

**FORENSIC ACCOUNTING AND QUALITY OF FINANCIAL REPORTING OF QUOTED BANKS IN NIGERIA****Nwaiwu Johnson, \*Ejimofofor, Louis Chidi and Perekume, Mark**

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The inspiration for this research which examined the effect of forensic accounting on quality of financial reporting of quoted banks in Nigeria was tensed by the high rate of low quality of audited financial reports by companies including quoted banks in Nigeria and its affirmation as unqualified reports by external auditors. The objective is to examine the effect of forensic accounting on quality of financial reporting of quoted banks in Nigeria. Cross sectional data were sourced from audited financial reports of quoted banks spanning from 2009-2018. Ordinary least square method were used to determine the extent to which forensic accounting affects quality of financial reporting of quoted banks in Nigeria. After cross examination of the validity of the pooled effect, fixed effect and the random effect, the study accepts the fixed effect model. In both models, the independent variables explain 61.6 percent and 59.2 percent of variations on value relevance and audit time lag. The F-statistics validated that the models are significant while the p values of the coefficient indicated that the effect are statistically insignificant. The beta coefficient further showed that litigation support services had a positive effect on value relevance and negative effect on audit time lag respectively. The study concludes that there is urgent need to publish audited accounts on timely basis to enhance timely investment decision and recommends that appropriate law enforcement agencies should go against banks that delay the publication of its annual accounts within the time frame stipulated by law. This would engage forensic accountants in litigation support services, instill consciousness on the top managements and strengthen the quality of financial reporting and build stakeholders' confidence.

**Keywords:** Litigation Services, Forensic accounting, Quality reporting, Audit time lag, Value relevance.**INTRODUCTION**

There has been long quest for timely publication of audited accounts of companies including banks within the time frame of 180 days from the end of accounting year to allow investors and other stakeholders study the reports and make informed investment decisions. Financial statements are statutorily prepared by the management of a company for the usage of various stakeholders. These financial statements indicate the state of the financial well-being of the company. They are usually the window through which a company's financial affairs are made available to the average investors and sometimes the only information available to banks and other institutional investors. Consequently, potential investors and other stakeholders rely on these financial statements to assess the type of dealings they could have with the company. An accurate assessment and evaluation of a company can be carried out if the financial statements are accurate. However, fraudulent activities, undue delay and window dressing syndrome perpetrated by top managements of banks have posed a big threat and loss of confidence to investors and other users of financial statements who rely heavily on the financial reports to make investment decisions and other uses. In accounting, the relevant of information sourced from financial reports are key to the users. It is capable of making a difference in decisions making if it has predictive and confirmatory values. Predictive value helps users in predicting or anticipating future outcomes while confirmatory value enables users to check and confirm earlier predictions and evaluations. In order to have relevance, accounting information must be timely. The relevance of information is affected by its nature and its materiality and financial statements published within three months after the end of accounting period will have more relevance than financial statements published over

one year after the period end. On the other hand, timeliness of accounting information refers to the provision of information to users quickly enough for them to take action. Information becomes obsolete and useless if it is not reported within reasonable time frame. Usually the Statute specifies the time for preparation and presentation of financial reports, which is within six months from the end of accounting year. Therefore relevance and timeliness may mean sacrificing some precision or reliability over a period of time. Bamidele, Ibrahim and Omole (2018) affirm that quality of financial reporting is the standardization of preparation and presentation of both financial and non-financial information by the financial institution for effective planning and reliable decision. However, the objective of financial reporting is to provide information that may be useful enough for evaluating management effectiveness in utilizing resources under its control to satisfy its users' needs. He further opines that financial analyst, investors and management experts have deployed dozens of forensic accounting mechanisms that facilitate the assessment of performance index manipulation by a suspect company. He observed that 'because the preparation of financial statements is the responsibility of company's management', transactions could be doctored and structured to suit their best interest in order to achieve desirable results and boost their earnings at the detriments of shareholders and other stakeholders. He stressed that the quality of a company's earnings and financial reporting system are often overlooked which calls for forensic accountant skillful examination. Financial reporting is not only a final product; the quality of its reporting depends on each component parts including disclosure requirements of the company's transactions, information about the selection and application of accounting policies and knowledge of the judgement made. The application of high quality accounting information are expected to improve forensic accounting services. However, a

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better quality of financial reporting would defeat management incentives to engage in earnings manipulations, conspiracy and window dressing. Thus, this could be achieved because the board of directors will hold more accurate information which increases their ability to monitor managers' activities including investment decision. Forensic accounting according to Okoye and Gbengi (2013) includes the use of accounting, auditing, and investigative skills to assist in legal matters. It consists of two components: Litigation services that recognizes the role of accountant as expert consultant in litigation services and investigative source that uses forensic accounting skills and may require possible courtroom testimony. They further reiterated that forensic accounting may involve the application of special skill in accounting, auditing, finance, quantitative methods, the law and research. It also involves qualitative skill to collect, analyze and evaluate financial evidence, as well as the ability to interpret and communicate findings. Forensic accounting is seen as encapsulating all other investigative related areas in uncovering financial fraud. The increasing complexity of financial fraud requires that forensic accounting be added to the tools necessary to bring about the successful investigation and prosecution of those individuals involved in criminal activities. Forensic accounting is the tripartite practice of utilizing accounting, auditing and investigative skills to assist in legal matters. It is a specialized field of accounting that describes engagements that result from actual or anticipated disputes or litigation. Forensic accounting can therefore be seen as an aspect of accounting that is suitable for legal review and offering the highest level of assurance (Apostolou, Hassell, and Webber, 2000). Forensic Studies (2010) reports the increasing need for forensic and investigative accounting in the banking sector in the face of complexities of modern day banking with large volume of complex data. This, in turn, makes it difficult to monitor transactions by applying manual audit processes. This in turn makes the control utility of auditing ineffective.

