Forensic Audit Technology and Audit Report Quality of Selected Audit Firms in Nigeria

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Abstract
The resultant effect of adapting forensic technology with the intention of improving audit approach for the cause of redeeming the public trust in auditors' reports which has been on the decline is the focus of the study. Hence, the influence of data analytics and textual analytics as forensic audit technology on the audit report quality of selected audit firms in Nigeria was examined. Using a survey research design, a structured five-point Likert scale questionnaire was employed and 106 useful questionnaires were retrieved from the monkey survey on experienced and professional auditors from the 281 registered auditing firms with ICAN as of January 1st of 2022. The census sampling technique was adopted and the obtained response was analyzed using ordinal logistic regression. The findings show that data analytics have a positive and significant effect on audit report quality while textual analysis has negative and significant effect on the audit report quality of selected audit firms. It was then concluded that the usage of data analysis techniques in gathering audit evidence improves the quality of reports issued by audit firms in Nigeria. It is recommended that audit firms should embed forensic technology in audit engagement to sharpen their opinion through proper audit evidence and in turn favorably influence audit quality.

1. Introduction

In this present era of rapid technological improvement, auditing with dependable computer forensic skills and a demonstrated sense of independence is an indispensable tool for auditors to detect significant misstatements and errors that could have gone unnoticed thereby reducing the quality of audit reports (Ugochukwu & Okenwa, 2021). The approach of auditing has not profoundly changed in many years. However, the audit profession in advanced countries has started adapting to the new technologies available to carry out auditing activities (Olivier et al., 2018). In every organization globally, the auditors' report dictates the reliability of the corporate annual report and in lieu of this, every tool that will ensure the usefulness of information made available to various users must be ensured. Despite the differences in the functions of external auditing and forensic audit, the importance of forensic audits is steadily increasing, and technology used in this specialist service can be adopted by audit firms when carrying out independent audits (Knežević, 2015).

Globally, public trust in auditors' reports is on the decline (Gbegi et al., 2018). This could be related to the tragic collapses of enterprises that were believed to be doing well after external auditors reported on their financial well-being. This also calls to question the reliability of the financial reporting quality of some firms despite acclaimed adherence to financial reporting standards in numerous jurisdictions. The reason for this failure was that the audit report that is meant to add credibility to financial reports has shortcomings that can adversely affect investors (Okenwa & Nwoye, 2021). It is worrisome that there is a diminishing in the quality of audit reports because this has not only served as a threat to audit practice but to the accounting profession which has failed to update and acquire needed auditing skills that will enable auditors to achieve their audit objective with ease.

The quality and reliability of audit reports are reposed by the expertise and proficiency employed in performing the statutory audit function by the auditors (Chukwu et al., 2019). It is however believed that engaging forensic technology in the audit process will improve the quality standard of the auditor's report issued by the audit firms. Due to the volume of records kept by the firm, ranging from financial statements to sustainability reports, engaging data analytics as part of audit techniques will enable auditors to search for irregularities and provide more analytical reports (Akpan & Akpan, 2021). Also, there is less likelihood that fraud and material misstatement will go unnoticed (Gandía & Huguet, 2021). With the expansion of audit techniques to the use of digital forensic audit technology as textual analysis, there is significant potential in improving the audit report quality as it avails auditors the use of computer technology in the procedure of examining evidence using technological and scientific methods, and also creates and evaluates ideas that can be used in the court to answer inquiries in the case of litigation.

Problem statement

Research into the role of computer forensic technology in the audit quality of firms in emerging markets is scarce and generally unexplored. Previous studies mainly concentrate on audit firms' characteristics such as size, auditor's expertise, auditors' skepticism, and audit fee as

determinants of audit report quality (Amahalu, 2017; Amahalu et al*.,* 2018; Fujianti & Satria, 2020; Jayeola et al., 2020; Salehi et al., 2019; Subianto, 2018; Sulaiman et al*.,* 2018).

It was also observed that in the domain of accounting and auditing, textual analysis is still an emerging area as the majority of earlier research on textual analysis's application to accounting relied on news and the Internet as its information sources, linking these sources of information to several capital market indicators (Li et al., 2014; Loughran & McDonald, 2016; Mo et al., 2016;). This study seeks to fill this gap in literature as it explores the techniques of textual analysis and data analytics in relation to audit report quality and to assess the potential benefits of applying computer forensics to auditing.

