available environment that facilitate the use of forensic accounting to discover the financial fraud in Jordan. The study included 630 accountants from the auditing offices. The study used structural equation modeling to study the extent of the effect of four variables included in the study to determine the problems that face the use of forensic accounting in Jordan. Factorial analysis was used to measure the ability of items to measure different variables.

The knowledge of the legal structure and the legal procedures were in the first position as a determinant to use forensic accounting to discover fraud, the second factors were for the experience required to practice forensic accounting to discover fraud, while the third factor was for the connection between the accounting field and the legal knowledge, and the last factors was for the tools and procedures used to practice forensic accounting. The results of this research have shown that different factors should be available to practice forensic accounting in discovering financial fraud. On the other hand, the accountants' preparation in Jordan to practice forensic accounting is not enough at the current stages. Also, the low realization of the importance of technology to practice forensic accounting makes it the final interest of accountants in Jordan.

Ehioghiren (2016) studied fraud management using forensic accounting. The author indicating that the development of the country is controlled by the level of financial fraud. The federal government in the country founded corruption institutions to minimize the level of corruption in the country. The fraud high level left a negative impact on organizations and individuals in Nigeria. The study used the questionnaire as a tool to collect the data. The number of questionnaires distributed was 572. The results showed that forensic accounting has a direct impact on fraud detection. The author has shown that training in the field of forensic accounting is considered a challenge to practice professionally in Nigeria. Also, the study recommended that

the council in the change of financial reporting should use specific formats to facilitate the discovery of fraud through the techniques applied.

Okoye, et al., (2019) studied the relation between Forensic accounting services and fraudulent activities. The study concentrated on studying forensic accounting services in the banking sector in Nigeria and the possibility of fraud control. The study concentrated on computer fraud and e-crimes. The questionnaire was used to collect the data. The number of questionnaires distributed was 200 ones and the retrieved were 188 ones with a high response rate. The targeted group was the accountants working in the auditing field. The results showed that the application of forensic accounting contributes to combat the fraud e-crimes. The study recommended that the individuals working in accounting should learn both computer skills and rules of forensic accounting to participate in controlling this type of crime.

Ocansey (2017) investigated the possibility of using forensic accounting to combat financial and economic crime in Ghana. The study emphasized the high demand for forensic accounting to fight economic crimes in all countries. The paper indicated that training and enough skills are required to use forensic accounting in combat economic crime in Ghana. The study concentrated on investigating the techniques applied to stop these crimes in Ghana. The study used a sample of technical officers and regression modeling to reach the results. The major results of this research indicated that the use of forensic accounting will facilitate the combat of financial and economic crimes. The success is connected to the establishment of specialized units that supervise the use of forensic accounting and guide its use to fight these crimes. Also, the results indicated that the cooperation between the different parties is very important to success its application.

Kankpang, A.k, et al., (2024) investigated the importance of using forensic accounting to prevent fraud crime in Nigeria. The author considered fighting fraud is a challenge and the use of forensic accounting is the solution to this challenge. The paper has shown the success of forensic accounting requires the preparation of accountants with high qualifications in this field to able to detect fraud in all sectors and environments. The paper indicated that the cooperation between the government and the other interesting sector will facilitate the use of forensic accounting in combat fraud crime in Nigeria.

Tawfeeq, et al., (2014) studied the possibility of using forensic accounting to reduce financial corruption in Iraq. The authors have shown that corruption is considered one of the most serious problems that affect the future of Iraq. The research indicated that corruption will slow down economic growth. The study investigated the possibility of forensic accounting applications in Iraq to discover financial frauds. The data for this research was collected through questionnaires and interviews. The results indicated that the use of forensic accounting in Iraq will minimize corruption cases. They have shown that one of the challenges facing the application of forensic accounting is represented in the lack of curriculum of any material that teaches the students the methods of forensic accounting applications. The second challenge was raised is related to the lack of knowledge among the accountants and auditors about forensic accounting. The study recommended the addition of forensic accounting to the curriculum in accounting divisions at the universities in Iraq.

Dubey (2014) explained the different components of forensic accounting. The paper raised the importance of legal proceedings to activate the use of forensic accounting. The paper insists that the use of forensic accounting without strong regulations support its use will reduce the effectiveness of its use to discover fraud. The paper introduced the objective of forensic accounting in five fields including its use to facilitate the settlement, claims, and financial debates, to discover fraud and theft, restoring public confidence in public financial systems, finding comprehensive governance policies, the last use is to create a positive environment at work. The study has limited the fraud risk management in three points: prevent, detect and respond, while the fraud risk management strategy should deal with the risk areas, developing a response strategy to risk, implement and monitor the control tools, and getting feedback to improve the strategy of fraud to control fraud risk. The paper illustrated that the procedures and techniques applied through forensic accounting should be suitable for the type of fraud that is being detected. Moreover, the papers introduced the characteristics of fraudsters showing that the complications the fraud will be made are dependent on the different demographic and educational conditions him. Also, the paper emphasized that the door should be opened to facilitate the usage of forensic accounting in different financial aspects supported by regulations.