The external auditors have continually certify fraudulent financial statements as unqualified audit reports thus, resulting to impoverishment of investors and most times corporate collapse and economic crisis. Since the external auditors have refused to accept the responsibility of detecting financial fraud, rather have claimed to be only responsible for laying credence to financial statements has created a gap between the users of accounting information and accounting profession. This gap is known as audit expectation gap (Adeniji, 2004; Ekwueme, 2000). Hence, the failure of statutory audit to prevent and reduce fraudulent activities in banks had necessitated the need for the employment of skills of forensic accounting professionals with investigative, detective and litigation skills (Owojori and Asaolu, 2009). In a publication by the Head of Communication and Public Affairs, NDIC, Mohammed Kudu Ibrahim in January, 2018, it was revealed that fraud abuses by staff of banks increased from 231 in 2016 to 320 in 2017. Despite the fidelity insurance cover taken by banks to address frauds perpetrated by its staff, there is still need to further enhance their internal control and security measures as rising trend of E-channels fraud and forgeries remains a serious cause for concern to the industry. The federal government on the other hand deployed the services of anti-graft agencies such as Directorate of Public Prosecution (DPP), Economic And Financial Crime Commission (EFCC), Independent Corrupt Practices And Other Related Commission, (ICPC), and SERVICOM who are not authorities and professionals on financial matters and lack the basic investigative skills to

unravel fraudulent activities and vice versa. In spite of all the noises about the use of these agencies, companies including banks continue to collapse due to poor quality of financial reporting. The banking sector which is considered very volatile and sensitive has gone through some moments of deep crises with the trial and dismissal of five banks' Executive Officers who filed misleading financial reports to Central Bank of Nigeria. The issue that led to this was blamed on poor corporate governance which saw some insider abuses leading to banks having unfavorable balances on their shareholders funds. As a result, CBN conducted forensic audit which indicted the five Chief Executive Officers. Instance of corporate financial fraud could also be drawn from recent bank failures in Nigeria where management has fraudulently given loans without board approval and yet such banks annual report have been unqualified for its shady deals. However, the use of forensic accounting is not yet common in Nigeria, the rate at which financial irregularities in Nigeria financial institutions are spreading especially in the banking sector has put the focus on the need for forensic accounting techniques to be utilized in all spheres of the economy. The incidence of frauds is neither limited to the banking industry nor peculiar to Nigeria economy, however the high rate of fraud within the banking industry, calls for urgent attention with a view to finding lasting solutions. From the cited studies above, it is evident that researchers have done more on the impact of forensic accounting on prevention of financial frauds while little or no extant study was done on the need to engage the services of forensic accounting and enhance quality insurance of financial reporting, the justification for this study.

In view of the above reviewed studies adopted the approach of conventional measures of quality of financial reporting which includes fundamental and enhancing characteristics as propounded by the IASB in conjunction with the FASB in 2008 to measure qualities of financial reporting. These attributes include relevance, verifiability, faithful representation, timeliness, completeness, comparability, true and fair view, and understandability. However, the authors are not disputing the use of these conventional characteristics to measure quality of financial reporting but there has been extensive debate that most of them are unobservable (Abernathy, 2010). Also, all the empirical studies reviewed for this study adopted quantitative data which is prone to manipulations and often unverifiable. This present study, as a point of departure, adopted qualitative (secondary) data obtained from audited reports of listed banks existing in Nigeria and the fact book of Nigeria Stock Exchange (NSE). The authors adopted the use of modern measures on forensic accounting and quality of financial reporting of quoted banks operating in Nigeria applying the services of forensic accounting proxied by litigation support services and quality of financial reporting proxied by indirect or modern measures of value-relevance and audit time lag. In order words, the study intends to validate the modern measures of quality of financial reporting of quoted banks to ameliorate the age long cankerworm and determine whether forensic accounting has any significant effect on quality of financial reporting in Nigeria. The study, therefore, intends to investigative what effect is litigation support services has on both value relevance and audit time lag as proxies for quality of financial reporting. The study is the second, to the best of the researchers' knowledge, to adopt average market share price (AMSP) to measure and validate value relevance as a proxy to quality financial reporting. The study is in five sections, the first is the

introduction, the second is the literature review, the third is the methodology, the fourth is the result and discussion while the fifth is the conclusion and recommendations.