Study justification
This research is crucial because it will result in major improvements in auditing and will also inform auditors on how they can enhance the quality of their reports, particularly concerning their investigative abilities and possible use in legal proceedings. This study will also be useful to various groups of stakeholders, particularly those who rely on auditors' reports to make informed economic decisions and those who provide financial advisory services. Most importantly, the management of companies will know the requirements for auditing engagement and whether the auditor to be appointed can provide a quality report and add credibility to the financial reports. The overall objective of the study is to assess how forensic audit technology affects the audit report quality of selected audit firms in Nigeria. Specifically, the study examines the effect of data analytics on audit report quality and as well assesses the effect of textual analysis on the audit report quality of selected audit firms in Nigeria.

2. Hypothesis Development and Literature Review
2.1 Theoretical underpinning
2.1.1 Credibility Theory
The credibility theory is explained in the study of Hayes, et al. (2005) as an audit service theory. The theory assumes that the primary function of an audit is the increased credibility it provides to the financial statements cum the public perception of auditing. Accordingly, the general public is more likely to trust and embrace reports provided by those who are independent, such as external auditors, because higher credibility has a greater influence on their trust in the quality of financial reports. (Umeogu, 2012).

The study is hinged on the theory because the trustworthiness of the financial statements that will be used as the foundation for decision-making can be improved by the auditor's report, and this will be more improved if the techniques employed in auditing are more scientific and will enable them to give a higher level of reasonable assurance. Therefore, it is desired that the auditors can continue to produce high-quality reports, and the request for audit services will be on the increase because it will gain higher credibility (Ellula & Buttigiegb, 2021).

2.1.2. Theory of Inspired Confidence
Limperg (1932) put forward the theory of inspired confidence and the theory assumes that the necessity for expert and independent examination as well as the need for an expert and

independent judgment backed by the examinations are the sources of the auditor's broad function in the society as a confidential agent. This necessitates auditors to prepare and carry out their audit in ways that will reduce the possibility of substantial misstatements going unnoticed (Amahalu, 2020). The theory provides a link between the financial report that users desire, which is a credible and reliable financial report, and the audit procedures' ability to meet those needs. It equally observes the evolution of these public (stakeholder) needs and audit methods through time.

The theory is significant to forensic audit technology because it links stakeholders' needs for financial information reliability to audit techniques' capacity to meet these needs. This is because changes in the needs of stakeholders might result in changes in auditing procedures and the auditor's function. The auditor must perform the audit in such a way that any external stakeholder's expectations are not jeopardized. As a result, when audit techniques progress, auditors should strive to meet the public's realistic expectations. Also, the fact that audit firms are investing heavily in cutting-edge technical advances to boost the effectiveness and efficiency of the audit process (Albawwat & Frijat, 2021) imply that they aim at inspiring the confidence of the public in audit practice.

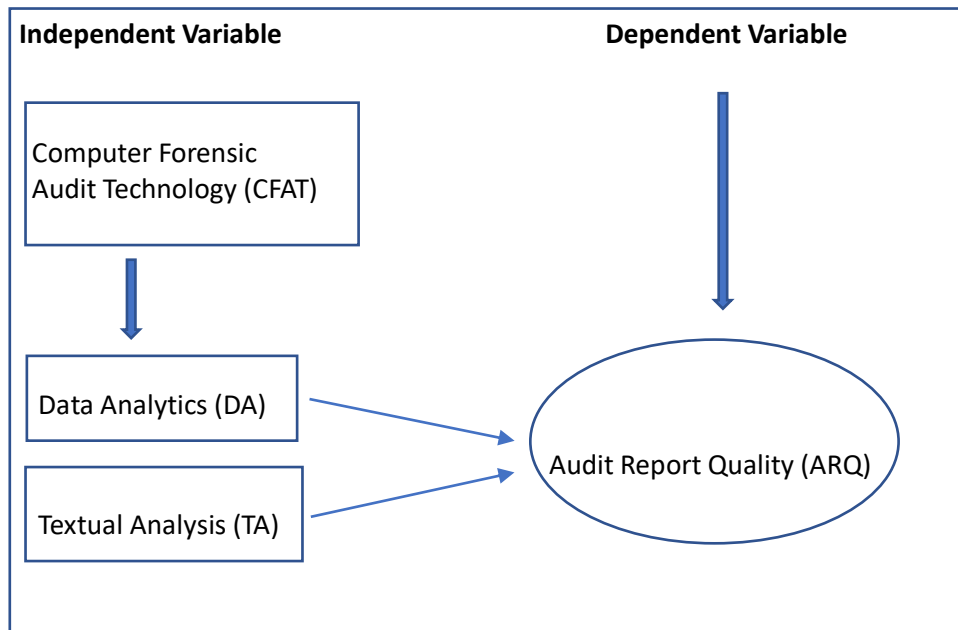*2.2. Conceptual Review*
The conceptual framework

Figure: 1

In this model, the perceived benefit of computer forensic audit technology has been facilitated by data analytics and textual analysis to embed scientific methodology in the auditing process to ensure the quality of the end product which is the auditor's report.