3.0 Methodology

To accomplish the objective of this research the questionnaire was used as a tool for data collection. The targeted population was the accountants working in the auditing firms in Calabar, Cross River State. The questionnaire was segmented into four parts. The first was designed to collect the demographic data, the rest was introduction and questions about the challenges that serve as roadblock to effective forensic accounting jobs in Nigeria, using five Likert scales for each paragraph. The draft questionnaire was submitted to a group of specialists to review and contribute their ideas and the language that best suits the questionnaire.

A pilot survey was performed to measure the reliability questionnaire and detect mistakes and language ambiguity. The total number of questionnaires distributed was 300 to 30 auditing firms out of which 293 questionnaires were recovered forming a 97.7% response rate. The collected questionnaire was entered into SPSS software for analysis. The descriptive statistics included frequency, percentage, means, and standard deviation were used to measure the demographic characteristics and sample trends for the different paragraphs of the questionnaire.

4.0 Results and Discussion

Cronbach's Alpha was used to measure the reliability of the questionnaire. The results showed that the Alpha value exceeded 0.6 for all variables reflecting that the questionnaire is reliable for this study (Table 1).

Table 1	
RELIABILITY ANALYSIS USING CRONBACH ALPHA	
Field	Alpha value
Forensic accounting experience	92.3
The extent of fraud crime distribution	89.3
Availability of specialized technology	84.3
The cooperation among stakeholders	81.2
Total	94.1

Author's compilation

Demographic Characteristics

The results showed that the sample was almost equally distributed among the management (48.3%) and the employees (51.7%). This distribution was designed to figure out the feedback from the management and the employees of the auditing firms for the variables of this research. The highest educational level was for bachelor (91.0%) which is the minimum qualification allowed to get a license to open auditing offices, while the graduate studies formed only 9.0% of the sample.

The highest experience was recorded for less than 5 years (48.4%) followed by the experience 5 to 10 years (39.4%). The minimum distribution was for the experiences 10 to 15 years (9.0%) and more than 15 years (3.2%). The experiences that exceeded 10 years were for the managers as the experience formed a condition to get a license to manage auditing office.

Table 2 DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE (n=293)	
Character	Percentage
Position	
Management	48.3
Employee	51.7
Educational level	
Bachelor	91
Graduate studies	9
Experience	
Less than 5 Years	48.4
From 5 to less than 10 years	39.4
From 10 to less than 15 Years	9
Over 15 years	3.2
Author's compilation	

The experience of forensic accounting is considered the base that is used to develop this type of accounting to fight fraud crimes. The results showed that the lack of experience was in the first position challenges facing the application of forensic accounting in Nigeria (Table 3).

Table 3 THE ATTITUDES OF EMPLOYEES FOR FORENSIC ACCOUNTING EXPERIENCE CHALLENGES		
Variable	Mean	Standard deviation
Lack of local sources for forensic accounting	4.6	0.62

Lack of accumulative local classification for forensic accounting	4.3	0.71
Lack of higher commissions responsible for forensic accounting application	4.1	0.42
Lack of documentation of fraud crimes	4	0.62
Lack of specialized academic staff	3.9	0.81
Forensic accounting experience	4.18	0.62
Author's compilation		

The lack of local sources that concerned the development of forensic accounting was the first challenge (m=4.6). The lack of these types of sources will direct the attention to use external ones which may not be compatible with the type of fraud crime in Jordan. The techniques that these sources use may be different as the crime techniques are different too.

The classification of forensic accounting is considered a challenge to develop and apply this type of accounting (m=4.3). The classification of forensic accounting will help the development of tools that meet the needs for each type of fraud crime in Jordan. Also, the results showed that there is not anybody inside Jordan that adopts the development of forensic accounting (m=4.1). This challenge will scatter the effort to find out the integrated doctrine of forensic accounting in Jordan. The last two challenges are represented in the lack of documentation (m=4.0) and the lack of specialized academic staff (m=3.9). These two challenges will make it difficult to use references and experiences to develop forensic accounting in Nigeria.

The results of this research concerning knowledge availability were matchable with Tawfeeq et al. (2014) and Oseni (2017) indicating that this challenge could exist in many developing countries. Also, Al-Sharairi (2018) indicated that the lack of knowledge in forensic accounting decreases its application on financial statements to figure out the tax evasion in Jordan. Moreover, Khersiat (2018) has shown that there is a misunderstanding between forensic accounting and external auditing among the accountants in Jordan which is resulted from the lack of knowledge about forensic accounting in Nigeria.

The high expansion of fraud crime will decrease the capabilities to control. The report issued by MENAFATF (2019) reflected the high distribution of fraud crimes among sectors and

the wide variety of financial crimes. The respondents reported that the high number of fraud crimes is considered a challenge to apply forensic accounting (m=3.52).