## THEORETICAL FRAMEWORK

### Information Asymmetry Theory

Information asymmetry theory is the possession of relevant information about an entity at different levels between the agent (managers) and the shareholders (principal) and other stakeholders in which the agents have different behaviours and different decisions which might affect the performance of the entity. It is an agency relationship which exists between the economic actors (managers) and the principal (stakeholders) where the welfare of the principal is influenced by the actions and decisions of the agent. There seems to be a mistrust when information is not appropriately shared among the stakeholders. The theory of information asymmetry is related to popular agency theory often referred as principal and agent relationship propounded by (Jensen and Michelin 1976). The concept of information asymmetry theory was first introduced in Akerlofs (1970) on a paper about automobile products in America. He opined that asymmetry of information exists where buyers cannot accurately assess the quality or value of a product through examination before sale is made and all sellers will more accurately assess the quality or value of a product prior to sale. The information asymmetry in this context is a situation whereby the managers have more relevant information and took advantage over the investors and other interested parties about the current and future prospects of the entity or the business and thus chooses when to disseminate such information.

Managers can use accounting disclosures as well as other forms of disclosures and announcements to portray bad or good news, which may influence the quality of financial reporting. The information would give competitors an advantage if they know about it. Managers have obligation to disclose both good and bad news at the reporting period without any form of bias. Managers boast earnings during bad times to protect their job or reduce earnings during good times to save future bad times. According to Donald, David, Llaría *et al.* (2018), Information asymmetry is a condition wherein one party in a relationship has more or better information than another. Their work is diffused on management research and its existence in core assumptions within the leading theories on management. According to Osisoma and Enahoro (2006), accounting processes and choice of policies resulting from management judgments at the same time are capable of manipulations which have resulted in poor quality reporting. The differences which are observed in financial reporting are legitimately prepared from choice of varied accounting policies of the same organization for the same period and has brought about challenges of credibility to accounting discipline. This is because when secret reserves are created, it actually means that agent are not providing good information to shareholders or asking managers about any suspicious account or dubious transactions. This is where creative accounting centers, when it tries to present and manipulate financial statements in order to record profit or create lucrative picture. The agent here acts as the managers and accountants who prepare financial statement in a way to suit their organization's prepositions and financial status while the principals are the shareholders and other stakeholders who

make use of these information for informed decision-making. It shows that managers or accountants in some circumstances do not work hard but rely majorly on the manipulation and managers assumptions. Finally, completeness as an attribute of quality financial reporting entails full disclosure of material facts for users of financial reports to understand the financial performance and position of the reporting entity, including all necessary descriptions and explanations. Therefore, information asymmetry theory affects the quality of financial reporting in Nigeria and this research work is underpinned under this theory to improve its credence.

### Forensic Accounting Techniques

The origin of forensic accounting dates back to the ancient Egyptian scribes who accounted for the Pharaoh's assets, known as the "eyes and ears of the Pharaoh." In 1817, the forensic accounting had its first day in court when an accountant was required to testify at a bankruptcy hearing in Scotland. However, Pouloubet in 1946 was probably the first to publish the phrase "forensic accounting". Forensic accounting was introduced by western countries for the first time in the 1980s in line with the developments in the market economy and to support the judicial system. It is a science that differs from traditional accounting which leads to getting accounting facts through using procedures and audit methods that dealt with legal problems and financial attributes (Keskin and Ozturk 2013). Forensic accounting according to Crumbley, Heitger and Smith (2009) is an investigative accounting. The concept is generally viewed as the action of identifying, recording, settling, extracting, sorting, reporting and verifying past financial data or other accounting activities, for settling current or prospective legal disputes, or using such past financial data for projecting future financial data to settle legal disputes. It utilizes accounting, auditing and investigative skills when conducting any kind of investigation. Forensic accounting is the tripartite practice of utilizing accounting, auditing and investigative skills to assist in legal matter (Olola, 2016). Hao (2012) believes that forensic accounting is the result of the integration between the legal framework and accounting framework. It has been considered that using forensic accounting techniques will help in exposing and identifying the culprits because this accounting process of interpreting, summarizing and providing complicated financial issues clearly using accounting literature to help draw facts in the litigation ( Chi-Chi and Ebimobwei 2012).

Bhasin (2007) notes that the objective of forensic accounting must include the assessment of damages caused by an auditors negligence, fact findings to see whether an embezzlement has taken place, in what proportion and whether criminal proceeding are to be initiated and collection of evidence in a criminal proceedings. In the view of Dhar and Sarkar (2010) forensic accounting is the application of accounting concept and techniques to legal problems. It demands reporting where accountability of the fraud is established and the report is considered as evidence in law court or administrative proceedings. According to research conducted by academic experts such as Manning (2005) notes that the services of forensic accounting are utilized in areas such as accounting, antitrust, damages, analysis, valuation, and general consulting. Forensic accountants have also been used in divorces, bankruptcy, insurance claims, personal injury claims, fraudulent claims, construction, royalty audits, and tracking terrorism by investigating financial records.