2.2.1 Audit Report Quality

The auditor's report is an evaluation that presents the auditor's assessment of whether financial statements for a company adhere to GAAP and don't contain any significant misstatements or errors. According to Dunakhir (2016), the quality of an audit report is defined as the chance that an external auditor would detect and disclose a breach in the client's accounting system. The auditor's report is the end product of an audit, and it must be of good quality due to the reliance of various business stakeholders on it for informed economic decisions about the firm. It is however, unfortunate that all the regulators and investor's attempts to ensure that audit report is of good quality in terms of timeliness, sufficient details, and opinion issued remained fruitless and this is evidenced in the demonstration of sabotage and the flaws in the most recent audit report (Akpan & Akpan, 2021).

For several reasons, financial reports don't always reflect the exact, accurate, and objective information (Knežević, 2015). In some instances, it may involve errors, omissions, incorrect application of accounting standards, and in rare circumstances, intentional and predetermined misleading financial reporting, and this brought the development of forensic audit as a novel technique for fraud detection, avoidance, and defense. As regard opinion issued, it is observed that many auditor's reports always read true and fair views of which otherwise opinion could be observed, and this may therefore mean that many material errors were not detected since a high technical ICT means that supersede the expertise of the auditor is used in perpetrating the fraud.

2.2.2. Forensic Audit Technology

Forensic technology refers to the use of technical solutions for the retrieval and analysis of enormous and complicated data sets that can be utilized to meet litigation concerns, investigation needs, regulatory needs, and requirements related to financial crime (Bhusahan et al., 2015; Easwaramoorth et al., 2016). A subfield of forensic science is called computer forensics and it deals with the recovery and examination of data from digital devices, frequently in the context of computer crime (Paransanthi, 2016). Also, Bhusahan et al. (2015) explained that computer forensic specialists are responsible for the preservation, gathering, and analysis of data and other evidence found on computers to ascertain the relevant facts. Fenu and Solinas (2016); Galvan and Battiato (2016), described computer forensics as the process of investigating a computer system used for accounting, financial reporting, and or financial transaction purposes to determine the cause of the incident.

The mainstays of any digital forensic investigation are computer tools as they remove the barrier that limits the expertise of auditors (Bhat et al., 2021). Professional accountants, such as auditors and forensic accountants urgently need to upgrade digitally their existing forensic accounting abilities to be able to successfully soothe the rising tension in the corporate financial reporting environment. This is done to prevent dreaded speculations among fearful Investors whose value of an investment is rapidly declining (Ugochukwu & Okenwa, 2021). The development of

efficient and trustworthy computer forensics is primarily responsible for good change in auditing practice in countries like the United States of America and other developed countries.

Using computer forensics, any type of evidence can be preserved by analyzing information through electronic means. It equally aids in the understanding of a series of events, storing, classifying, and validating information. Technology like data analytics enables auditors to spend less time sifting through boxes of paperwork and more time investigating matters of concern. Textual analysis on the other hand as a technique is useful in predicting outcomes by identifying anomalies, trends, and correlations in huge data sets (Akpan & Akpan, 2021). Organizations can easily transform raw data into meaningful information if it is analyzed in summary according to Bassey (2018), by employing software to search for patterns in big amounts of data, firms' auditors can learn more about their clients, and review if existing audit plan will be executed and above all save cost.

2.2.2.1. Textual Analysis
Textual analysis refers to a variety of ways to collect data from written sources for use in data analysis, business intelligence, or research, among other things (Loughran & McDonald, 2016). Textual analysis is the method used to describe and interpret the characteristics of information and the main purpose of textual analysis is to describe the content, structure, and functions of the messages contained in texts. According to Kumar et al. (2016), textual analysis comprises a variety of techniques that aim to extract meaningful information from documents. It is done by identifying and examining patterns in the unstructured data of various types of documents. In the study of Loughran and McDonald (2016), the techniques used in textual analysis are content analysis approach, dictionary approach, and machine learning approach. In the study, the process of assessing documents to discern their subjective undertone is known as textual analysis. Auditors can only offer a clean audit opinion in their report when they have no substantial reservations about anything related to the financial statements. It can then be said that the threshold for a modified audit opinion is lowered when auditors are unable to determine whether audit evidence is adequate which can easily be done through textual analysis.