The variety of the financial crimes was in the first position of challenges (m=3.98). The distribution of financial crimes in different sectors will form a challenge to apply forensic accounting due to the different varied tools needed for the application (m=3.75). In this regard, most fraud cases are discovered through the reporting by individuals or the exposure to financial deficiencies within the enterprises. Moreover, the lack of detailed information about the recorded crimes will form a challenge to develop forensic accounting to fight these crimes (m=3.44).

Table 4 THE ATTITUDES OF EMPLOYEES FOR THE EXTENT OF FRAUD CRIME DISTRIBUTION

Variable	Mean	Standard deviation
The wide variety of fraud crimes forms a challenge to apply forensic accounting	3.98	0.82
The wide distribution of fraud crimes in public and private sectors forms a challenge to apply forensic accounting	3.75	0.91
Fraud crime different sectors form a challenge to apply forensic accounting	3.54	0.75
The high number of fraud crimes increase the challenge to apply forensic accounting	3.52	0.79
The lack of information about fraud crimes is a challenge to apply forensic accounting	3.44	1.1
Fraud crime distribution	3.65	0.91

Author's compilation

The technology formed a challenge to develop and apply forensic accounting (m=3.61) (Table 5). The lack of proper technology will lead to use the traditional methods and procedures which will take more time and more effort to collect information and analyze it to discover the financial crimes.

Table 5 THE ATTITUDES OF EMPLOYEES FOR THE AVAILABILITY OF SPECIALIZED TECHNOLOGY

Variable	Mean	Standard Deviation
The lack of knowledge of forensic accounting technology is a challenge	3.71	0.92
The price of technology for forensic accounting is a challenge	3.69	1.1

The lack of training in using technology is a challenge	3.65	0.98
The lack of specialists in forensic accounting technology is a challenge	3.61	0.93
The lack of care of local IT companies for forensic technology is a challenge	3.42	1.2
Availability of specialized technology	3.61	0.92

Author's compilation

The results showed that the price of technology (m=3.69), the lack of training (m=3.65), the lack of specialists for training (m=3.61), and the lack of local IT companies' interest (m=3.42) are challenges in the field of using technology to apply forensic accounting.

The existence of a national ambarella that coordinates the efforts of forensic accounting will facilitate the use of different stakeholders' experiences to develop the knowledge and application of forensic accounting in Jordan. The low cooperation among stakeholders (m=3.63) forms a big challenge to concentrate the efforts (Table 6).

Table 6: THE ATTITUDES OF EMPLOYEES FOR THE COOPERATION AMONG STAKEHOLDERS		
Variable	Mean	Standard Deviation
The ambiguity of stakeholder responsible to care for forensic accounting is a challenge	3.99	0.91
The low cooperation among the announced organizations looking fraud crime is a challenge	3.64	0.81
The lack of a unifying commission for all parties is a challenge	3.53	0.86
The low number of events hold among stakeholders forms a challenge	3.56	0.94
The stakeholders' lack of announcement of fraud crimes is a challenge	3.42	0.85
Cooperation among stakeholders	3.63	0.83

Author's compilation

Nationally, the results showed that there is anybody that cares for the application and the collection of experience of forensic accounting is considered a big challenge (m=3.99). This indicates that each stakeholder uses his knowledge to apply forensic accounting. Even among the known organizations, the cooperation is not effective (m=3.64) and the events concerned with the development of forensic accounting among stakeholders do not exist which increases the gap. Ocansey (2017);Olukowade (2015) have shown that the cooperation among the different parties

interested in fighting financial and economic crimes is very important to facilitate the usage of forensic accounting.

5.0 Conclusions and Recommendations

The objective of this research is to investigate the challenges that face the application and development of forensic accounting in Nigeria. The questionnaire was used as a tool to collect data. The auditors were the respondents of the distributed questionnaire. The limitations of this research were the lack of including all parties that should be covered in another research. The results of this research showed that there is a high gap facing the development and wide application of forensic accounting in Nigeria. The first challenge was related to the scattered experience which makes it difficult to facilitate the development of tools and techniques to apply. The results showed that the organizations work separately that the accumulative experience that is considered the base to develop the forensic accounting is lost. The results also showed that the interest in technology application is very low due to the lack of technology, the high prices, and the absence of specialized trainers. Also, the results showed that the local IT companies' interest is very low to develop software that helps in the application of forensic accounting.

Facing huge floods will minimize the individual ability to resist. The lack of organized efforts to face the high number of fraud crimes in Nigeria will make it a challenge to apply forensic accounting in a way that minimizes financial crimes. The distribution and wide variety of financial crimes both in public and private sectors call for increasing the trained staff to apply forensic accounting which will be impossible in the short run.

The accounting staff should be trained on the application of enterprises' financial crimes and individuals' financial crimes too. The control will require much effort to organize the stakeholder efforts to facilitate the control. The study recommended forensic accountants should enhance their analytical capabilities, integrate AI and machine learning tools, and work with cybersecurity experts. Regulatory bodies should also implement strict compliance frameworks to check financial fraud in Nigeria.

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