



Forensic Auditing Skills and Financial Reporting Quality of Insurance Companies in Nigeria

¹Kamaluddeen Funsho Adisa IBRAHIM*, ²Sylvester Onyekachi ADEMU, ³Chioma Celina OJEMBE, ⁴Chinwe Genevive ONUOHA

^{1,2,3,4} Department of Accounting; University of Abuja, Nigeria.

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*Corresponding author: **Kamaluddeen Funsho Adisa IBRAHIM**

Department of Accounting; University of Abuja, Nigeria.

Abstract

This study examined the effect of forensic auditing skills on Financial Reporting Quality (FRQ) of listed insurance companies in Nigeria. A survey research design was employed for this investigation. The population comprises of all the certified forensic accountants in Nigeria as of 31st December, 2022. The study's sample size was determined using Taro Yamane formula. The researcher employed a simple random sampling to select 359 forensic experts. The primary data were gathered from the designed questionnaire that was administered to the respondents. Generalized Linear Model (GLM) regression with the aid of statistical package (STATA 14) was employed to analyze the collected data. The independent variables were diagnosed with normality and multicollinearity tests. The results of GLM regression reveal that fraud prevention, detection and deterrence skills, litigation mediation and arbitration skills, information technology skills, and Insurance loss analytical proficiency skills have a positive significant relationship with financial reporting quality of insurance companies in Nigeria. The researcher recommends that policymakers should encourage insurance companies in Nigeria to invest in training and development programs to locally acquire fraud prevention, detection, and deterrence skills. It also recommends that policymakers should encourage insurance companies in Nigeria to collaborate with international experts, law firms, and institutions specializing in litigation mediation and arbitration. Finally, policymakers should consider updating financial reporting standards to include specific requirements related to loss analysis and reporting.

Keywords: Forensic Auditing Skills, Financial Reporting Quality, Fraud, litigation, mediation, Information technology skills.

1.0. Introduction

1.1 Background to the Study

Forensic audit can be defined as the application of accounting, auditing, and investigative mindset to the review of an organization's financial records with the goal of extracting evidence that can be utilized in a court of law or other legal procedure (Ibrahim & Ademu, 2024). Forensic auditing is vital for ensuring the accuracy and integrity of financial reports, especially in the complex and regulation-heavy Nigerian insurance industry, which must balance international standards with local requirements. As scholars such as Adeyemi (2019) and Okenwa (2020) have noted, ensuring the financial reporting quality (FRQ) of insurance companies in Nigeria requires not only a deep understanding of accounting principles but also the specialized skills of forensic auditors.

Traditional auditing methods fell short in detecting complex fraud, highlighting the need for forensic auditing skills. Olofinsola (2017) and Adegbite (2015) stress that these skills, combining investigation and data analytics, empower auditors to uncover hidden financial misconduct, particularly in the insurance sector. Forensic auditing skills represent a proactive shift in auditing, addressing modern financial complexities. Building on Olofinsola (2017) and Adefisan (2018), this study examines their relevance in Nigeria's complex insurance sector.

In Nigeria's evolving regulatory landscape, collaboration between forensic auditors and regulators like the FRCN and NAICOM is essential for promoting accountability and improving FRQ. The Nigerian insurance industry operates amid complex regulations and stakeholder expectations. With growing regulatory scrutiny and demands for transparency, forensic auditing skills are crucial to enhancing FRQ in Nigeria's insurance sector. This synergy promises greater accountability, resilience, and investor confidence. Forensic auditing skills are crucial for enhancing financial transparency in Nigeria's insurance sector, where complex accounting practices demand more than regulatory compliance. Izedonmi (2018) and Adeyemi (2019) emphasize that these skills help ensure data integrity and protect stakeholders' interests.

The digital age introduced new forms of financial fraud, prompting auditors to develop skills in data analysis and anomaly detection. Regulatory frameworks, such as the Sarbanes-Oxley Act, emphasized stronger fraud prevention and accountability in financial reporting. Adeyemi (2019) highlights forensic auditors' expertise in data analytics and investigations as key to meeting regulatory standards.

Inspired by Adebisi (2020), this study explores how forensic auditing skills enhance both the accuracy and reliability of financial reporting.

1.2 Statement of the Problem

High-quality financial reporting is vital for corporate governance and investor confidence, especially in Nigeria's complex insurance industry. Due to intricate transactions and unique accounting practices, specialized forensic auditing skills are essential to detect fraud and ensure transparency. Albrecht and Zimbelman (2019) stress the widespread nature of occupational fraud and the key role of forensic auditing in its prevention. The Mediatrix Scam (Okafor, 2017) highlights the need for specialized forensic skills to safeguard financial reporting in Nigeria's insurance sector.

KPMG Nigeria (2018) reveals that traditional auditing falls short in detecting complex fraud, especially in the insurance sector. This underscores the need for advanced forensic techniques. Ojo (2017) emphasizes that forensic auditing is key to managing financial reporting risks and ensuring compliance with strict regulations like those from NAICOM. Ngai et al. (2019) highlight the growing importance of integrating technology with forensic auditing to effectively address the challenges of digital financial transactions and enhance fraud detection in an increasingly electronic financial landscape.

This study addresses the limited research on forensic auditing in Nigeria's insurance sector by examining how specific forensic auditing skills affect FRQ. It focuses on the impact of locally acquired fraud prevention, detection, and deterrence skills; foreign litigation, mediation, and arbitration skills; IT skills; and forensic insurance loss analysis on the FRQ of listed insurance companies in Nigeria.