2.2.2.2. Data Analytics
The process of evaluating data sets to make inferences about the information they contain using specialized tools and software is known as data analytics (DA). It entails data structure exploration, finding trends and clusters, noticing local patterns, assessing model output, and presenting results. Data quality assessment and familiarization with the structure and features of the data are crucial for exploratory data analysis for auditors (Mara stats, 2019). When an investigation on information is to be carried out, data analysis is capable of presenting the condensed version of client financial information which is mostly oversimplified to obscure substantial underlying variation and this obscurity can easily be revealed and observed when it is analyzed. Analyzing full data sets for abnormalities and trends that can be investigated further to establish audit evidence entails the use of audit data analytics. Typically, this procedure analyzes entire populations of data as opposed to the much more typical audit approach, which just looks at a small subset of the information.

2.1.3. Forensic Audit Technology and Audit report Quality

Since the incorporation of digital forensics in the field of information technology into businesses, academics with a keen interest in ICT have persevered in resolving the auditing challenges associated with business operations (Mushtaque, et al., 2015).

It is believed that adopting textual analysis in audit skills in statutory audit will bring about substantial, thorough, and in-depth verification of all, or appropriately selected transactions in questionable business areas, and this showcase its preferment over independent audit which simply uses sampling techniques and performs crucial tests. This opinion is supported by Vaijayanthi (2017) who found out that collected papers can be automatically categorized into many useful categories using the clustering method via textual analysis. And the text groups known as descriptors are used to characterize the contents of seized digital devices which can in turn provide useful information and evidence that can aid audit opinion. Nwaobia (2021) examined the relationship between forensic auditing, the effectiveness of internal audits, and the prevention of corporate fraud at the Nigerian listed deposit money institutions and it was found that digital forensics has a good impact on corporate fraud prevention in Nigerian listed deposit companies. It is equally believed that analytics technologies will help the auditor identify vulnerabilities in expenditures, postings, and other transactions. The findings of Ham et al. (2020) showcase that the need for auditors' intellectual and IT abilities grew from 2010–2019 and is positively correlated with audit quality. Additionally, the correlation between IT skills and audit quality is stronger for audit firms that employ more IT workers and work with more complicated clients.

Since the aim of an auditor's report is to add credibility to the financial reports prepared by the management, auditors engaging data analytics in audit procedures is a crucial component of the plan to raise audit quality. Verve (2008) opined that the use of audit analytics can significantly reduce audit risk since the traditional audit approaches relied upon judgmental or statistical sampling for both substantive and compliance testing. This is corroborated by Hassan (2022) who discovered that computer intelligence makes audits far more productive and economical because it gives audit teams a deeper understanding of the company they are assessing. Another study (Gentneret al., 2018) verified that AI is utilized in auditing to speed up the process of identifying patterns in data and making predictions or decisions. However, Noordin et al (2022) observed a non-significant difference in the perception of local and international audit companies' perceived usefulness of AI's contribution to audit quality.

2.3 Empirical Literature

2.3.1 Textual Analysis

Gandía and Huguet (2021) studied textual analysis and sentiment analysis applications in accounting. After introducing the terms textual analysis and sentiment analysis and highlighting their relevance to accounting, the prior research on the application of these ideas in finance and accounting as well as the steps that should be taken when using this textual analysis methodology were reviewed. The paper then recommends using textual analysis to uncover hidden clues that might conflict with the intermediary's stated public position in the audit reports or opinions. Furthermore, the potential advantages of incorporating textual analysis into auditing were examined by Liu, Y. (2019), and they specifically examined how textual analysis will

enhance knowledge of the annual report review procedure, audit fee determination, and internal control risks. The study uses the strong and weak modal word lists from Loughran and McDonald (2011) to gauge the strength of the initial SEC comment letters based on their modal usage. The study identifies a favorable correlation between the a more abnormally negative tone of earnings in press releases is associated with higher audit fees, demonstrating that the abnormal tone of press releases can be a signal of the client's business. The study also found an association between the intensity of the comment letter and the likelihood of restatement of the reviewed 10-K filing.

