



Exploring the Link Between Professional Scepticism and Audit Quality: An Income Smoothing Approach

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Abstract

The vital role played by the assurance providers in moderating the agency relationship is as important as the total amount committed to the entity. However, the weakness of the adopted monitoring mechanism gives room to fraud and kills audit quality. To overcome this challenge, this academic study explored the influence of professional scepticism on the audit quality of companies listed in the financial services sector of the Nigerian Capital Market. This study examined the dimensions of experience, traits and motivation of assurance services, as it impacted fraud detection and audit quality. A random sampling of firms was conducted to select twenty-five companies in the financial sectors of the Nigerian Exchange Group (NXG). Thereafter, the audited annual report and the auditor's website were navigated for the dataset. The static panel regression estimators were utilized for inferential statistics after considering post-estimation diagnostic tests. Findings reveal that auditor experience and trait significantly increase fraud detection, and consequently, audit quality will rise in the financial services sector. Based on these findings, it was concluded that both auditor's experience and traits are the drivers of fraud detection and quality assurance provision in the listed financial services firms of the NXG. It was recommended that audit firms should give appropriate consideration to factors that impact the quality of professional services rendered. Experience and expertise, specialization and tenure, complexities and regulatory framework should be monitored to ensure the protection of stakeholders and the working of monitoring mechanisms.

Keywords: Professional Scepticism; Audit Quality; Fraud Detection; Auditors Experience; Auditors Motivation; Auditors Trait

JEL Classification

M41; M42; M52

Introduction

Financial statements are crucial in modern economies, yet their reliability has been undermined by frequent accounting scandals emanating from audit failures which eroded public trust (Hai, Toanc, Quy & Tung, 2020; Abdelkarim & Khaled, 2020; Bala, Amran & Shaari, 2018). High-profile cases such as Enron, WorldCom, and Wirecard have highlighted significant deficiencies in auditing practices, prompting calls for fundamental reforms (Uvaneswaran & Shikur, 2022; Alrshah, 2015). As if the foreign experience is not enough to drive stakeholders' attention to this matter, other sub-regions of the globe witness significant financial crises at one point or another due to the problem of audit failure in key industries of the capital market (Sulaiman, Musa & Kasum, 2023; Agrawal, Birt, Holub & Van Zyl, 2021; Akeem, 2015).

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Despite substantial regulatory efforts, the repetitiveness of financial scams remains a lacuna yet to be filled in the present economy. Fraud perpetration in the business arena has put a setback on the progress of many organisations leading to the preparation of financial statements using a break-up basis (Alwan, 2021; Dong, Wang, Zhang & Zhou, 2020). The enormity and sadness necessitate the non-assumption of a going concern principle in the preparation of the annual financial statement (Hassan & Musa, 2023).

The research problem arose from the practicality of real-world audit practices based on theoretical audit quality models. From the auditor's angle, size, reputation, experience and multinationalism determine the quality of assurance provision (Musa, Salman, Amoo & Subair, 2020; Ratna & Anisykurlillah, 2020). It would be expected that a combination of these factors should have enhanced professional scepticism of audit firms in detecting errors arising from fraud. However, happenings in the business environment make it difficult to rely on auditors' work as numerous cases of financial malpractice surfaced (Tjan, Muslim, Alimin, Noch & Sonjaya, 2024). This questions whether auditors put these factors to optimum usage or whether they exist theoretically in books. A look at the direction of other determinants suggested that not paying accurate watch to the engagement factors of time lag and audit session can wreck the quality of audit work while also opening doors to various financial crimes (Musa, Salman & Amoo, 2021; Soyemi & Olawale, 2019). A thorough consideration of this and the likely control measures from assurance firms increase the chance for professional scepticism thereby promoting audit quality (Udeh & Nwadiakor, 2016). In line with the general understanding, professional scepticism is the auditor's ability to raise alarm about audit evidence and ensure an enquiry mind is kept throughout the audit process. Failures by assurance providers to uphold this standard have resulted in numerous reports of sanctions against accounting firms, both domestically and internationally, which have tarnished the global reputation of the accounting profession.

The impact of professional scepticism on audit quality, especially in detecting fraud amidst recurring accounting scandals should pave the way for the necessary solutions driving business growth in emerging economies (Lamba, Yohanes, Lamba & Pattiasina, 2020; Kim & Trotman, 2015). The role of auditor cognition in enhancing fraud detection tools during audit processes has been de-emphasised based on fraudulent activities. Attention towards professional scepticism in auditing is not seen as significant by assurance providers. In some situations, evidence is not evaluated critically, resulting in high-risk fraud and causing negative damage to firms' reputations. (Johari, Hati & Sayed Hussin, 2022). Despite its acknowledged importance, there is an ongoing investigation into how professional scepticism is practically applied in audits. There remains a lack of cohesive and comprehensive academic research on audit effectiveness to tackle these complex challenges.

Based on the aforementioned, this research examines auditing's crucial role in ensuring financial accountability amid complex markets and recurring scandals. This study analyzed factors impacting audit quality and explored the link between professional scepticism and fraud detection using empirical data from audited financial statements. Practical insights were provided for auditors and policymakers to strengthen transparency and accountability in financial reporting through evidence-based reforms and risk-based audits.

The Nigerian economy is chosen since the country has the largest and multi-faceted economy in Africa. The outcome of this can serve as the basis for other emerging economies in the study of auditor's professional scepticism and audit quality. Secondly, the uniqueness of the regulatory environment and financial reporting practice assist in the investigation of control measures in the variation of professional scepticism and audit quality. These measures emanated from listing requirements by the Nigerian Exchange Group (NXG), Securities and Exchange Commission (SEC) and Financial Reporting Council of Nigeria (FRCN). The combination of these controls and their effect on the audit process give a great insight into the future of audit practices in emerging African economies.