1.3 Objectives of the Study

The main objective of this study is to investigate the effect of forensic auditing skills on the FRQ of insurance companies in Nigeria. The study also seeks to achieve the following specific objectives:

- i. To evaluate the influence of locally acquired fraud prevention, detection and deterrence skills on FRQ of insurance companies in Nigeria
- ii. To investigate the effect of foreign acquired litigation mediation and arbitration skills on FRQ of insurance companies in Nigeria.
- iii. To examine the extent to which IT skill affects the FRQ of Insurance Companies in Nigeria
- iv. To assess the extent of relationships between insurance loss analytical proficiency skills and FRQ of insurance companies in Nigeria.

1.4 Research Hypotheses

The following hypotheses are formulated to guide the conduct of this research:

Ho1: Locally acquired fraud prevention, detection and deterrence skills do not significantly influence FRQ of insurance companies in Nigeria.

Ho2: Foreign acquired litigation mediation and arbitration skills do not significantly affect FRQ of insurance companies in Nigeria.

Ho3: IT skill does not have significant effect on FRQ of insurance companies in Nigeria.

Ho4: There is no significant relationship between forensic insurance loss analytical proficiency claim and FRQ of insurance companies in Nigeria.

1.5 Significance of the Study

The findings from this study would be most relevant to investors, regulators, academia and the public at large. The study highlights the broad impact of forensic auditing skills on improving FRQ in Nigerian insurance companies. For investors, it enhances trust in financial statements. Regulators such as Financial Reporting Council of Nigeria (FRCN) and National Insurance Commission (NAICOM), they can use the findings to strengthen their oversight functions. For

Academicians, it supports the development of forensic auditing as a specialized field in Nigeria. Public awareness of forensic auditors' roles is also improved. Overall, the study promotes greater transparency, accountability, and sustainable growth in the financial sector.

1.6 Scope of the Study

This study examines the impact of forensic auditing skills on the FRQ of Nigerian insurance companies. It focuses on certified forensic accountants in Nigeria as of December 31, 2022, from major professional bodies. Using purposive sampling and the Taro Yamane formula, a sample of 359 accountants was selected from a population of 3,509. The study is nationwide in scope and limited to the period of data collection.

1.7 Organization of the Study

The study is organized into five sections: While section one deals with Introduction which covers the background, problem statement, research questions, objectives, hypotheses, scope, significance, and study plan. Section two addresses Literature Review which is divided into conceptual issues, theoretical review, empirical review, and conceptual model. Section three succinctly addresses the methodology. This details research design, population, sampling techniques, data sources, analysis methods, and model specification. Section four reports, and discourses data analysis. This presents and discusses data the results and findings. Section five is on conclusion. This last section summarizes the study, offers conclusions, recommendations, study limitations, and suggestions for future research.

2.0 Literature Review

2.1 Conceptual Review

Since this explores various expert perspectives on forensic auditing, highlighting its role in promoting compliance, uncovering fraud, and ensuring financial integrity. This aspect considers the relevant concepts of the variables employed in study, which are:

2.1.1 Forensic Auditing Skills

Rittenberg (2020) defines forensic auditing as the application of accounting, auditing, and investigative skills to detect discrepancies, mitigate risks, and uphold ethical governance. Pickett (2014) asserts that it involves analyzing financial and non-financial evidence, often in collaboration with legal, Industrial Training (IT), and law enforcement professionals. According to Wells and Wu (2019); Sirkova (2018), the key skills include attention to detail, knowledge of financial standards, ethical conduct, and the ability to trace digital and transactional footprints. In Nigeria's insurance sector therefore, these skills are vital for enhancing transparency, accountability, and fraud detection.

2.1.2 Fraud Prevention, Detection and Deterrence Skills

These key fraud-related skills are essential for maintaining financial integrity, particularly in the insurance industry (Okpala, 2019): Fraud prevention skills focus on proactive strategies like strong internal controls, ethical culture, and governance to reduce opportunities for misconduct (Obazee et al., 2020). Fraud detection skills involve analyzing financial data and identifying anomalies or red flags using advanced tools, crucial for accurate insurance reporting (Adeleke, 2017).

Fraud deterrence skills aim to discourage fraud by promoting ethical behavior and emphasizing consequences (Ajibolade et al., 2018; Aladejebi et al., 2021; Adebisi et al., 2019; Josiah et al, 2012). Fraud investigative skills combine financial expertise, data analytics, and psychological insight to uncover and analyze fraudulent activities. These skills are especially vital in the complex and fraud-prone insurance sector (Adeyemi, 2019; Wells, 2019). Overall, the integration of these skills; prevention, detection, deterrence, and investigation, forms a comprehensive defense against financial fraud.

2.1.3 Litigation, Mediation and Arbitration Skills

Forensic litigation support skills involve analyzing financial data, reconstructing transactions, and presenting expert testimony to assist legal teams in cases like fraud, contract breaches, and valuation disputes. These skills help companies build strong legal strategies, quantify damages, and support regulatory compliance (Nigrini, 2011; Singleton, 2010).

Mediation and arbitration skills focus on effective communication, active listening, and conflict resolution. Forensic auditors use these skills to foster collaboration among stakeholders, clarify financial issues, and resolve disputes constructively (Adeyemi et al., 2019; Izedonmi et al., 2018).

Together, these skills strengthen transparency, trust, and credibility in financial reporting, while helping insurance companies manage legal risks and maintain stakeholder confidence.