Ugochuckwu and Okenya (2021) investigated if the use of forensic digital tools effectively predicts tendencies of material misrepresentation in Nigerian financial regimes before and after the implementation of IFRS. Using secondary data, data obtained from 50 manufacturing companies in Nigeria were evaluated utilizing pre- and post-IFRS annual reports from the year's 2006 to 2016 using digital forensic techniques like Probit Model e-enabled spreadsheets. The Mann-Whitney U test and the Multiple Regression Analytical tool were used to examine pertinent hypotheses. The analysis' findings demonstrated that the proper use of digital forensic techniques can accurately forecast the likelihood of substantial falsification in the pre- and post-IFRS Financial Statements of certain manufacturing enterprises sampled in Nigeria. Vaijayanthi (2017) discovered that the retrieved documents can be automatically categorized into several useful groups using clustering methods via textual analysis. Word groups known as descriptors are used to characterize the contents of cluster documents and the seized digital devices can provide precious information and evidence about facts if well analyzed. Likewise, Bassey (2018) focused on computer forensic accounting as it affects the management of fraud in microfinance institutions in Cross River State. Data collected from both primary and secondary sources were analyzed using the ordinary least square technique. The regression results showed that the estimated coefficients of the regression parameter are all negative signs. The study revealed that audit failures over decades have prompted a paradigm shift in accounting and thus concluded that forensic accounting plays a significant role in the prevention of crimes and corruption.

2.3.2 Data Analytics

Al-Ateeq et al. (2022) investigated the effects of perceived benefits and perceived accessibility of components of the technology acceptance model (TAM), on the adoption of big data analytics in auditing and the subsequent effect on audit quality. A questionnaire poll was conducted with Jordanian offices and linked external audit firms. SEM, or structural equation modeling, was used to analyze the measurement model and test the study's assumptions. The research reveals that, without mediating the actual usage of data analytics, perceived usefulness and perceived simplicity of use have a direct impact on audit quality. However, the application of big data analytics has been proven to moderate the connection between perceived usefulness and audit quality.

Fedyk et al. (2022) explored how artificial intelligence (AI) affects audit quality and efficiency. The study used a unique dataset of more than 310,000 individual resumes with specific information for the 36 top audit firms to determine which audit firm employed AI workforce in the auditing industry. Importantly, the company's AI division is consolidated, with personnel

concentrating on a small number of teams and areas. Our findings demonstrate that even if the benefit doesn't become apparent for some years, investing in AI improves audit quality, lowers costs, and eventually replaces human auditors.

Ellull and Buttigieg (2021), evaluated how data analytics (DA) can be applied to Maltese external public sector audits to increase the value that can be gained from them. They also examined DA's application in Malta's National Audit Office here, including its descriptive, diagnostic, predictive, and prescriptive aspects (NAO). The research employs a hybrid methodological strategy where semi-structured interviews were used to acquire empirical data, and NAO auditors from every audit unit were given questionnaires to be completed. The results show that although the NAO has begun to incorporate data analytics into its operations, the usage of DA by the Office is still modest. According to the report, data analytics implementation will be advantageous for every unit within the NAO.

Akinadewo et al. (2019) conducted a study in Nigeria, the study looked at how much digital forensic accounting affected government direct tax collection from the lottery sector. Respondents were given semi-structured questionnaires, which were used to collect primary data. The findings of the research study's multiple regression analysis demonstrated that forensic accounting is a powerful check against the improper handling of public funds.

It was observed that in the domain of accounting and auditing, textual analysis is still an emerging area as most of the earlier research on textual analysis's application to accounting relied on news and the internet as its information sources, linking these sources of information to several capital market indicators (Li et al., 2014; Loughran & McDonald, 2016; Mo et al., 2016). This study seeks to fill this gap in literature as it explores the techniques of textual analysis and data analytics concerning audit report quality to assess the potential benefits of applying computer forensics to auditing.

3. Methods
The study used a survey design to obtain information about the use of forensic audit technology and auditors' report. The use of questionnaires is more appropriate in these circumstances as it helps to provide in-depth access to the opinion of the auditors who are more concerned on the subject matter. Hence, data were collected from primary sources through the use of a questionnaire distributed to the target respondents. The population of the study for this research comprises 281 registered auditing firms with the Institute of Chartered Accountants of Nigeria (ICAN) as of Jan 1st, 2022 (ICAN Website). A census sampling technique was employed, and the target respondents are experienced auditors in these auditing firms who could provide information that could meet the result of the study.
The reliability and validity of the research instrument will be tested using the Cronbach alpha test, and KMO test. The questionnaire was distributed to the respondents using an online survey due to the dispersed locations of the auditing firms and the collected data will be analyzed using ordinal logistic regression.