This study offers valuable insights (contributions) into the relationship between professional scepticism and audit quality by linking auditors' traits, experience, and motivation to income smoothing, a quantitative measure of audit quality. By focusing on these specific aspects of professional scepticism, the research advances our understanding of how individual auditor characteristics affect their ability to detect and address income-smoothing practices. This approach provides a more detailed and measurable evaluation of audit quality compared to traditional qualitative assessments that include audit opinion, reputation, deficiencies, fees, independence and restatements. Additionally, the study highlights the importance of fraud detection, as a component of audit quality, emphasizing how auditors' traits, experience, and motivation impact their effectiveness in uncovering fraudulent activities. These findings suggest that targeted training programs aimed at enhancing these attributes could improve audit quality. Moreover, the research sets the stage for future studies to further explore the role of professional scepticism in auditing, which potentially leads to more comprehensive models for evaluating audit performance. Summarily, the combination of dimensions explored, variable measurement, and the robustness of the analytical tools constitute the contribution made by this study.

Literature Review

Conceptual Framework

Audit Quality

The process of undertaking a check on the financial statement prepared by company management adds credibility and reliability to the financial report. In addition, the agency relationship between shareholders and management requires a mediating role that will be played by an external party who will validate the presented report of activities. The procedure of ensuring a balance among business stakeholders calls for quality assurance services in the audit market (Drogalas, Pazarskis, Anagnostopoulou & Papachristou, 2017). The ability to attain quality audits allows the integration of reliability and efficiency in audit practice while financial information is accurately presented to stakeholders (Efiong, Bassey, Osadim & Onyeogaziri, 2018). The financial market will be safeguarded and fraud will be earlier detected by examiners in places where quality audit is paramount (Evbuomwan, 2021). In line with the theoretical literature, audit quality is determined by internal and external factors.

The internal factors are those within the capacity of the assurance providers while the externals are a function of the auditees (Ado, Rashid, Mustapha & Ademola, 2020). The internal determinants that emanate from the supply side can be the size usually measured by the strength of manpower available for audit, experience mostly captured with the number of years spent in assurance services, reputation usually measured with the cases against auditors, and the multinationalism dichotomy that proxied for big 4 (Musa, Salman, Amoo & Subair, 2020; Soyemi & Olawale, 2019). In addition to these, whether the audit is carried out during the busy session or non-busy period impact significantly on the quality of work performed (Sulaiman, Musa & Kasum, 2023; Singh, Lai, Vejvar & Cheng, 2019). This is because assurance providers may be careless about certain aspects of audit work leading to a high risk of audit failure. The range of days employed in the audit also matters as the quality audit is guaranteed when the time lag is longer (Musa, Salman & Amoo, 2021; Ogungbade, Adekoya & Olugbodi, 2021). This allows auditors the timeframe to check necessary records and documents which serve as evidence. Invariably, an enquiry mind will be adopted by firms of chartered accountants in the audit process leading to improved reliance on audited financial statements and reduction in financial crime.

From the external factors, auditees' complexities, risk, size and internal control constitute the factors on the demand side of audit (Jerry & Saidu, 2018; Fullerton & Durtschi, 2004). The level at which these factors operate in the auditee determines how the auditor will be able to manage the audit assignment to achieve a successful report (Aishah, 2021; Bryan & Reynolds, 2016). Auditee size regarding total assets or number of employees usually dictates the technique of audit to be utilised by assurance providers as large firms require a unique approach which captures the overall business process (Nwanyanwu, 2017; Nigrini, 2012). The business risk and control mechanism needs to be fully captured to avoid focusing on areas of lesser risks. Also, the complexities of the auditee business scope must be reviewed in line with the audit strategy to yield a sound audit work (Bills, Cunningham & Myers, 2016; Deis & Giroux, 1992). When both factors are easily managed, audit work is expected to be on the high side while the fraud detection mind is raised.

To measure audit quality, numerous methods are employed in literature including audit fees, auditors' brand name, and earnings management (Uthman, 2021; Ugwu, Aikpitanyi & Idemudia, 2020). This study utilised the earnings management approach leveraging on the modified Jones model. The model relies on discretionary accruals that can be easily manipulated by management to explore the level of fraud and malpractices performed by the management of quoted firms. The approach is adopted as it is computed mathematically based on components of financial statement line items. This will ensure all aspects of firm operations are integrated into the computation of audit quality and the level of financial fraud.

Professional Scepticism and Fraud Detection

Professional scepticism is the assurance provider's attitude to critically assess financial data and audit evidence. It is among the duties of the company's management to prepare financial statements and institute an internal control system (Mat, Mohamed, Muhammad, Ghani & Ali, 2021). The audit firms are expected to query the assumptions upon which the statements are prepared, validate the reliability of information submitted by management, and ensure that the financial report is free from error and mal-practices which may hinder the going concern assumption of the business (Agrawal et al., 2021; Abdelkarim & Khaled, 2020). This concept brings auditors' objectivity into play while strictness and veracity of the audit process form the basis of keeping enquiry in mind about the true and fair view of the financial statement (Aisha, 2021; Ado et al., 2020).

Auditors with this challenging mindset keep a red flag of financial fraud and ensure transparency of the financial value chain (Chiang, 2016; Akeem, 2015). It is therefore expected that an improvement in professional scepticism keep audit quality on the high side and vice versa (Alwan, 2021; Alrshah, 2015). The International Standard on Auditing (ISA) 240 stresses the duty of assurance providers in the audit of a financial statement regarding fraud and financial crimes. According to the ISA, it is not the duty of the assurance provider to detect financial fraud and malpractices. However, he is saddled with the responsibility of setting up an audit process that is robust to the detection of crime (Bala et al., 2018; Bills et al., 2016). The ability to exercise this is dependent on auditors' professional judgement to utilise risk assessment, control evaluation, investigative accounting and data analytics that expose criminal acts of perpetrators (Drogalas et al., 2017; Bryan & Reynolds, 2016).