## **Litigation Support Services**

This is an aspect of forensic accounting that provides assistance on accounting nature in a matter involving existing or pending litigation. It deals primarily with issues related to the quantification of economic damages and it requires appearance in the court of competent to testify validated facts and documentary evidence. According to Bassey, Ahonkhai and Ohimai (2017) Litigation support takes into cognizance the interpretation and representation of problems that are connected to helping current and imminent litigation. In this aspect of knowledge, the forensic accountant might be told to attach a supposed value for the loss caused by those involved in the legal conflicts and asked to help in providing solution to conflicts even before they go to court. Due to the knowledge of forensic accountants, they are usually intended to be proficient consultants and expert witness. Forensic accounting to Okoye and Gbengi (2013) includes the use of accounting, auditing, and investigative skills to assist in legal matters. It consists of two components: Litigation services that recognizes the role of accountant as expert consultant, and investigative source that uses forensic accounting skills and may require possible courtroom testimony. They further reiterated that forensic accounting may involve the application of special skill in accounting, auditing, finance, quantitative methods, the law and research. It also involves qualitative skill to collect, analyze and evaluate financial evidence, as well as the ability to interpret and communicate findings. According to Akintoye (2008), forensic litigation support provides assistance of a nature in a matter involving existing or pending litigation or represents the factual presentation of economic issues relating to existing or pending litigation. It deals primarily with issues related to the quantification of economic damages sustained by parties involved in legal disputes and can assist in resolving disputes even before reaching or getting to the court room. A good example of litigation support assignment would be calculating the economic loss resulting from breach of contract. Organizations also hire forensic accountants for guidance when evaluating potential business transactions. Forensic accountants assess a company's true worth during mergers and acquisition and ensure that a purchaser is knowledgeable about the target firm's financial situation and value, while looking for signs of suspicious accounting activity (Harris and Brown, 2000). Forensic accountants also quantify damages in cases of personal injury, product quality, contract disputes and intellectual property as well as uncovering hidden assets in complicated matrimonial law cases.

Zysman (2001) captured the litigation services of forensic accountants to include: shareholders and partnership dispute that involve analysis of numerous year financial records for valuation and quantification of the issue in dispute, personal injury claim where for example economic losses from motor accident or wrongful dismissal may need to be quantified, business interruption and other type of insurance claim, these assignments involve a detailed review of the policy to investigate covered issues and the appropriate methods of calculating the loss, business economic losses on contract dispute, construction claims, expropriation, product liability claim and trademark are some of the services, professional negligence to ascertain the breach and quantify the loss involved, mediation and arbitration as a form of alternative dispute resolution. Forensic accountant has familiarity and comfort with legal issues and procedures, they sought out special training and become involved in alternative dispute

resolution (ADR). ADR services include both mediation and arbitration designed to help individuals and businesses resolve complex disputes with minimal disruption and in a timely fashion.

## **Value Relevance**

This is the ability of information that are disclosed in financial or monetary report to represent or capture the value of the intended firm accurately. This concept is based on relevance and dependability and it entails the ability of any firm's accounting report to summarize the details underlying their stock / share price. It explains the possible relationship between monetary details and stock price (Lui and Liu, 2007). It also means or entails the ability of monetary or financial information which are presented in financial report to explain their real market measures. For any financial or monetary reports to be important, their content must be essential in making investment decision. Thus, from perspectives or view of investors, only information which contributes to investment decisions for business owners is crucial (Olubukola, Uwalomwa and Jimoh, 2016). Listed firms employed monetary or financial report as their main means for communicating monetary information to their business-owners and the public. Accounting information are described as relevant when they influence their users' decisions in true sense (Uwalomwa, Uwegbe and Okorie, 2015). It makes firms look and remain trustworthy in the minds of business owner and possible investors. This concept is evaluated to ascertain the usefulness of monetary information to the business owners (Papadak and Siougle, 2007). Therefore, maximizing prices of stock in any firm is the key objective of most listed or named banks in achieving their credibility in the mind of business owners. Consequently, value of any firm is dependent on how the market sees their performances.

## **Audit Time Lag**

Audit time lag or delay is generally define as the length of time from company's financial year – end to the date of audited reports was signed by the directors. Timeliness is an important qualitative attributes of financial statement, which requires the information to be made available to the users as rapidly as possible. A research conducted on 20 selected quoted companies in Nigeria showed that it takes a minimum of 30 days and maximum of 276 days on the average beyond the balance sheet date before they are finally ready for the presentation of audited accounts to the shareholders at the Annual General Meeting. Financial information users require accurate and timely information for informed decision-making. The American Accounting Association (AAA, 1954 & 1957) was the first to consider timeliness as one of the qualitative attributes or characteristics of useful financial statements. Dibia and Onwuchekwa (2013) sees audit time lag as number of days from accounting year-end of a company and the audit report. They described audit time lag as an important information councilor, which focuses on audit firms, companies, regulators, investors, and its time lag directly determines the usefulness of decision-making. Inordinate audit time lag jeopardizes the quality of financial reporting by not providing timely information to investors and prospective investors. Delayed disclosure of an auditor's opinion on the true and fair view of financial information prepared by the management increases the information unevenness and the uncertainty in investment. Consequently, this may adversely

affect the investors confidence in the capital market as experience in the market shows that audit report lag significantly affects the investors' chance of being defrauded and the degree of uncertainty on investment.