3.1 Model Specification

Since the study deviated from the normal norm of evaluating audit attributes as determinants of audit quality, the model to be analyzed was adapted from the study of Kertarajasa, et al. (2019) that analyzes the influence of competence, experience, independence, due professional care, and auditor integrity on audit quality using the ordinary least square model through the regression equation as follows: AQ = β + 1KOMP + 2PENG+ 3IND+ 4DPC+ 5ING + e…......... Equation 1

The model was adapted because employing computer forensic audit will improve the competence, experience, and integrity of the auditor, and the new model is specified as.

$ARQ = \beta_0 + \beta_1 DA + \beta_2 TA + e$…......... Equation 1

Where ARQ: Auditor's Report Quality; DA - Data Analytics and TA- Textual Analysis

4. Results and Discussion Findings

4.1 Descriptive statistics

The summary of the respondents' responses regarding the study variables which are data analytics (DA), textual analysis (TA), and Audit report quality (ARQ) was documented in table1. The statistics show that the average response on data analytics is 3.99 and the standard deviation is .8072 which shows that on average the respondents give a positive opinion on the variables as the value is very close to agreeing on the Likert scale and the standard deviation shows that there is a moderate variation in the responses considering the distance of the standard deviation value to mean value and coefficient variation shows 0.2020 which implies that the extent of variability is around 20 percent and the minimum response is 1 which represent strongly disagree and maximum of 5 representing strongly agree. The response is negatively skewed and has a kurtosis showing values of -.33410 and 2.1375 for skewness and kurtosis.

Furthermore, in table 1, the responses of the respondents on textual analytics on average is 4.1332 with a standard deviation of .49046 showing that on average the respondents give a positive opinion on the variables as the value is between agree and strongly agree. However closer to agreeing on the Likert scale. The standard deviation shows that there is a moderate variation in the responses considering the distance of the standard deviation value to the mean value and coefficient variation shows .11866 indicating that the extent of variability is around 11.86 percent, and the minimum response is 1 which represents strongly disagree and maximum of 4 representing agree. The response is positively skewed and has a normal univariate distribution showing values of .0596738 and 2.010288 for skewness and kurtosis.

Lastly on table 1, it is shown that responses as regard audit report quality on average are 3.3172 with a standard deviation of .3296 showing that on average the respondents give a positive opinion on the variables as the value is between agree and undecided. However more closely to undecided on the Likert scale. The standard deviation shows that there is a low variation in the responses considering the distance of the standard deviation value to the mean value and coefficient variation shows .0993818 indicating that the extent of variability is around 9.93 percent, and the minimum response is 1 which represents strongly disagree and maximum of 4

representing agree. The response is positively skewed and has a normal univariate distribution showing values of .77425 and 2.780579 for skewness and kurtosis.

Table 1: Descriptive Statistics of Study Variables

Variables	Data Analytics	Textual Analytics	Audit Report Quality
Obs	106	106	106
Mean	3.995957	4.133255	3.317217
S. D	.8072696	.4904653	.3296709
Coeff. V	.2020216	.1186632	.0993818
Minimum	1	1	1
Maximum	5	4	4
Skewness	-.3341038	.0596738	.7742528
Kurtosis	2.137527	2.010288	2.780579

Source: Researcher's Computation (2022)

4.2 Test of Variables

4.2.1 Reliability and Validity Test

To establish the validity of the research instrument Cronbach alpha test, KMO test was employed to test if the questions raised in the questionnaire are significantly relevant to the objective of the study. The retained questions after factor analysis were subject to reliability test and the results shows that the remaining questions for data analytics have a strong reliability as the coefficient shows 89.05 percent, 72.8 percent for textual analysis and 86.13 percent for Audit Report Quality

Table 2: Reliability and Validity Test

Variable	Average interitem covariances	Scale reliability coefficient	No of items
Data Analytics Cronbach Alpha	.8607367	0.8905	3
Kaiser-Meyer-Olkin (KMO)	-	0.534	3
Textual Analytics Cronbach Alpha	.2121444	0.7280	4
Kaiser-Meyer-Olkin (KMO)	-	0.700	4
Audit Report Quality Cronbach Alpha	1.101108	0.8613	3
Kaiser-Meyer-Olkin (KMO)		0.545	3
Source: Researchers' Computation (2022)			

4.2.2 Factor Analysis for Study Variables

The principal-components approach of factor analysis was used on the questions to identify the most relevant and unique questions that describe the best forensic audit technology. This method is considered because it explains more variance than any other form of factoring (Kothari & Garg, 2014). A factor is dependable if it has four or more loadings of at least 0.4 regardless of sample size (Pituch & Stevens, 2016) and for this purpose, a cut-off of 0.4 was employed for interpretative reasons. The result as presented in table 4 shows that after factor analysis, 3 questions were retained for data analytics, 4 questions were retained for textual analysis, and 3 questions for audit report quality. As for data analytics, the opinion of respondents shows that its usage avail auditors to have proper audit evidence due to easy detection of errors and inconsistencies, risk assessment, and patterns of transaction occurrence. The analysis equally shows that the quantity and quality of audit evidence could be increased with the use of textual analysis. Auditors equally agree that textual analysis increases the probability of fraud detection and internal control weakness. It was also observed that the audit report quality is improved when it can provide assurance to the stakeholders and give opinions free from misstatement and bias.