Traces of divergence in norms, irregular tendencies, outliers, uncommon flows and inaccuracy in the documentation are red flags of fraudulent financial practices (Hassan & Musa, 2023; Apandi, Maruti & Sinaga, 2022; Efiang, 2018). Audit risk will be at the barest minimum while the positive reputation of the organisation will be sustained if assurance providers keep an alert mind in the process of auditing public companies. Previous theoretical literature underscores that professional scepticism can be viewed from the angle of the auditor's experience, motivation and trait (Johari et al., 2022; Jerry & Saidu, 2018; Kim & Trotman, 2015; Fullerton & Durtschi, 2004). Experience is important since it guards the auditors on how to handle audit assignments in line with professional standards and best practices (Musa et al., 2021; Lamba et al., 2020). As for auditor motivation, it signifies the complexities of audit assignments based on client activities (Ogungbade et al., 2021; Nigrini, 2012). Audit traits are the characteristics and specific features of audit firms undertaking the engagement (Ratna & Anisykurlillah, 2020; Nwanyanwu, 2017). These factors are captured empirically using years in assurance services, the number of joint arrangements (subsidiaries and associates) in the client and the dichotomous variables of the big 4.

Theoretical framework

This study integrated two basic theories to leverage the link among variables employed. This includes the agency theory and the fraud triangle theory. The combination of these theories serves as a framework underpinning this research study.

Agency Theory

The foundation of auditing has a strong relationship with agency agreement. It was highly popularised by Jensen and Meckling (1976). The theory assumes that the principal gives incentives through monitoring procedures which make the motive of the two parties to align, and assist in moderating conflict of interest (Payne & Petrenko, 2019). Other underlining assumptions of the theory are selfish interest, the existence of information asymmetry, risk aversion, cost of monitoring and contractual arrangement. Practically, applying incentives to moderate the conflict of interest proves abortive as its dark side outweighs the bright side. In addition, integrating audit committees and other regulatory requirements does not have a lasting effect as perpetrators collaborate to disrupt the financial process and commit fraud.

The application of this theory to the subject matter of this research implies that an auditor's selfish interest in giving professional judgement plays a major role in dictating the quality of the audit process (Udeh & Nwadiolor, 2016). It could also be inferred that assurance providers should pay attention to undisclosed information by management and its effect on misrepresentation (Ugwu et al., 2020). In addition, auditors can mitigate principal costs through the demonstration of professional scepticism in fraud reduction. Regarding conflict management, auditors are expected to prioritise objectivity over client pressure (Uthman, 2021).

This theory was attacked by the fact that it simplified the complex nature of agency contracts implying that auditors' work is not solely for shareholders. Other shortfalls of the theory include non-consideration of ethics and morals, static assumptions, rationality and difficulty in contractual solutions (Uvaneswaran & Shikur, 2022). However, these shortcomings do not limit this study. By focusing on auditors' traits, experience, and motivation as proxies for professional scepticism, the research moves beyond the narrow shareholder-centric perspective of agency theory. It addresses ethical considerations and practical aspects of auditing and also ensures a comprehensive examination of how professional scepticism impacts audit quality. Thus, the study's approach incorporates broader and more dynamic factors, which effectively mitigate the limitations of agency theory. Also, the introduction of control variables of tenure, auditor change and regulatory measures help towards overcoming the agency's shortcomings by making this study a robust solution to the challenges.

Fraud Triangle Theory

This theory was overrated by Donald Cressey in 1953. It explored the landscape of crime and white-collar embezzlement to know the reason behind betrayal by a personality in a trusted position. He posited that three factors are constant in every case of financial malpractice (Aguilar Solano, 2020). They include pressure, opportunity and rationalisation. Pressure are motivations that drive corrupt practices while opportunity is a weak control measure that allows a chance of committing fraud. A rationalisation is an ethical justification for funds stolen. These three independent concepts referred to as triangles formed the basic assumptions underlying the theory.

Specifically, the theory applies to the study of auditor's professional scepticism. Assurance providers must be alert to the opportunity for financial misstatement (Huber, 2017). Weakness in internal control, lack of oversight and inability to separate duties are potential determinants of fraud (Lokanan, 2018). From another angle, loan repayment, earnings management and financial hardship should be looked into by assurance providers as they are incentives causing fraud and employee crimes (Schuchter & Levi, 2016). Auditors are to investigate rationalisations to justify crime including. Inconsistencies, deviations and unusual activities should be followed with queries and confirmation to arrive at the actual truth. Risk assessment and other strategies to detect crime are also areas to be addressed to enhance professional scepticism and improve audit quality in the financial services sectors of the Nigeria Exchange Group (Dong et al., 2020).

Simplicity, proactive power and individual factors are limitations to the application of this theory to modern-day auditing and financial crimes. The study's examination of professional scepticism about audit quality effectively addresses the limitations of the fraud triangle. By exploring auditors' traits, experience, and motivation, the research provides a critical analysis that extends beyond the fraud triangle's simplistic framework. Additionally, it incorporates proactive measures to address income smoothing and considers broader systemic factors, thereby offering a comprehensive view of how professional scepticism impacts audit quality. Finally, consideration of firm characteristics such as size and level of debt represented by gearing act as a counter-check for the limitations observed in the theory.

Empirical Pieces of Evidence

The association between professional scepticism and audit quality have been studied in past literature including its interconnection with fraud detection. These studies used various dimensions of professional scepticism, and cut across several sectors and countries. The scholars investigated determinants and factors influencing professional scepticism while engaged with an assurance client.

In the empirical findings of Musa et al. (2021), variables such as size, risk, profitability, reputation, trait and time lag were identified as factors significantly causing variation in the level of audit quality when the financial sector is examined. The study leveraged the agency theory and the economy theory of product differentiation to explore the changes in audit quality based on several measures of professional scepticism in the Nigerian financial services sector. The usage of the static regression model suggested a strong link among variables of professional scepticism, fraud detection and audit quality. In a similar study conducted by Sulaiman et al. (2023) in the financial sector of the NGX, global standards and crisis periods were captured as variables dictating the level of audit quality in Nigerian banks and insurance firms. The study spans from 2006 to 2022 using both discretionary accruals and expenses to proxy audit quality. The study seeks to observe the relationship between financial malpractices and audit quality present in quoted companies.