2.1.4 Concept of Information Technology Skill

This text highlights the critical role of IT skills in modern forensic auditing, especially in the context of Nigeria's digitizing insurance industry: IT skills enable forensic auditors to analyze digital financial data, detect fraud patterns, and reconstruct transactions using specialized software, data mining, and predictive analytics (Smith, 2017; Olufemi, 2017).

Digital forensics is a key component, allowing auditors to trace electronic evidence, recover deleted data, and build accurate timelines of financial activities (Salami et al., 2019; Ezejiofor, 2020). IT proficiency also enhances auditors' ability to evaluate cyber security measures and protect against cyber threats. As financial operations move online, auditors with strong IT skills can effectively investigate digital records, support data integrity, and add depth to traditional auditing methods (Akindele, 2021; Osisioma, 2021).

In essence, IT skills empower forensic auditors to uncover digital financial fraud with greater precision and efficiency.

2.1.5: Insurance loss Analytical Proficiency Skill

Insurance loss analytical proficiency refers to the ability of insurance professionals to analyze and interpret data related to claims and losses (Smith et al., 2017). This skill set includes data analysis, risk assessment, statistical modeling, and financial forecasting. It is essential for accurate claims assessment, fraud detection, strategic underwriting, and regulatory compliance (Johnson & Brown, 2018). Proficiency in analyzing loss data enables insurers to identify trends, predict risks, set fair premiums, estimate reserves, and enhance overall financial stability (Thompson et al., 2020). In the Nigerian context, these skills help tackle fraud, improve data quality, and support digital transformation through advanced analytics and personalized insurance solutions (Okoye & Onwuegbuzie, 2019).

2.1.6 Financial Reporting Quality

Dechow and Dichev (2002) underscore that FRQ comprises a spectrum of attributes that collectively ensure the integrity of financial information.

FRQ is defined by key attributes such as accuracy, completeness, and transparency, which ensure that financial statements reflect true and comprehensive information. These qualities help stakeholders understand a company's financial position and reduce information asymmetry, fostering investor confidence and efficient resource allocation (Francis et al., 2004; McNichols, 2002).

In the Nigerian insurance industry, where complex transactions and actuarial estimates are common, high-quality financial reporting is especially vital for accurate liability estimation, investment valuation, and regulatory compliance. The IFRS framework guides global financial reporting, emphasizing relevance, reliability, and professional judgment in the absence of specific standards (Owusu-Ansah, 2000; Owusu-Ansah & Leventis, 2006). However, earnings management threatens reporting quality by distorting financial statements and misleading stakeholders. Auditors play a crucial role in maintaining reporting integrity through forensic analysis and vigilance against manipulation (DeFond & Lennox, 2017).

2.2 Theoretical Review

Under this section, theories considered relevant to the study are reviewed. These are theories of agency, and stakeholders.

2.2.1 Stakeholder theory

Stakeholder theory, originally propounded by R. Edward Freeman in the 1980s, provides a framework for understanding the diverse relationships organizations have with various parties beyond shareholders, such as employees, customers, regulators, and communities. It emphasizes that businesses must consider the interests of all stakeholders in decision-making. This is especially relevant for insurance companies, as it highlights how stakeholder influence affects FRQ and transparency.

The study's emphasis on forensic auditing skills aligns with stakeholder theory by highlighting the importance of accountability to diverse stakeholders in the insurance industry. Through enhanced financial scrutiny, forensic auditing helps improve transparency and credibility, thereby strengthening stakeholder trust, an essential factor in maintaining confidence in insurance companies. Gavrea et al. (2011) applied stakeholder theory to investigate the perceptions of stakeholders towards insurance companies' social responsibility efforts. This researcher demonstrated how stakeholder theory offers insights into the multifaceted relationships that shape organizational behaviour.

While stakeholder theory is valuable, it has limitations. It can be unclear in prioritizing stakeholder interests, leading to potential conflicts and indecision. Additionally, identifying and defining stakeholders and their specific interests, especially in the Nigerian insurance industry, can be complex and challenging.

2.2.2 Agency Theory

Agency theory, formulated by Jensen and Meckling (1976), examines the conflicts that arise in principal-agent relationships, where decision-making is delegated to agents. Developed in 1976, it highlights issues like moral hazard, adverse selection, and information asymmetry. In the context of this study, agency theory is relevant for understanding potential conflicts between shareholders and managers in Nigerian insurance companies. Forensic auditing skills serve as tools to mitigate these conflicts by enhancing transparency and aligning managerial actions with shareholder interests, thereby improving FRQ.

However, agency theory is not without limitations. Critics argue that it oversimplifies the complexities of human behavior, assuming that agents are solely motivated by self-interest. It also neglects relational aspects that can influence principal-agent interactions. Moreover, the effectiveness of mechanisms to align interests, such as monitoring or incentives, may vary based on contextual factors, rendering agency theory's predictions less universal.

2.3 Review of Empirical Studies

Ibrahim and Ademu (2024)'s study on 'Behavioural Intention to Use Forensic Audit Services for Enhanced FRQ of North-Central Universities in Nigeria' assessed how forensic auditing skills impact the FRQ of listed insurance companies in Nigeria. Using survey data from 359 certified forensic accountants, analyzed via Generalized Linear Model regression (STATA 14), the findings showed that skills in fraud prevention, litigation mediation, IT, and insurance loss analysis significantly enhance FRQ. The study recommends investment in local training, international collaboration, and updates to financial reporting standards.