Table 3: Data Analytics

S/N	STATEMENT	Factor Loadings
1	Do you agree that assessment of the client's financial history will add to the credibility of financial reporting?	0.13623
2	A review of past transactions from the source document is a requisite for credible reporting.	0.1283
3	A suspicious pattern can be detected when financial information is analyzed	0.1088
4	Errors and inconsistencies in data can easily be visualized for proper audit evidence.	0.6101
5	Do you agree that software applications can improve the time taken to analyze information?	0.1828
6	Auditors can strategically do risk assessments by visualizing the trend of transactions.	0.9007
7	Do you agree that trend patterns discovered through analysis will influence the reliability of financial reporting?	0.8986

Textual Analytics

S/N	Statement	Factor Loadings
1	Do you agree that scanning and processing vast amounts of financial data can be possible and can influence the credibility of an audit?	0.1436
2	Do you agree that the use of content analysis increases the quantity and quality of audit evidence?	0.8454
3	Do you agree that extracting meaningful information from financial documents is part of the audit process?	0.5312
4	The risk of management fraud can be observed when data are analyzed from written sources.	0.8214
5	The weakness and strengths in Internal control can easily be identified in the process of extracting meaningful information.	0.5468
6	Analyzing content in financial statements aid in audit investigation when an error is detected.	0.19369
7	Do you agree that the financial intelligence of a system can be reviewed and tested which will invariably influence audit quality?	0.3607
8	The use of Textual Analysis helps auditors to meet clients' audit expectation.	0.2404

Audit Report Quality

S/N	statement	Factor Loadings
1	Engaging in forensic audit technology guarantees reliable audit reports.	0.2390
2	The opinion expressed in the auditors' report is of high relevance when forensic audit technology is employed.	0.3335
3	The preservation of the evidence used in preparing an auditor's report is facilitated by forensic audit technology	0.1993
4	There is less risk of audit failure due to forensic expertise applied	0.5635
5	A credible audit provides assurance to stakeholders.	0.9073
6	Do you agree that the reliability of an audit report requires it to be free from material misstatements and bias?	0.9473
7	Do you agree that audited financial statements must faithfully represent what they purport to represent?	0.1297
8	Do you agree that being able to analyze a different range of financial data from different sources will influence the credibility of audited financial statements?	0.3210

4.2.3 Spearman Correlation of Study Variables

In testing the hypothesis of the study, the relationship between the forensic audit technology measures such as data analytics, and textual analytics on audit report quality was measured using spearman correlation which is a non-parametric test suitable for hypothesis testing in survey research was employed. Doing this will help establish the contribution of the individual effect of data analytics and textual analytics to the improvement of the audit report and this is presented in table 4. The correlation results show that data analytics have a negative relationship with audit report quality and the relationship is significant in such a way that a one-time improvement in data analytics will cause a decrease in audit report quality by up to 33.71 percent. It was equally observed that the relationship between textual analysis and audit report quality is also negative, and the relationship is significant at 5 percent. One-time improvement in the textual analysis will decrease audit report quality by 54.17 percent. From the correlation results, it can be implied that inculcating computer forensic audit in auditing practice does not contribute to the overall audit report quality of audit firms in Nigeria but rather negatively impair it and this could mean that the underlying factors for this technology adaptation are not needed to promote the reliability of the auditors' report.