With the aid of a longitudinal approach, Bryan and Reynolds (2016) identified audit tenure as a strong factor which impedes the independence of auditors. They perceive a higher risk of audit failure and misstatement in areas with extended audit tenure signifying auditor change guarantee improves professional scepticism. However, Alrshah (2015) study failed to clarify if long tenure causes the degree of scepticism to fall, or if the presence of interactions synergizes with the variation in audit quality. He employed a regression analysis to establish the real relationship among fraud detection, audit quality and professional scepticism. In a quantitative research study carried out by Lamba et al., (2020), auditors' independence was identified as a determinant of professional scepticism and audit quality in the Indonesia Inspectorate of Regional Government. Specifically, independence and ethics increase professional scepticism as audit quality is not significantly driven by professionals. This study was based on responses to the questionnaire filled out by auditors in Indonesia in a purposive approach.

In a sample of 39 auditors from 8 firms of chartered accountants in Makassar City, Tjan et al. (2024) observed the theoretical association among independence, scepticism and quality of audit using audit fees as a moderating variable. After conducting various tests on validity, reliability and multiple linear regression, it was found that professional scepticism and auditor independence have a direct causal link with audit quality. Variables such as time, workload and trait were identified by Hai et al. (2020) in their study carried out in Vietnam. The study employed the Structural Equation Model (SEM), Explanatory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) to x-rayed the causal link among

effective factors determining audit quality and professional scepticism using 513 auditors sampling on purposive method. It was found that knowledge and experience are drivers of professional scepticism and audit quality. The study recognises that characteristics and incentives do not cause variation in audit quality when variable significance is considered.

Scholars like Musa et al. (2020) and Deis and Giroux (1992) overrated the opinion that multinational assurance providers are sceptical and deliver quality audit work based on experience and reputation. This justifies that an auditor's resources and expertise assist in building a strong curious mind while undertaking audit work. Conversely, Bills et al. (2016) celebrated the view pointing to the non-significance of the Big 4 dichotomy in the study of fraud detection and professional scepticism.

From the point of view of Udeh and Nwadiolor (2016), the regulatory procedure carried out by government agencies and compliance teams of professional bodies is of paramount significance in the study of fraud and professional scepticism. They employed a structured questionnaire to test the efficiency of market regulators in the fight against corruption present in public companies. In the end, a mix of views was arrived at after relevant diagnostic tests were done. The empirical evidence of Mat et al. (2021) found the significance of professional scepticism in improving the quality of earnings management audits. Additionally, they object to the significance of fees and reputation in audit quality modelling. The findings were based on the sampled big 4 and non-big 4 assurance providers after various data analyses were carried out. In a similar vein, competence and integrity were statistically useful in the study of Apandi et al. (2022) carried out on 45 internal auditors in West Bandung Regency with the aid of multiple regression estimates.

Research Gap

Several empirical investigations have been carried out on determinants of audit quality and the association among variables affecting fraud detection in the globe. However, certain loopholes are yet to be covered to be abreast of present realities.

The study of Musa et al. (2021) and Musa et al. (2020) failed to capture audit quality correctly, as the total amount of money spent on assurance provision (audit fee) was utilised, and it is not a reasonable measure for quality audit in the present situation surrounded by fraud and financial mal-practices. The amount collected by assurance providers cannot translate to fraud measurement. Sulaiman et al. (2023) study considers only global standards and periods of crises, which are not auditors-specific variables. Though earnings management was employed in their study, a conflicting result of discretionary expenses and accruals left users in the dilemma of the real nexus among audit quality measures. Bryan and Reynolds (2016) and Alrshah (2015) only consider auditor change and tenure, which are both determined by the assurance client, while scepticism is not captured by the variables adopted. Similarly, the findings of Lamba et al. (2020) employed a questionnaire approach with a focus on the government agency, which differs and is incomparable with the public entities. Tjan et al. (2024) findings pay attention to a few assurance providers aside from the employment of a few variables of scepticism. The study of Hai et al. (2020) uses purposive sampling, signifying it is non-generalisation. Udeh and Nwadiolor (2016) and Mat et al. (2021) made generalisations without capturing audit-specific metrics.

This research work filled the aforementioned gaps present in the literature by focusing on detailed auditor attributes that provide a more granular perspective to address this gap and offer insights into how different factors contribute to or detract from effective auditing. Secondly, this study's use of income smoothing as a proxy for audit quality offers a novel approach that can fill this gap, providing a more precise measure of how professional scepticism influences auditing outcomes beyond conventional metrics. Lastly, by examining how these broader factors affect the relationship between professional scepticism and audit quality, this study can contribute valuable insights into the complex dynamics of auditing practices and highlight areas for further investigation.

Methodology

Research Design

Based on the peculiarity of this study which sought to explore the impact of professional scepticism metrics on audit quality and fraud detection, an ex-post facto design was adopted based on the principle of suitability. The design is appropriate as this study relies on past data to establish a link among variables of interest. The strategy is in line with the positivist school of teaching that investigates scenarios by collating data for analytical review.

Sampling and Scope of Study

The entire population of this study is the total firms quoted in the financial services sector of the NGX. The sector comprises banks, insurance companies and fund administrators. As it is obvious that 100 per cent coverage may be difficult to attain, this study utilised the simple random sampling approach to select twenty-five (25) firms among the total forty-nine (49) financial services firms. This study employed Yamane's (1967) formula for sample size determination, which is expressed as:

$$n = \frac{N}{1+N(e^2)}$$

Where n is the sample size, N is the total population, and e represents the margin of error. Using a 90% confidence level and assuming a Precision of 10%, this formula was applied to calculate this study's sample size. Yamane's formula is widely accepted in academic research for its simplicity and efficiency in determining an adequate sample size that balances precision and practical constraints. It provides a straightforward way to ensure the sample is large enough to yield reliable and generalizable results while being manageable in terms of data collection and analysis.

This study collated data ranging from 2012 to 2022 based on the convergence period, data availability, and regulatory reliability. The audited financial statement was accessed from the website of the Nigeria Exchange Group while Dataset was extracted for proper analyses. Assurance firm-specific variables were taken from the auditor's website for accurate investigation during the year under review. This study proposed a direct association between variables of study except for complexities and tenure.