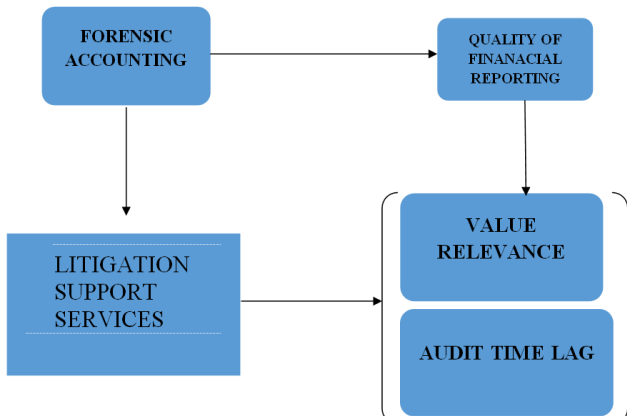


Fig.1. Operational framework of the effect of forensic accounting on the quality of financial reporting

**Empirical Review**

Nwaiwu and Aaron (2018), in a study, Forensic Accounting and Quality Assurance on Financial Reporting of Public Sector in Nigeria affirmed that there is growing acceptance of forensic accounting and quality assurance on financial reporting of public sector across the world. Pearson product moment coefficient correlation was used in analyzing the primary data with the aid of social package for social sciences 20. The study further mentioned that holders of forensic accounting qualification have a very bright future because of its relevance to the national and global socioeconomic development by strengthening the credibility of financial reporting and rebuilding the investors' confidence and trust on financial reports. Enofe, Micheal, and America (2016) on the study titled: Financial Accounting and Fraudulent Financial Reporting in Nigeria investigated the role of forensic accounting and financial reporting in Nigeria banks by using sample size of 150 of professional accountants and 10 banks in Edo State. Primary data were used and relevant information elicited from respondents through distributed questionnaires. The analysis of data involves the use of both statistical and econometric methods in order to provide a rich background for the investigation. The study revealed that forensic accounting practices needs further improvements to impact on the reporting quality. Onodi, Okafor and Onyali (2015) examined the effect of forensic investigation methods in corporate fraud deterrence in Nigerian banks. The study adopted a survey research design and data from primary source were collected through interviews and administration of questionnaires, while secondary source consists of reports on fraud and forgery in the banking sector. Statistical tools used to analyze the data include percentages, mean score, frequency tables, regression analysis and Z-test. The result revealed that there is a significant relationship between the forensic investigative methods and corporate fraud deterrence. The findings revealed that expert services of forensic investigators are normally required in the prosecution of fraud, but majority of the audit and accounting personnel in Nigeria are suffering from poor perception and knowledge of forensic investigative methods qualitative characteristics (relevance and faithful representation) of financial reporting accounting and enhancing qualitative characteristics (understandability) can be significantly be enhanced through forensic accounting.

**METHODOLOGY**

This study adopted ex-post facto research design. Data were collected from secondary (qualitative) sources. Ex-post fact research design studies facts that have already occurred and collected but not necessarily amassed for research purposes. The population of the study are the banks whose shares are listed in the Nigerian Stock Exchange. They consist namely; First Bank Plc, Eco Bank Ltd, UBA Plc, Fidelity Bank Plc, Union Bank Plc, Stanbic IBTC Bank Plc, Access Bank Plc, Zenith Bank Plc, FCMB Plc, GT Bank Plc, WEMA Bank Plc, NPF Micro-finance bank Plc, Unity Bank Plc, Sterling Bank Plc, Abbey Mortgage Bank Plc, Aso Savings and Loans Plc and Jaiz Bank Plc. The researchers employed convenient sampling technique to select ten (10) quoted banks on the Nigeria Stock Exchange that met the post consolidation requirements of CBN in 2006. Convenient sampling technique is adopted where the population of the study is large as it is the case in this study. For the purpose of this study, secondary data were collected from publications of Nigerian Stock Exchange Fact Books and audited financial statements of the quoted banks. The data obtained were used to analyse the variables.

**Operational Measure of Variables**

There are two set of variables in this study; the predictor variables and criterion variables. Forensic accounting services is the independent or predictor variables and is proxied by litigation support services. Quality of financial reporting is the dependent or criterion variable represented with modern or indirect measures of reporting as value relevance and audit time lag.

Litigation Support Services	Number of prosecuted cases in the court for or against each bank for the period under review.
Value Relevance	Earnings Per Share – Average Market price of Shares. Modified Edward Bell Ohlson (1995) model.
Audit Time Lag	Interval between the end of the financial year and date of audited reports

In this study, the data analysis method employed is panel data multiple linear regression using “Ordinary Least Square (OLS) method”. Multivariate analysis technique is an inferential method for analyzing relationship between many variables.

**Model Specification**

FA = f (LS, VR); This is split into models 1 and 2 as shown below;

**Model I: Forensic Accounting and Value Relevance**

The study adopts the panel data method of data analyses which involve the pool effect, fixed effect, the random effect and the Hausman Test.