Table 4: Correlation between Computer Forensic Audit and Audit Report Quality

Forensic Audit Technology	**Audit Report Quality**	
	Coefficient	**Probability**
Data Analytics	-0.3371*	0.0004
Textual Analysis	-0.5417*	0.0000

Source: Researchers' Computation (2022)   * 5 percent

4.3 Effect of Computer Forensic Audit on Audit report Quality of Selected Audit Firms in Nigeria
The effect of computer forensic audits measures such as data analytics and textual analytics on audit report quality was also considered and ordered logistic regression is considered more appropriate to analyze the effect between the dependent and independent variable since the survey data obtained is on scale making it an ordinal data and the result is presented in table 5. The probability value and the Z-statistics are used as the indices of interpretation for the linear relationship between computer forensic audit and audit report quality. The overall result shows that computer forensic audits have a significant effect on the audit report quality issued by the audit firms after an independent audit. This is evidenced by the likelihood ratio which is significant, and this implies that the model analyzed is significant at 5 percent. The variance that can be caused in audit report quality by computer forensic audit is 11.08 percent. The regression result shows that data analytics have a positive and significant effect on audit report quality having z-statistics of 2.50 and a probability of 0.012 while the effect of textual analysis shows a negative and significant effect on audit report quality.

The result implies that the ability of the auditors to detect errors and inconsistencies from audit data for proper audit evidence through data analytics will cause an improvement in the audit

report quality. This also implies that for an auditor to properly establish evidence for a valid opinion to be issued in his report, it then means data analytics can serve as a strategic means of assessing risk inherent in transactions so that the opinion issued will be reliable to make a useful and valid economic decision. The findings align with the result of Al-Ateeq et al. (2022) which reveals that the usage of big data analytics improves the perceived usefulness, simplicity, and overall audit quality. The findings also establish the findings of Ugochukwu and Okenya (2021) which revealed that the proper use of digital forensic techniques can accurately forecast the likelihood of substantial falsification in financial reports which can be a tip for the investor for useful economic decisions.

The effect of textual analytics on the report of auditors implies that extracting meaningful information from financial documents is part of the audit process and it is significant because the risk of management fraud can be observed when data are analyzed from written sources. However, the negative effect can imply that the use of textual analysis does not totally help auditors to meet clients' audit expectations or add to the credibility of audit reports through the preservation of the evidence. The expectation of shareholders as regard audit is for auditors to detect fraud and disclose it in their report and this in the opinion of the auditors is not capable of adding credibility to the audit report. The negative correlation and effect could also be attributed to the lack of popularity of this technique for auditing and when the usage cannot be well appropriate the consequence can be unfavorable. It can be inferred that the absence of certain standard methodologies and procedures to guide computer forensic accounting assignments in external auditing may make it not of great benefit but rather unfavorable.

The findings of the study negate the findings of Bassey (2018) who submit that there is a positive shift in auditing and thus concluded that forensic accounting plays a significant role in the prevention of crimes and corruption as expected by concerned parties. However, the opinion of Bassey (2018) is subjective to internal audits by microfinance banks in Cross Rivers. Gandía and Huguet (2021) took a conceptual approach to examine the application of textual and sentiment analysis in accounting and they found its relevance to accounting which negates the findings of the study.

Table 5: Ordinal Logistic Regression Table

Audit Report Quality	Coef.	Std. Err.	Z	P>|z|
Data Analytics	.6060364	.2422348	2.50	0.012
Textual Analytics	-3.426086	.5396426	-6.35	0.000

Number of obs = 106
LR chi2(2) = 49.84   Prob> chi2 = 0.0000
Log-likelihood = -200.00163   Pseudo R2 = 0.1108

Source: Researchers' Computation (2022)

4.4 Policy Implication of the Study
In the 21st century, auditing practices have shifted as investors are looking for means to close the audit expectation gap by getting quality assurance of auditor's report. The study therefore serves as a basement upon which the accounting professional bodies can encourage the use of computer forensic technology in audit practice to maintain the auditor's face in the public and add value to the report produced by the firms.

5. Conclusion and Recommendations
The study exposes the adaptation of computer forensics into an independent audit to improve the quality of the audit report. It is observed that the usage of computer forensic audit in practice is modest even in the big 4 audit firms and to a large extent use computer technology as a significant tool employed in an audit engagement. The findings of the study as regards the influence of textual analysis are different from the results of the previous researcher who admits the positive correlation between textual analytics. Even though there is a lack of empirical evidence from the previous research implying that the study made a significant contribution in adding value to auditing practices. The study concludes that computer forensic technology is a significant underlying factor that can influence the credibility and reliability of audit reports and improve their overall quality. Basic data analytics will positively improve the audit report quality while textual analytics may not yield the needed results if auditors lack the needed skills such as machine learning and statistical and linguistic techniques that could help them gather appropriate and sufficient.
It is then recommended that.

i. Audit firms should strategically employ the usage of software applications that can permit data analytics to redeem the credibility image of the auditors' report.

ii. Auditors should step up their financial intelligence skills by embedding textual analysis in audit engagement to sharpen their skepticism for proper audit evidence and also favorably influence audit quality.

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