Modelling and Estimation Procedure

The theoretical model of this research work was premised on the agency theory and the fraud triangle theory. Empirically, the studies of Sulaiman et al. (2023), Johari et al. (2022), Agrawal et al. (2021) and Lamba et al. (2020) were considered in building the econometric model of this research work. Below is the model specification;

$$AQ_{it} = B_0 + B_1AE_{it} + B_2AM_{it} + B_3AT_{it} + B_4AN_{it} + B_5AC_{it} + B_6RM_{it} + B_7CS_{it} + B_8CL_{it} + U_{it}$$

Where:

AQ = Audit Quality of a firm proxied with the earnings management model through the formula below:

$$EM = \frac{TA}{REV} = B_0 + B_1 \frac{(\Delta REV - \Delta REC)}{REV} + B_2 \frac{(\Delta EXP - \Delta PAY)}{REV} + B_3 \frac{(\Delta DEP - \Delta PPE)}{REV} + \varepsilon$$

Where: EM is Earnings Management, TA is Total Asset, REV is Total Revenue, REC is Receivable, EXP is Expenses, DEP is Depreciation, and PPE is Property, Plants and Equipment.

AE = Auditor Experience of a firm.

AM = Audit Motivation of a firm.

AT = Auditor Trait of a firm.

AN = Audit Tenure of a firm.

AC = Auditor Change of a firm.

RM = Regulatory Measure of a firm.

CS = Company Size of a firm.

CL = Company Leverage of a firm.

β_0 = Intercept Parameter

$\beta_1 - \beta_8$ = Slope Parameters

$U_{it} = \mu_{it} + \lambda_{it}$

μ_{it} = Cross-sectional Changes

λ_{it} = Stochastic Term

Auditor experience is measured by the number of years an audit firm has been engaged in assurance services. This is determined by comparing the current year with the firm's year of establishment. The rationale for this measurement is that it reveals the effect of growth in professional services on the level of engagement undertaken by the audit firm, as knowledge gained from previous years' assignments should enhance auditors' scepticism. Audit motivation is proxied by the total number of joint arrangements reported by subsidiaries and associates of the individual unit in the cross-sections. Smaller engagements are believed to motivate assurance provisions, as they can be completed in a shorter period.

Conversely, larger engagements may demotivate auditors due to the increased workload. Auditor traits are assessed using the multinationalism dichotomy of the Big 4. In this measure, multinational Big 4 auditors are assigned a value of 1, while non-Big 4 auditors are assigned a value of 0. These measurements align with previous studies by Sulaiman et al. (2023), Johari et al. (2022), Agrawal et al. (2021), and Lamba et al. (2020).

Additionally, tenure is defined as the number of years an audit firm remains with an assurance client. Although longer tenure signifies familiarity with the client, it may also indicate a lack of auditor independence, which could affect scepticism. Auditor change is coded as 1 in the year it occurs and 0 otherwise. The practice recommends that changing auditors can improve independence, as the new auditor will act diligently and might uncover issues overlooked by the outgoing auditor. Regulatory measures are assessed by the number of audit committee meetings held in a fiscal year. More frequent meetings are believed to enhance discussions on achieving audit quality. Total assets and the ratio of debt to equity are used as control variables to moderate the influence of the independent variables on the dependent variable. These are also based on the findings of Musa et al. (2021), Musa et al. (2020), Lamba et al. (2020), and Kim and Trotman (2015).

The inclusion of control variables of mechanism (tenure, change and audit meeting) and firm-specific attributes (size and leverage) were justified based on their identified influence in past literature as potential determinants of professional scepticism. However, they were carefully selected based on their theoretical relevance and empirical evidence linking them to audit quality. By incorporating these controls, the study aims to provide a clearer understanding of the unique contribution of professional scepticism to audit quality. A proper statistical procedure is employed to ensure that the effects of the main explanatory variables are not diluted by the inclusion of control variables. In addition, they allow for a more accurate assessment of the relationship between professional scepticism and audit quality by accounting for various factors that could influence audit outcomes thereby avoiding omission variable bias.

The study employed the static regression method to establish the relationship among variables. The procedure began with the pooled OLS estimation after which the Breusch and Pagan Lagrange Multiplier (BP-LM) was carried out. The output of the BP-LM test gives direction as to whether pooled OLS is appropriate, or the estimation of the fixed-random effect. This was followed by the Hausman (1998) test to validate the hypothesis of cross-sectional homogeneity. The procedure also encompasses a post-estimation test of serial correlation and heteroskedasticity. Charts and summary statistics were also used to reveal trends for the period under review.

Data Analysis and Result Presentation

Summary Statistics

This is otherwise known as descriptive statistics. It relates the minimum value, average value, maximum value and the standard deviation around the Mean of the dataset. The essence of this is to reveal the trend in the employed variables of analysis while also giving clarity regarding the presence or absence of outliers or structural breaks in the collected data. Table 4.1 shows the summary statistics of the dataset.

Table 4.1: Summary Statistics

Variable	Observation	Mean	S. Deviation	Minimum	Maximum
AQ	275	-2.668	6.051	-4.519	53.794
AE (years)	275	39.273	17.789	5	65
AM	275	2.191	4.390	0	19
AT	275	0.736	0.443	0	1
AN (years)	275	3.018	1.761	1	8
AC	275	0.318	0.468	0	1
RM	275	3.555	1.105	1	7
CS (₦)	275	1.270	4.910	5.340	3.290
CL (%)	275	0.362	0.207	0.073	0.918