**Pooled Effect Model:** The functional relationship is expressed as

VR=f (LS,) .....i

Equation (iv) can be expressed in a linear form or mathematically as

VR= β<sub>0</sub>+ β<sub>1</sub>LS .....ii

By turning equation (v) into econometric model, to include random term, is expressed as

$$VR_{it} = \beta_0 + \beta_1 LS + U. \dots\dots\dots iii$$

**Fixed Effects:** The fixed effects focus on whether there are differences by using a fixed intercept for each of the different cross-sectional structures. If we assume that the dummy variable for a conglomerate company is 1 or 0, then  $D_i$ , which is the dummy variable for firm  $i$ , can be expressed as:

$$D_i = \begin{cases} 1, & i-1 \\ 0, & otherwise \end{cases} \quad D_2 = \begin{cases} 1, & i-2 \\ 0, & otherwise \end{cases} \quad \dots \quad D_N = \begin{cases} 1, & i-1 \\ 0, & otherwise \end{cases} \quad iv$$

The regression of total samples can be expressed as:

$$Y_{it} = \sum_{i=1}^N \beta_{oi} D_i + \beta_i D_s + \beta_3 s_1 + \beta_{oi} D_4 s_2 + \epsilon_{it} \dots\dots v$$

The dummy variables are expressed as follows: if  $j = i$ , then  $D_i = 1$ ; otherwise  $D_i = 0$ .<sup>2</sup>

To further investigate the effect of forensic accounting and quality of financial reporting in quoted banks in Nigeria, Adebayo (2012) analyzed whether the independent variables affect the dependent variable, this regress the effect of the independent variables on the dependent variables.

$$VR_{it} = + \mu_i + \beta_0 + \beta_1 LS + U \dots\dots\dots vi$$

Because the fixed effects account for both cross-sectional and time-series data, the increased covariance caused by individual-firms differences is eliminated, thereby increasing estimation-result efficiency.

**Random Effects:** Random effects focus on the relationship with the study sample as a whole; thus, the samples are randomly selected, as opposed to using the entire population. The total sample regression (a function of the random effect) can be expressed as:

$$VR_{it} = \sum_{j=1}^N \beta_0 + \beta_1 LS + UT \dots\dots\dots vii$$

If this is represented with random variables, then  $\beta_{oj} = \bar{\beta}_0 + \mu_j$ , which indicates that the difference occurs randomly, and the expectation value of  $\beta_{oi}$  is  $\bar{\beta}_0$ .<sup>5</sup> ..... viii

- VR = Value relevance
- LS = Litigation Support
- Ut = Error term

**Model II: Forensic Accounting and Audit Time Lag**

The study adopts the panel data method of data analyses which involve the pooled effect, fixed effect, the random effect and the Hausman Test.

**Pooled Effect Model:** The functional relationship is expressed as

$$ATL = f( LS, ) \dots\dots\dots ix$$

Equation (vii) can be expressed in a linear form or mathematically as

$$ATL = \beta_0 + \beta_1 LS \dots\dots\dots x$$

By turning equation (viii) into econometric model, to include random term, is expressed as

$$ATL_{it} = \beta_0 + \beta_1 LS + U. \dots\dots\dots xi$$

**Fixed Effects:** The fixed effects focus on whether there are differences by using a fixed intercept for each of the different cross-sectional structures. If we assume that the dummy variable for a conglomerate company is 1 or 0, then  $D_i$ , which is the dummy variable for firm  $i$ , can be expressed as:

$$D_i = \begin{cases} 1, & i-1 \\ 0, & otherwise \end{cases} \quad D_2 = \begin{cases} 1, & i-2 \\ 0, & otherwise \end{cases} \quad \dots \quad D_N = \begin{cases} 1, & i-1 \\ 0, & otherwise \end{cases} \dots\dots xii$$

The regression of total samples can be expressed as:<sup>1</sup>

$$Y_{it} = \sum_{i=1}^N \beta_{oi} D_i + \beta_i D_s + \beta_3 s_1 + \beta_{oi} D_4 s_2 + \epsilon_{it} \dots\dots\dots xiii$$

The dummy variables are expressed as follows: if  $j = i$ , then  $D_i = 1$ ; otherwise  $D_i = 0$ .<sup>2</sup>

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Because the fixed effects account for both cross-sectional and time-series data, the increased covariance caused by individual-firms differences is eliminated, thereby increasing estimation-result efficiency.

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If this is represented with random variables, then  $\beta_{oj} = \bar{\beta}_0 + \mu_j$ , which indicates that the difference occurs randomly, and the expectation value of  $\beta_{oi}$  is  $\bar{\beta}_0$ .<sup>5</sup> ..... xvi

- ATL = Audit Time Lag
- LS=Litigation Support Service
- Ut = Error term

**Research Hypotheses**

These null hypotheses below are formulated to guide this study based on research questions and specific objectives stated above.

- H0<sub>1</sub>:** There is no significant effect of litigation support services on the value relevance of quoted banks in Nigeria.
- H0<sub>2</sub>:** Litigation support service does not have significant effect on the audit time lag of quoted banks in Nigeria.