Oyedokun, et al (2018) investigated how forensic accounting techniques (FAT) influence the integrity of financial statements (IFS) in Nigeria. Using a survey of 321 professionals from accountancy bodies, the study applied multiple regression analysis and found that FAT—including fraud prevention, forensic audits, litigation skills, and computer-assisted reviews—positively affect IFS. The techniques explained 23% of the variation in financial statement integrity, with all components showing statistical significance. The authors recommend that banks establish forensic accounting units to enhance internal controls and ensure financial statement reliability.

Gbegi and Adebisi (2014) studied the impact of forensic accounting skills and techniques on fraud investigation in Nigeria's public sector, focusing on staff from EFCC, ICPC, and CCB. Using both primary (questionnaires) and secondary data, analyzed through ANOVA and time series via SPSS, they found that forensic accounting significantly aids in detecting and reducing fraud. They recommended establishing forensic units and laboratories within anti-corruption agencies and institutionalizing forensic accounting across all government ministries and departments to strengthen internal controls and improve performance.

Solomon et al. (2021) investigated the impact of forensic audit skills on audit reports and organizational productivity in Akwa Ibom State, focusing on Champion Breweries Plc and Akwa Ibom Water Company. Using a descriptive survey design and a sample of 351 staff, data were collected through a validated questionnaire and analyzed using regression. The study found that data mining and computer-assisted audit techniques significantly enhance organizational productivity. It concluded that forensic audit skills are essential for improving audit quality and recommended that organizations ensure auditors apply these skills to boost performance.

Agbata et al. (2022) investigated the impact of forensic auditing on fraud control at the EFCC Enugu State, Nigeria, focusing on forensic investigative, litigation, and arbitration skills. Using a survey design and data from all 35 permanent EFCC staff, the study employed Kendall's Tau analysis. Findings showed that all three forensic skills significantly enhance fraud detection. The authors recommend that forensic auditors leverage investigative skills to strengthen public trust in the commission.

Adeyemi (2018) examined the link between forensic accounting skills and organizational performance in Nigerian companies using OLS regression. The study found significant positive relationships between skills like data analysis, investigative techniques, and fraud risk assessment with performance indicators such as profitability and efficiency. It emphasizes the value of forensic expertise in enhancing business growth and reducing financial risks.

Nwosu (2019) evaluated the effectiveness of forensic accounting in detecting financial statement fraud in Nigerian corporations. Employing a generalized linear modeling (GLM) approach, the study examines the predictive power of forensic accounting indicators, such as abnormal accruals, earnings quality metrics, and corporate governance variables, in identifying instances of financial misreporting. The results demonstrate the significance of incorporating GLM techniques into forensic accounting practices to enhance the accuracy and reliability of fraud detection outcomes. The findings have implications for regulatory bodies and auditing firms seeking to strengthen financial reporting integrity and investor confidence in Nigerian capital markets.

Okoli (2020) investigated the impact of forensic accounting techniques on fraud detection in the Nigerian banking sector. Utilizing multiple regression analysis, the research analyzes data collected from a sample of banks to assess the

relationship between forensic accounting practices and fraud detection capabilities. The findings reveal significant positive associations between specific forensic accounting techniques, such as data analytics, investigative procedures, and regulatory compliance, and the effectiveness of fraud detection mechanisms in banking institutions. The study provides valuable insights for policymakers and practitioners seeking to enhance fraud prevention strategies in the Nigerian banking industry.

Babalola (2018) explored the effectiveness of forensic accounting skills in investigating financial crimes in Nigeria. Utilizing an ordinary least squares (OLS) regression analysis approach, the study evaluates the impact of forensic accounting competencies, such as digital forensics expertise and financial statement analysis proficiency, on the outcomes of financial crime investigations. The findings reveal significant correlations between specific forensic accounting skills and the successful resolution of financial misconduct cases, highlighting the critical role of specialized training and technical knowledge in forensic investigations. The study provides insights for law enforcement agencies, regulatory bodies, and forensic practitioners seeking to enhance their capabilities in combating financial crimes and promoting accountability in the Nigerian financial sector.

Fashola and Adebayo (2023) conducted a study titled "Assessing the Impact of Forensic Accounting on Corporate Governance: Evidence from Nigerian Listed Companies." The research aimed to investigate how the integration of forensic accounting practices influences corporate governance mechanisms and ethical standards in Nigerian publicly-listed companies. Employing a quantitative research design, the researchers collected survey data from board members, audit committee chairs, and internal auditors of selected listed firms. The data were analyzed using descriptive statistics and regression analysis to assess the relationship between forensic accounting implementation and corporate governance outcomes. The study findings revealed a positive association between the adoption of forensic accounting techniques and improvements in transparency, accountability, and board oversight functions. The researchers recommended that Nigerian listed companies prioritize the implementation of forensic accounting practices as part of their corporate governance framework to enhance stakeholder trust and mitigate financial misconduct.