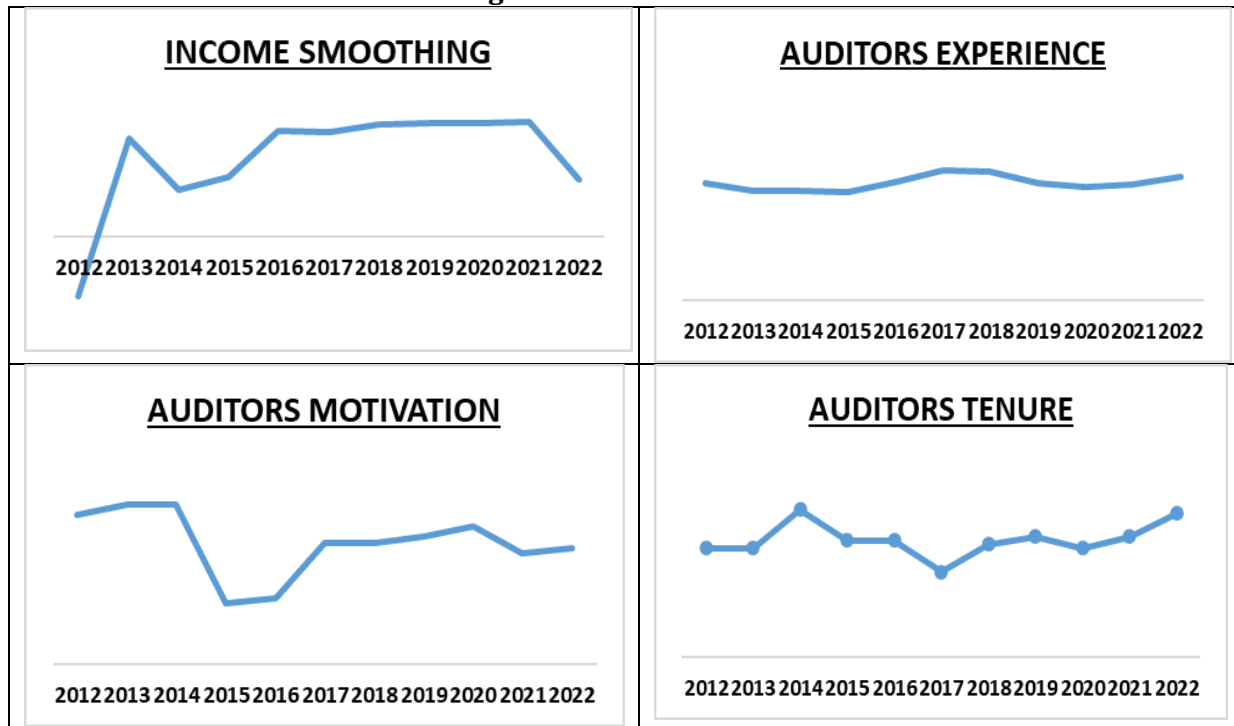
2024 Researcher's output

The summary statistics of the variables are depicted in Table 4.1. This includes the dependent variable of audit quality proxied with earnings management. The endogenous variable of professional scepticism is measured with experience, motivation and trait, and the control variables of tenure, auditor change, regulatory measure, company size and company leverage.

Variable Relationship with Time

This study assesses the influence of time factors on the variability of the employed variables. This is helpful in the assessment of volatility and the impact of learning and experience on the utilised variables of scepticism. Figure 1 shows the outcome.

Figure 1: Variable Trend



2024 Researcher Output

According to the visuals in Figure 1, the variables of this study exhibit different relationships with time trends. It is possible to investigate if the knowledge curve theory can set in to actualise the variation in the variables based on changes in the period. As for the dependent variable of audit quality (measured by income management), it rises at a particular time, falls at some periods, and rises again before the final decrease takes place. The experience of auditors was steady for the period, as the line chart revealed a small change based on the sum of years across the cross-sections. Regarding motivation, it projects a parabola shape as seen in the line graph. Similarly, tenure depicted an increasing-decreasing curve suggesting it is volatile for the period under review.

Test of Multicollinearity

In line with Gujarati (2009), the association between the independent variables can cause a spurious outcome leading to a wrong recommendation. The term multicollinearity is used to explain a case where some explanatory variables of a research model have a very strong correlation with one other. To avoid the occurrence of this incidence, both the correlation matrix and the variance inflation factor were used to validate the assumption of no collinearity. Table 4.2 shows the output of the correlation matrix.

Table 4.2: Correlation Matrix

	AE	AM	AT	AN	AC	RM	CS	CL
AE	1.0000	-	-	-	-	-	-	-
AM	0.1867	1.0000	-	-	-	-	-	-
AT	0.1281	0.2669	1.0000	-	-	-	-	-
AN	-0.0652	-0.1666	-0.0526	1.0000	-	-	-	-
AC	-0.0689	-0.0343	-0.0785	-0.4191	1.0000	-	-	-
RM	-0.2359	-0.2035	-0.0172	0.0466	0.0637	1.0000	-	-
CS	0.1969	0.0198	0.0514	-0.1099	0.0271	0.2723	1.0000	-
CL	-0.1268	-0.0049	0.2706	0.0792	-0.0332	0.0152	-0.2526	1.0000

2024 Researcher's output

Table 4.2 revealed that none of the independent variables exhibit a strong linear link with another implying a better OLS outcome. To validate this absence, this study adopts the variance inflation factor (VIF) to check the robustness of the result generated by the correlation matrix. Table 4.3 shows the findings of the VIF.

Table 4.3 Variance Inflation Factor

Variable	VIF
AE	1.19
AM	1.17
AT	1.21
AN	1.29
AC	1.25
RM	1.24
CS	1.27
CL	<u>1.20</u>
Average VIF	<u>1.23</u>

2024 Researcher's output

The summary of the VIF outcome shown in Table 4.3 is that none of the study variables has a very strong linear association with each other. This means that the OLS assumption of an unbiased estimator still holds.

Procedure for Model Selection

Baltagi (1995) and Gujarati (2009) opined that a static panel regression technique requires following a set of steps to be able to ascertain the model that is better and more consistent with the objective of the study. This is because a static model comprises the random-effect estimate, a fixed-effect estimate and a pooled OLS estimate. At the initial, a researcher should test for the homogeneity of the cross-sections. This is actualised with the aid of the Breusch and Pagan Langrage Multiplier (BP-LM) test. Thereafter, it will also be incumbent to test for the effect of the study regarding being fixed or random. This is validated through the Hausman (1998) test. Table 4.4 gives a summary of the post-estimation diagnostic test relied upon by this study.

Table 4.4: Model Selection Procedure

Test	Chi-square	P-value	Hypothesis	Decision
BP-LM	0.0000	1.0000	Reject Ho	Pooled OLS
Hausman	0.0000	0.0724	Accept Ho	

2024 Researcher's output

Following Table 4.4, the null hypothesis of heterogeneity of the cross-sections was rejected for the BP-LM test while the alternative hypothesis of random effect was accepted implying that the pooled OLS model of static analysis was accepted as the most consistent with the study objective.