## RESULTS AND DISCUSSION

### Presentation of Results

**Table 1. Presentation of Fixed Effect Model**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
<b>MODEL 1: Forensic Accounting and Value Relevance</b>				
LS	37.58611	35.32686	1.063953	0.2891
C	140.2249	210.7427	0.665384	0.5068
Effects Specification				
<b>Cross-section fixed (dummy variables)</b>				
R-squared	0.616716	Mean dependent var		0.652200
Adjusted R-squared	0.481306	S.D. dependent var		0.453580
S.E. of regression	0.256059	Akaike info criterion		0.225353
Sum squared resid	5.769847	Schwarz criterion		0.537973
Log likelihood	0.732374	Hannan-Quinn criter.		0.351876
F-statistic	22.24021	Durbin-Watson stat		1.698267
Prob(F-statistic)	0.000000			
<b>MODEL 2: Forensic Accounting And Audit Time Lag</b>				
LS	-0.155199	0.125126	-1.240344	0.2181
C	2.074683	0.205823	10.07996	0.0000
Effects Specification				
<b>Cross-section fixed (dummy variables)</b>				
R-squared	0.592515	Mean dependent var		1.838500
Adjusted R-squared	0.220921	S.D. dependent var		0.434224
S.E. of regression	0.438742	Akaike info criterion		1.302358
Sum squared resid	16.93954	Schwarz criterion		1.614978
Log likelihood	-53.11788	Hannan-Quinn criter.		1.428881
F-statistic	0.815574	Durbin-Watson stat		2.343672
Prob(F-statistic)	0.624561			

**Table 2. Data and Results of Forensic Accounting, Value Relevance and Audit Time Lag**

S/N	BANK	YEAR	VR	ATL	LS
i	ACCESS BANK	2009	0.77	2.39	2.23
		2010	0.89	1.90	2.24
		2011	0.82	1.47	2.23
		2012	0.76	1.46	2.98
		2013	0.99	1.97	2
		2014	0.83	1.85	2
		2015	0.45	1.85	2
		2016	1.69	1.41	2
		2017	0.82	1.90	2
ii	FCMB	2009	0.76	2.13	0.47
		2010	0.85	1.90	1.63
		2011	0.72	1.80	1.64
		2012	0.49	1.88	1.61
		2013	0.65	1.91	1.83
		2014	0.54	1.85	1.80
		2015	0.34	1.88	1.92
		2016	0.03	1.88	-
		2017	0.03	1.90	1.50
iii	FIDELITY	2009	0.45	1.86	0.47
		2010	0.35	1.91	0.47
		2011	0.32	1.95	0.69
		2012	0.01	1.95	0.60
		2013	0.41	1.93	0.47
		2014	0.18	3.02	0.60
		2015	0.02	1.88	0.47
		2016	-0.07	2.00	0.60
		2017	0.10	2.03	0.60
		2018	0.18	1.89	0.47

.....Continue

S/N	BANK	YEAR	VR	ATL	LS
iv	<b>FIRST BANK</b>	2009	1.18	1.93	2.44
		2010	1.08	1.95	2.36
		2011	1.01	2.18	-
		2012	0.85	1.90	-
		2013	1.19	1.89	0.60
		2014	1.03	1.76	0.69
		2015	0.65	1.98	0.69
		2016	0.33	2.06	0.69
		2017	0.73	2.05	0.84
		2018	0.99	2.00	0.30
v	<b>GUARANTY TRUST BANK</b>	2009	1.07	1.72	1.69
		2010	1.18	2.64	1.83
		2011	1.14	1.77	2.44
		2012	1.14	1.84	2.49
		2013	1.36	1.77	2.24
		2014	1.38	1.69	2.59
		2015	1.30	1.74	2.63
		2016	1.21	1.78	2.65
		2017	1.44	1.75	2.67
		2018	1.54	1.72	2.68
vi	<b>STANBIC IBTC</b>	2009	0.76	2.07	2.12
		2010	0.94	1.74	1.88
		2011	0.95	1.86	1.90
		2012	0.87	1.66	2.15
		2013	1.19	1.84	2.16
		2014	1.41	-	2.25
		2015	1.33	2.53	2.33
		2016	1.18	1.81	2.45
		2017	1.43	2.28	2.47
		2018	1.66	1.57	2.52
vii	<b>STERLING BANK</b>	2009	0.03	2.12	2.02
		2010	0.19	1.90	1.99
		2011	0.09	1.94	2.00
		2012	0.08	1.80	2.04
		2013	0.31	1.97	2.14
		2014	0.28	1.79	2.08
		2015	0.23	1.78	2.11
		2016	0.09	-	2.27
		2017	0.13	1.91	2.30
		2018	0.11	1.86	2.30
viii	<b>UNITED BANK FOR AFRICA</b>	2009	0.99	1.91	2.07
		2010	1.02	1.95	2.69
		2011	0.76	2.00	2.07
		2012	0.38	2.10	2.17
		2013	0.80	1.92	2.26
		2014	0.74	1.92	2.32
		2015	0.42	1.86	2.76
		2016	0.41	1.91	2.81
		2017	0.36	1.91	2.84
		2018	0.94	1.86	2.86
ix	<b>UNITY BANK</b>	2009	0.35	1.96	2.34
		2010	0.16	2.04	2.09
		2011	0.69	1.67	2.64
		2012	0.46	1.75	2.51
		2013	0.07	-	2.52
		2014	0.49	1.83	1.54
		2015	0.17	1.94	1.61
		2016	0.18	1.89	2.88
		2017	0.11	1.93	2.52
		2018	0.02	1.59	2.54
x	<b>WEMA BANK</b>	2009	0.64	2.14	1
		2010	0.33	2.02	0
		2011	1.13	-	1.32
		2012	0.03	2.33	1.04
		2013	0.03	1.79	1.36
		2014	0.04	1.75	1.44
		2015	0.69	1.79	1.53
		2016	0.77	1.95	1.49
		2017	0.73	2.01	1.55
		2018	0.71	1.94	1.47