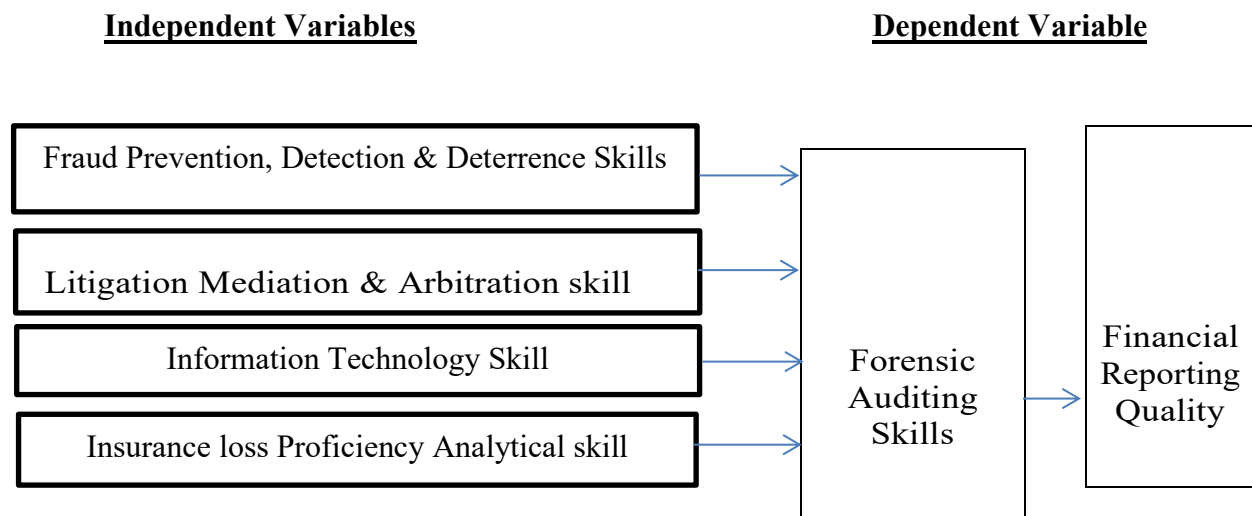
Adeleke (2020) examined the impact of forensic accounting practices on corporate governance effectiveness in Nigerian firms. Employing a multiple regression analysis approach, the study analyzes data collected from a sample of publicly-listed companies to assess the relationship between forensic accounting techniques, board composition, and corporate governance mechanisms. The findings reveal significant positive associations between the adoption of forensic accounting procedures, such as fraud risk assessments and internal control enhancements, and the quality of corporate governance practices. The study provides valuable insights for policymakers and corporate leaders aiming to strengthen governance frameworks and mitigate financial misconduct risks in Nigerian organizations.

Joseph (2020) analyzed the impact of forensic accounting investigations on public sector financial crimes in Nigeria, focusing on ICPC activities from 2015–2019. Using chi-square analysis, the study found that forensic accountants achieved more convictions than traditional investigators. Survey responses supported this, with over 78% agreeing that forensic accountants are more effective. The study concludes that forensic accounting significantly enhances the investigation and prosecution of public sector financial crimes.

Mbanugo et al. (2021) examined the use of forensic accounting techniques in detecting financial statement fraud in large-scale businesses in Anambra State, Nigeria. Using survey data and statistical analysis, the study found that net worth and ratio analysis techniques are widely applied and significantly effective in fraud detection. The authors recommend adopting more effective fraud detection methods, as commonly used ones are seen as less effective.

2.4 Theoretical Framework

This study is grounded in both Agency and Stakeholder theories. Agency theory highlights how forensic auditing skills help mitigate principal-agent conflicts by ensuring accurate financial reporting. Stakeholder theory emphasizes the importance of addressing the concerns of all stakeholder groups. Forensic auditing supports both by enhancing transparency and trust.

Figure 2.1: Conceptual Framework

Source: Modified from the works of Izedonmi et al (2018), and Okenwa et al. (2020).

3.0 RESEARCH METHODOLOGY

3.1 Research Design

This study utilized a survey research design as it was deemed suitable for gathering pertinent information from the respondents through the administration of questionnaire.

3.2 Population of the Study

The population comprises of all the certified forensic accountants in Nigeria as of 31st December, 2022 as seen in the table 3.1 below. This encompassing group represents the bodies one can potentially draw samples to gain insights into the study.

Table 3.1 Population of the Study: Professional Forensic Accounting Bodies

S/N	Bodies	Certified Members
1	Institute of Chartered Accountants of Nigeria	666
2	Association of National Accountants of Nigeria	404
3	Institute of Forensic Accountants of Nigeria	912
4	Chartered Institute of Forensic and Certified Fraud Investigators of Nigeria	803
5	Chartered Institute of Forensic and Investigative Professionals in Nigeria	724
	Total	3,509

Source: Official Websites

3.3 Sample Size and Technique

For effective coverage and lower cost, purposive sampling technique was used to select the participating certified forensic accountants. The study used Taro Yamane formula in determining the sample size of this study. The formula for Taro Yamane is stated as $n = \frac{N}{1 + N(e)^2}$

Where:

N is the population size

'e' is the margin error (assume 5%)

1=constant

$e=0.05$, $n = \frac{3509}{1 + 3509(0.05)^2}$; $n = \frac{3509}{1 + 3509(0.0025)}$; $n = \frac{3509}{1 + 8.7725}$; $n = \frac{3509}{9.7725}$;

$n = 359$.

3.4 Sources of Data Collection

The study used primary, the study collected primary data for dependent and independent variables. The primary data were collected through distribution of questionnaire to forensic experts about insurance firms in Nigeria.

3.5 Measurement of Variables

The FRQ serves as the dependent variable in this study, while the independent variables consist of fraud prevention, detection and deterrence skills, litigation mediation and arbitration skills, IT skills and Insurance Loss Analytical Proficiency skills.

3.5.1 Dependent Variable

FRQ serves as dependent variable. FRQ is measured by assessing the indicators of the dependent variables such as understandability, timeliness, comparability, transparent and relevance of the financial report in this study, a Likert scale with five points was used. The scale ranged from "disagree" to "strongly disagree," "neutral," "agree," and "strongly agree," with corresponding scores of 1, 2, 3, 4, and 5, respectively.