Model Estimate

The link between audit quality and professional scepticism can be ascertained and observed through the regression technique. The pooled OLS estimate will be interpreted while the sign direction, coefficient magnitude, and variable significance will be given utmost priority. Table 4.5 displays the associations for this study's motive to be attained.

Table 4.5: Regression Estimate

Variable		Pooled OLS Result
	Constant	-2.178 (0.713)
Professional Scepticism	AE	-0.033 (0.003)*
	AM	-0.198 (0.158)
	AT	-3.647 (0.011)**
Control Mechanism	AN	0.518 (0.008)*
	AC	-0.743 (0.583)
	RM	-0.333 (0.005)*
Controls	CS	0.125 (0.009)*
	CL	4.621 (0.125)
Model Parameters		
	R-Square	0.321
	Adjusted R-Square	0.256
	Durbin Watson	1.829
	F. Statistics	1.73 (0.009)*

2024 Researcher's output

*The probability values of the estimate are reported in parentheses with * for 1% significant, ** for 5% significant and *** for 10% significant*

According to Table 4.5, the regression estimator reveals the coefficients and the probability values criterion for all the variables of the model. Variable grouping was also ensured in Table 4.5 to assist in the classification of association regarding the causal relationship among professional scepticism, audit quality and fraud detection.

Starting from the variable of professional scepticism, auditor experience displays a negative relationship with audit quality. This means that the more experience gathered by auditors, the lesser the income smoothing carried out by the companies quoted on the floor of the NGX. The implication of this is that as earnings management is reduced, audit quality will be increased in the sampled sector. This insight is based on the coefficient of -0.033 and a probability value of 0.003 which is significant at 5% yard-stick. In addition, the table reveals that professional scepticism in the Nigerian financial sector has increased fraud detection for the period under study due to the number of years spent by the assurance providers in audit practice.

Audit motivation impacts negatively on profit smoothing implying that if auditor receive more workload, it will improve their alertness in providing assurance services leading to an upward shoot in the audit quality. The coefficient of -0.198 reveals that a unit increase in the number of joint arrangements of the auditee facilitates professional scepticism leading to higher quality of assurance provision. This result is not significant as the p-value was 0.158. It should also be noted that this finding implies that an increase in demotivation of an audit staff promotes auditor professional scepticism.

Audit trait which is measured with the class of assurance provider relates an inverse variation with audit quality meaning engaging a Big 4 firm increases professionalism which later threatens fraud perpetration. The coefficient shows that engaging the services of the multinational Big 4 firm improves professional scepticism, reduces fraud and invariably pushes audit quality higher. The value of the coefficient suggests that fraud and corruption in the financial services sector will fall by 3.647 if a multinational firm is engaged in an audit assignment. This also points to the expertise and access to reputable training of the big 4 firms in the Nigerian audit market. In summary, professional scepticism coefficients suggest that audit traits contribute more to audit quality than other variables as it shows a higher value of coefficient than others.

The second aspect of the explanatory variables observes the link between control measures as it moderates the influence of professional scepticism on audit quality and fraud detection. Auditor tenure with the auditee reveals a positive and significant influence on audit quality implying that the more familiarity created by engagement tenure, the higher the risk of audit failure. The study implies that if an auditor spends more time with an auditee, familiarity will make the financial statement prone to fraud while audit quality will suffer to the tune of 0.518. In contrast, the replacement of existing auditors suggests improvement in audit quality as fraud is expected to fall by 0.743. The coefficient has a probability value of 0.583 which is insignificant based on selection criteria. This suggested that if an audit firm moves to another assurance client, the level of their scepticism will rise leading to more strength in handling fraud and income smoothing in the Nigerian business space. The last control mechanism is the regulatory measures of audit meetings of committees set up to moderate the relationship between shareholders and the board of directors. The variable depicts a coefficient of -0.333 which means an increase in committee meetings for an accounting period reduces fraud risk while audit quality will improve significantly based on the 0.005 p-value. Judging by the hugeness of the coefficient, the

replacement of the auditor variable contributes more to improvement in audit quality for the selected financial services firms listed on the NGX.

The other two variables of this study are the company size and leverage. As for the size, it reveals a significant positive relationship with audit quality suggesting that the bigger the size of the auditee, the more attention is paid to achieving audit quality. Surprisingly, firm leverage exhibits an insignificant direct association with earnings management. This shows that the more the accumulation of debt capital, the larger the perpetration of fraud leading to poor audit assignment.

The model parameters of R-square, adjusted R-square, Durbin Watson and the F-statistics all display the relevance and validity of the model concerning the relationship among professional scepticism, audit quality and fraud detection. The R-square of 32% indicates a good contribution of the explanatory variables to the explained variable. From the result of the F-statistics, a probability value of 0.009 validates the significance and fitness of the model variables. The Durbin-Watson statistic indicates that the results of this study are free from serial correlation.

Post Estimation Diagnostic

It may be misleading to rely on the output of a regression analysis if certain tests were not conducted. To avoid a wrong reliance on a result that suffers from incompleteness, this research work tested for the existence of heteroskedasticity and auto-correlation of the error term. The existence of this problem makes the static estimator unreliable and misleading. Table 4.6 shows the value of the post-diagnostic tests carried out to ascertain the validity of the unbiased estimator.

Table 4.6: Post Estimation Validity

Test	Chi-square	P-value	Null Hypothesis	Decision
Heteroskedasticity	233.71	0.1206	Accepted	Absent
Auto-Correlation	8.014	0.0059	Accepted	Absent

2024 Researcher's output

Table 4.6 projects the chi-square and the p-values of both auto-correlation and heteroskedasticity tests. In specific terms, the null hypothesis of no heteroskedasticity was accepted based on the p-value of 0.1206 implying the variance of the error term is homoscedastic. Similarly, this study observed that the residual of the model is not serially correlated and that reliance can be placed on the regression estimate. The above analogy points to the absence of all hinders to the efficiency of the regression estimator.