## Test of Hypotheses

Decision Rule: Reject or discard null hypothesis when calculated t value is greater than t value in critical value table at 1.080

**H0<sub>1</sub>:** There is no significant effect of litigation support services on the value relevance of quoted banks in Nigeria.

**Table 3. Test of hypothesis 1**

R <sup>2</sup>	61.6
Adjusted R <sup>2</sup>	48.1
T calculated	1.063953
T table	1.080
Significant level	5% = 0.025 (two tail)
Probability	0.2891

### Decision

With computed t value of  $\pm 1.063953$  less than the critical t value of 1.080 the researcher therefore reject the alternate hypothesis and accept the null which says there is no significant effect of litigation support service on the value relevance of quoted banks in Nigeria.

**H0<sub>2</sub>:** Litigation support service does not have significant effect on the audit time lag of quoted banks in Nigeria.

**Table 4. Test of hypothesis II**

R <sup>2</sup>	59.2
Adjusted R <sup>2</sup>	22.0
T calculated	-1.240344
T table	1.080
Significant level	5% = 0.025 (two tail)
Probability	0.2181

### Decision

With computed t value of  $\pm 1.240344$  greater than the critical t value of 1.080 the researcher therefore reject null hypothesis and accept alternative which says that litigation support service has significant effect on the audit time lag of quoted banks in Nigeria.

## Concluding remarks and Recommendations

The study examined 'the effect of forensic accounting on quality of financial reporting of quoted banks in Nigeria'. Model one: Forensic accounting on value relevance of the study found that the independent variable proxied by litigation support services in the regression model showed that 61.6% alteration on the value relevance of the banks under study could be explained by changes in forensic accounting variables examined. The F- Statistics showed that the model is significant while the coefficient showed that litigation support services is positively related with value relevance and the p value showed that the coefficient is statistically significant. Model two: forensic accounting and audit time lag of the study found that the independent variable in the regression model showed 59.2% alteration or variation in audit time lag of the banks studied could be explained by discrepancy in forensic accounting variable examined. The F –statistics showed that the model is significant while the coefficient showed that litigation support services is negatively related with audit time lag and p value showed that the coefficient is statistically insignificant. Hence the conclusion drawn from these findings were that there was positive coefficient of 37.58611 as a parameter for litigation support services and value relevance at

a p value of 0.2891; the study therefore concludes that litigation support services have positive and significant impact on value relevance of quoted banks in Nigeria. The study further found negative coefficient of -0.155199 as a parameter for litigation support services and audit time lag at a p value of 0.2181; the study therefore concludes that litigation support services have negative but insignificant effect on audit time lag of quoted banks in Nigeria. The study concludes that average market per share [AVMPS] is a stronger indices to access the quality of financial reporting than the book value of shares [BVPS]. The study also concludes that there is need to hold office holders and those in authorities accountable for their actions within the legal framework. The study found significant effects between forensic accounting and quality of financial reporting by values of 61.6% and 59.2 % respectively. Based on the above, the study recommends that accounting regulators in Nigeria like the Financial Reporting Council of Nigeria and other relevant accounting agencies should promulgate and promote litigation programs, trainings and certification to strengthen the litigation and detective skills of forensic accountants. Forensic experts should be engaged to scrutinize audited financial statements of companies before or after the annual general meetings to lay credence on such reports. The study also recommend probe of audit delay and formulate policies to enforce compliance.

The Nigeria legal system should be structured in a manner that would accelerate credible judgments to build and restore the hope of the common man. Stakeholders in private and public sectors should support and encourage the growing acceptance of forensic accounting services and quality insurance on financial reporting. Also Nigeria as a developing country should enact laws that are consistent and up-to-date with latest technological advancement to catch up with the antics of the fraudsters who devise numerous means to commit fraudulent acts. Engagement of forensic experts should not be seen as expensive services for companies who prefer out of court settlements and dreading that certain publications might blemish their corporate image. Also companies who default in producing their audited accounts within the statutory period should be investigated for probable fraudulent activities. The government and other regulatory bodies should enact laws mandating companies whose shares are quoted on the stock exchange to engage the services of forensic experts at intervals since it has been established by this study that forensic accountants have the potentials to positively impact on the quality of financial statements. The obligation of forensic accounting should include the assessment of damages caused by an external auditors negligence, fact findings to see whether an embezzlement, misstatements and falsifications have taken place, in what proportion and whether criminal proceeding are to be initiated and collection of evidence in a criminal proceedings.

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