The measurement of dependent variables was conducted by the analysis of responses provided by participants in the questionnaire. In order to do regression analysis, the median values of the question items were acquired for the variable. This measurement aligns with the findings of Enofe et al. (2015). (Jerubet et al., 2017).

3.5.2 Independent Variables

The researcher distributed 359 questionnaires and received 325 responses. A five-point Likert scale was used to measure indicators of the independent variables. Median values of responses were calculated for each variable to perform regression analysis. This measurement aligns with the findings of Enofe et al., (2015).

3.6 Model specification

This study adapted the model of Oyedokun et al. (2018). Their original model is stated as follows:

$$IFS = \alpha_0 + \beta_1 FPDDS + \beta_2 FAIIS + \beta_3 LMAS + \beta_4 CARDR + \mu_0 \dots \dots \dots (1)$$

The modified one for this study is as follows:

$$FRQ = \alpha_0 + \beta_1 FPDDS + \beta_2 LMNAS + \beta_3 ITSKILLS + \beta_4 ILAPS + \mu_0 \dots \dots \dots (2)$$

Where:

FRQ= Financial Reporting Quality; FPDDS= Fraud prevention, detection and deterrence skills; LMNAS= litigation mediation and arbitration skills; ITSKILLS= Information technology skills; ILAPS= Insurance loss analytical proficiency skills; β = Coefficient of the independent variables; μ_0 = Error term

3.6.1 Validity Test

The research tools will be reviewed by supervisors and experts to assess face and content validity. Unnecessary items will be removed, and relevant ones added. A pilot study will also be conducted to test the validity and reliability of the questionnaire through pre-test data collection. According to Amir et al. (2021), it is recommended that the pilot test should include a minimum of 10% of the sample size. The study did this task to fulfill the objective of conducting a pre-test, which aims to assess the accuracy and appropriateness of data gathering instruments.

3.6.2 Reliability Test

Reliability test using Cronbach Alpha was performed to measure the internal reliability of the instrument. It was measured using Cronbach alpha criteria. A Cronbach Alpha of values is shown for all the constructs used in this study below:

Table 3.2: Cronbach Alpha

S/NO.	Construct	Cronbach Alpha
1.	Locally acquired fraud prevention, detection & Deterrence skills	0.965
2.	Foreign Acquired Litigation Mediation and Arbitration Skills	0.877
3.	IT Skill	0.863
4.	Insurance Loss Analytical Proficiency Skills	0.958
5.	Financial Reporting Quality	0.846

The Cronbach's alpha results indicate high internal consistency and reliability of the constructs measured. Locally acquired fraud prevention, detection and deterrence skills, along with insurance loss analytical proficiency, showed very high reliability ($\alpha > 0.9$). Other constructs—such as foreign-acquired litigation, IT skills, and FRQ—also demonstrated good reliability ($\alpha > 0.8$). Overall, the values suggest that the survey items are consistent and valid measures of their respective concepts.

3.7 Method of Data Analysis

The study employed both descriptive and inferential statistics. The descriptive statistics which include minimum, maximum, mean, and standard deviation statistics was well presented in tables. The Generalized Linear Model Regression was used to test the hypothesis because it permits non-normal stochastic and non-linear systematic components (Hardin & Hilbe, 2007). The analysis was done using STATA 14.

4.0 Data Analysis and Interpretations

In this study, primary data were collected through distribution of questionnaire to accounting and finance experts of both audit and accounting departments of the selected sampled insurance firms in Nigeria.

4.1 Descriptive Statistics

These describe and summarize the main features of dataset of the study, such as the mean, standard deviation, minimum, maximum, number of observations among others as revealed in the table 4.1 below:

4.1 Descriptive Statistics

Variables	Mean	Std. Dev.	Max	Min	No. Obs.
FRQ	3.424	4.578	14.66	-16.09	325
FPDDS	4.292	0.551	5	2	325
LMNAS	4.523	0.533	5	3	325
ITSKILLS	4.369	0.575	5	2	325
ILAPS	4.431	0.499	5	4	325

Source: Output generated from STATA 14 Software.

The characteristics and details of the dependent and explanatory variables, including their minimum, maximum, mean, and standard deviation values, are summarized and shown in table 4.1 above. The FRQ ranges from -16.08922 to 14.65959. The fraud prevention, detection, and deterrence skills vary from 2 to 5, with a standard deviation of 0.5512224. The mean value of these skills is 4.292308.

The data in table 4.1 shows that the insurance firms in the sample had an average score of 4.523077 for their litigation mediation and arbitration abilities, with a standard deviation of 0.5334936. The minimum and maximum values reported are 3 and 5, respectively. Moreover, Table 4.1 shows that the average of IT skills is 4.369231, with a standard deviation of 0.5747073. The minimum and maximum values reported are 2 and 5, respectively. The insurance loss analytical proficiency skills have a range of values from 4 to 5, with an average value of 4.430769 and a standard deviation of 0.4990375.

4.2 Correlation Matrix

The correlation matrix assesses the strength and direction of relationships between variables, highlighting associations among both dependent and independent variables. It helps identify strong correlations as shown in table 4.2 below:

Table 4.2: Correlation Matrix of Dependent and Independent Variables

Variables	FRQ	FPDDS	LMNA S	ITSKILLS	ILAPS
FRQ	1				
FPDDS	0.363	1			
LMNAS	0.4736	0.3752	1		
ITSKILLS	0.4636	0.2459	0.2266	1	
ILAPS	0.0793	-0.0105	-0.0379	0.0905	1

Source: Output generated from STATA 14 Software.

As indicated on table 4.2: Correlation Matrix above reveals that Strongest Correlation exists between FRQ and LMNAS (0.4736), followed by moderate positive correlations: FRQ and ITSILLS (0.4636); FPDDS and LMNAS (0.3752); FRQ and FPDDS (0.363); Weak Correlations then exists among ITSKILLS with LMNAS (0.2266) and FPDDS (0.2459). ILAPS shows negligible correlations with all other variables, especially FPDDS (-0.0105) and LMNAS (-0.0379), indicating independence.

A study conducted by Judge et al. (1985) suggests that the correlation between independent variables should not be considered problematic until it exceeds a certain threshold of 0.80 or 0.90. Overall, the table reflects varying degrees of association, with no signs of multicollinearity.

4.3 Diagnostic Test

Diagnostic test is made to make sure that generalised linear model regression assumptions are not violated. The study therefore tests for multicollinearity and heteroskedasticity.

4.3.1 Multicollinearity Test

Multicollinearity was diagnosed in order to be sure that there was no multicollinearity among the independent variables.

Table 4.3.1: Results of Multicollinearity Test

Variables	VIF	Tolerance
FPDDS	1.20	0.831782
LMNAS	1.19	0.837758
ITSKILLS	1.10	0.908853
ILAPS	1.01	0.988002
Mean VIF	1.13	

Source: Output generated from STATA 14 Software

Table 4.3 clearly indicates that the tolerance value falls within the range of 0.831782 to 0.988002, above the threshold value of 0.10. The maximum VIF value is 1.20, which is below the threshold of 10 (Ibrahim & Ademu, 2021; Anas et al.2018; Gujarati & Porter, 2009). Given that all VIF values are below 10, there is no indication of multicollinearity among the research variables. Therefore, the independent variables in this research do not seem to be significantly influenced by multicollinearity, allowing for a conventional interpretation of the regression coefficient.

4.3.2 Heteroskedasticity Test

The research conducted a heteroskedasticity test to assess one of the assumptions of generalised linear model regression, which requires that the errors have a constant variance. Errors that do not exhibit a constant variance are referred to be heteroskedastic (Gujarati & Porter 2009). The Breusch-Pagan\Cook-Weisberg test was used to examine the existence of heteroskedasticity. According to the findings in table 4.3.2, the p-value is higher than 5%. Consequently, there is no empirical support for the existence of heteroskedasticity.

Table 4.3.2: Breusch-Pagan / Cook-Weisbergtest for Heteroskedasticity

Test	Chi-square	Prob>chi2
Breusch-Pagan / Cook-Weisberg	0.3944	0.73

Source: The output produced by using the STATA 14 software

4.4: Generalized Linear Model Regression

To accomplish the study's goals, generalized linear model regression was employed and the results were presented in the table 4.4.

Table 4.4: Results of Generalized Linear Model Regression

Variables	Coefficient	Std. Error	Z	P-value
FPDDS	0.2630983	0.1941	2.36	0.075
LMNAS	0.6144699	0.1997	3.08	0.002
ITSKILLS	0.5736113	0.1781	3.22	0.001
ILAPS	0.1206708	0.1966	2.61	0.039
(Constant)	-2.964883	-2.16	0.031	-5.66

Source: Output generated using STATA 14 Software.

4.5 Test of Hypotheses

The section presents and discusses the hypotheses testing as stated in chapter one. The regression results that are employed for the test of hypotheses are presented in the Table 4.5 above presents generalized linear model regression results of the dependent variable (fraud prevention, detection and deterrence skills, litigation mediation and arbitration skills, IT skills, and Insurance loss analytical proficiency skills).

Hypothesis One: Locally acquired fraud prevention, detection and deterrence skills do not significantly influence FRQ of insurance companies in Nigeria. From the results of Table 4.5, it can be seen that there is a positive and significant relationship between locally acquired fraud prevention, detection and deterrence skills and FRQ of listed insurance companies in Nigeria at a 10%, but insignificant at 5% level. Therefore, the null hypothesis should be reconsidered.

Hypothesis Two: Foreign acquired litigation mediation and arbitration skills do not significantly affect FRQ of insurance companies in Nigeria. The findings presented in Table 4.5 indicate a statistically significant and positive relationship, at a 1% level of significance, between foreign acquired litigation mediation and arbitration skills and the FRQ of listed insurance companies in Nigeria. It is thus appropriate to reject the null hypothesis.

Hypothesis Three: IT skills do not have significant effect on FRQ of insurance companies in Nigeria. At a significance level of 1%, the results presented in Table 4.5 indicate that there is a positive and statistically significant relationship between the FRQ of listed insurance companies in Nigeria and their IT skills. Therefore, it is appropriate to reject the null hypothesis.

Hypothesis Four: There is no significant relationship between the insurance loss analytical proficiency skills and FRQ of insurance companies in Nigeria. The findings displayed in Table 4.5 are statistically significant and positive at the 5% level of significance. They suggest that insurance loss analytical proficiency skills have a positive relationship with listed insurance companies in Nigeria. Hence, it is deemed suitable to reject the null hypothesis.

4.6 Discussion of Findings

4.6.1 Locally acquired fraud prevention, detection and deterrence skills and FRQ

According to GLM results, the locally acquired fraud prevention, detection and deterrence skills has a positive coefficient value of 0.2630983 and a p-value of 0.075, which is lower than the 10% significance level, as shown in Table 4.5. This shows that there is positive significant relationship between locally acquired fraud prevention, detection and deterrence skills and FRQ of insurance companies in Nigeria. This means that professionals equipped with these skills are better able to identify and understand the unique types of fraud that might occur in the Nigerian context, leading to more effective prevention and detection strategies. Companies with robust local expertise in fraud management are better positioned to identify and mitigate risks associated with financial fraud. This analysis confirms the conclusion of Oyedokun and Dada (2019) who found that locally acquired fraud prevention, detection and deterrence skills have positive significant impact on FRQ.

4.6.2 Foreign acquired litigation mediation and arbitration skills and FRQ

The results of GLM regression analysis from table 4.5 showed that the coefficient of foreign acquired litigation mediation and arbitration skills is 0.6144699 while significant value (p-value) is 0.002 which is lower than 1% level of significant. This means that every unit increase in foreign acquired litigation mediation and arbitration skills leads to 0.6144699 increase in FRQ of insurance companies in Nigeria. This however, showed that there is positive significant relationship between foreign acquired litigation mediation and arbitration skills and FRQ of insurance companies in Nigeria. This means that foreign-acquired mediation and arbitration skills often come with an understanding of international best practices and legal frameworks. Insurance companies that employ individuals with these skills are more likely to adhere to international accounting and reporting standards, resulting in higher-quality financial reports. This result validates the conclusions reached by Oyedokun and Dada (2019).

4.6.3 Information Technology Skills and FRQ

In table 4.5, the findings from GLM regression indicate that IT skills have a positive coefficient of 0.5736113 with a p-value of 0.001 which is lower than the 1% level of significance. This result shows that significant relationship exist between the IT skills and the FRQ of insurance companies in Nigeria. This implies that IT skills facilitate the integration of financial data from various sources within the organization, providing a holistic view of the company's financial performance. IT skills enable insurance companies to automate financial data collection, processing, and reporting. Automated systems reduce the risk of manual errors and ensure that financial reports are based on accurate and reliable data. This result supports the findings of Oyedokun and Dada (2019) who found positive relationship between IT skills and FRQ.

4.6.4 Insurance Loss Analytical Proficiency Skills and FRQ

The insurance loss analytical proficiency skills have a positive coefficient value of 0.1206708 and a p-value of 0.039, which is lower than the 5% significance level, as shown from GLM regression in Table 4.5. This indicates that the insurance loss analytical proficiency skills have significant influence with FRQ of insurance companies in Nigeria. This indicates that insurance loss analytical proficiency skills enable insurance companies to accurately estimate and set aside reserves for potential claims and losses. When these estimates are precise, financial reports reflect the true financial condition of the company, contributing to higher reporting quality. Insurance loss analytical skills facilitate a better understanding of risks, enabling insurance companies to implement effective risk management strategies. When risks are properly managed, FRQ is enhanced as it reflects the company's ability to mitigate potential losses. The result of this study agrees the findings of Oyedokun and Dada (2019).

5.0 Summary, Conclusion and Recommendations

5.1 Summary

This study investigated how forensic auditing skills impact the FRQ of Nigerian insurance companies. Using purposive sampling, data were collected from 325 certified forensic accountants. Key skills examined included fraud prevention, litigation mediation, IT proficiency, and insurance loss analysis. A Generalized Linear Model (GLM) regression analysis (via STATA 14) showed that all these skills positively and significantly influence FRQ.

5.2 Conclusion

The study concludes that various forensic auditing skills positively and significantly enhance the FRQ of insurance companies in Nigeria. Specifically, expertise in fraud prevention aids in identifying and mitigating fraudulent activities; litigation, mediation, and arbitration skills promote compliance with global standards; IT skills enable accurate, automated financial data processing; and insurance loss analytical proficiency improves risk management and accurate financial estimations. Collectively, these skills contribute to more reliable and high-quality financial reporting.

5.3 Recommendations

The study's results lead to the following recommendations that insurance companies in Nigeria should:

- i. Invest in training and development programs to locally acquire fraud prevention, detection, and deterrence skills. This could involve collaborating with educational institutions and professional bodies to design relevant training courses and certifications.
- ii. Collaborate with international experts and institutions to enhance litigation, mediation, and arbitration skills through training and knowledge sharing. Policymakers should also integrate dispute resolution skill requirements into insurance regulations.
- iii. Be encouraged and supported by Policymakers in investing in IT education and training through partnerships with educational institutions. It also recommends updating financial reporting standards to include IT systems, data security, and governance to strengthen reporting quality.
- iv. Be considered by Policymakers in updating their financial reporting standards to include clear requirements for loss analysis and reporting. It also suggests offering incentives—such as tax breaks or grants—to encourage insurance companies to invest in loss analytical proficiency skills, ensuring more accurate and consistent financial reporting.

5.4 Limitations to the Study

The selection of insurance companies included in the study may not be entirely representative of the entire industry. Biases in sample selection can affect the study's generalizability. Factors beyond forensic auditing skills, such as changes in regulatory requirements, economic conditions, or competitive pressures, may also influence FRQ. Measuring the proficiency of forensic auditing skills accurately can be challenging. The study may rely on self-reported information or proxy variables, which may not fully represent the skills of individuals involved.

5.5 Suggestion for Further Studies

The study recommends further research may:

Conduct comparative analyses across sectors like banking, manufacturing, and telecoms to explore industry-specific impacts of forensic auditing skills.

Compare Nigeria's insurance sector with those in similar economies to assess cultural or regulatory influences.

Examine how changes in forensic auditing and financial reporting regulations affect reporting quality in the insurance industry.

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