Discussion of Findings

This section of the research relates the objective of this study with the research findings while a comparison is made with what was obtainable in the empirical literature and theoretical frameworks.

Audit Experience and Audit Quality

This study debunks the null hypothesis of no significant influence of auditor experience on audit quality and fraud detection at a 5% level. The study found that improvement in the quality of audit services present in the financial sector of the Nigerian capital market can be traced to the experience and expertise of audit firms saddled with the responsibilities. This finding is based on the negative impact audit experience displays with income management and fraud. When this finding is viewed within the concave of the past theoretical frameworks, it goes in line with the agency theory which holds the view that a monitoring mechanism should be installed by the principal to monitor the activities of the agent. In this context, audit quality has been fully ensured in the financial services sector to foster a strong safeguard against fraud. This study inferred that the auditor in the financial services sector has been able to moderate the affairs between the assurance client and the shareholders of the client. Similarly, Musa et al. (2021), Hai et al. (2020), and Bryan and Reynolds (2016) study support the empirical observation pointed out by this study as a clear and unidirectional causality was seen from the coefficient of audit experience. However, this study, is somewhat congruent with the findings of Mat et al. (2021), Apandi et al. (2020), and Alrshah (2015) who gave an unclear direction on the association between professional scepticism and audit quality. The reasons for this could be traced to several factors. It could emanate from the various training embarked upon by assurance providers in the sector, Invariably, the system of promotion in most audit firms allows for experience growth during the career channel. This system begins with an audit trainee, to an associate, who transforms into a manager before the final cadre of partners.

Audit Motivation and Audit Quality

This study finds evidence to imply that an increase in audit workload which is expected to demotivate the auditors has surprisingly improved the inquisitive mind to probe susceptible activities and reduce fraud perpetrators' activities. This study accepts the null hypothesis of no correlation between audit motivation and fraud detection based on the significance of the variable. This finding is against the fraud triangle hypothesis that opines that the exact cause for fraud perpetration is the inability of the assurance provider to put on the garment of professional scepticism in the audit of a financial statement. Similarly, the fraud triangle framework advocates for the presence of pressure, opportunity and rationalisations as the major causes of fraud that endanger audit quality. Deis and Giroux's (1992) study on the determinant of fraud in corporate organizations pointed at the perceived havoc caused by the concentration of audit work and busy periods on audit quality leading to poor enquiry mind for the detection of corrupt practices. Additionally, Tjan et al. (2024), and Bills et al. (2016) are partly supporting the idea of this study as no relationship was observed. The major cause of this outcome is not far fetch, it may arise based on the busy schedule of most audit firms as a result of loads of work during the busy era. Also, eagerness to file a statutory report to regulatory authorities and the fare of paying fines may stimulate the interest in scepticism by assurance providers. It could also imply that audit sampling is put to use on areas that require 100% check by the audit firms.

Audit Trait and Audit Quality

The null hypothesis of no association with audit traits was rejected implying that this study finds evidence of a strong association between engaging multinational assurance providers and professional scepticism in the business space of the Nigerian economy. The negative coefficient obtained by this study shows that enquiry mind to detect fraud in the financial sectors has improved the quality of audits. This insight emanated from the belief that as a multinational firm is engaged for an audit service, they domesticate their expertise and technical know-how in the assurance service leading to the assessment of risk areas of the client business. Subsequently, audit quality rises significantly as a result of thorough checks. The findings substantiated the work of Sulaiman et al (2023), Lamba et al. (2020), Musa et al. (2020), and Udeh and Nwadiolor (2016) who held the view that effectiveness on the side of multinational audit firms in the upholding of control and regulatory framework on a nation causes downward pressure on the risk of fraud perpetrators. As for the link with the theoretical literature, this study provides academic points for the justification of the agency theory and the fraud triangle theory. This became obvious as the theory purported that an auditor's decision and judgement are usually navigated by multinationals to overcome fraud and profit smoothing. This finding may be based on the reputation built by multinationals in the audit market. Reputation assists them in navigating salient areas of audit and query figures that are not posted in line with accounting standards. Consequently, wrongly posted transactions are corrected based on the adjustment made. They also insist that necessary written representations should be provided in case of disagreement on a particular transaction.

Conclusion

Based on the findings of the study, it was ascertained that auditor scepticism contributes to the audit quality of selected financial services companies in Nigeria. It was also concluded that the presence of fraud and other profit management practices has disappeared in the companies listed in the financial sector of the NGX as a result of high-quality audit services performed by the assurance providers. Similarly, when individual components of auditor scepticism are considered, it was concluded that experience and trait impact significantly on detection of fraud as a result of misstatement and error. From the aspect of the control mechanism put in place, Audit tenure and regulatory measures contribute to the audit quality of listed financial companies on the floor of the NGX. This implies that compliance with financial reporting standards, audit standards, corporate governance standards and other regulations improves the quality of audit standards.

This study discovered that professional scepticism enhances audit effectiveness and detects financial misstatements, which is closely linked to both agency theory and the fraud triangle theory. Agency theory emphasizes that scepticism helps auditors effectively monitor management and safeguard shareholder interests. The fraud triangle theory highlights that scepticism mitigates the risk of fraud by addressing opportunities and rationalizations for unethical behaviour. It thereby suggests high levels of scepticism among auditors as crucial for improving audit quality, guiding better auditing practices, and reinforcing regulatory policies, ultimately enhancing market integrity and transparency.

Based on the conclusion of this study, the following recommendations are provided: Audit firms should pay appropriate consideration to factors that impact the quality of professional services rendered. These include experience and expertise, specialization and tenure, complexities and regulatory framework. This is due to the significant roles played by these factors in the sustainability of audit quality. However, less attention should be paid to the number of joint arrangements possessed by assurance clients. Both in-house and external sources of training should be adopted to upskill the required audit staff while integrity and professionalism should be the watchword of the auditor. Attainment of this will sustain the reputation and brand name built for years in the audit market.

Regulatory authorities such as the FRCN, SEC, NGX, Institute of Chartered Accountants of Nigeria (ICAN) and Association of National Accountants of Nigeria (ANAN) should constantly oversee the activities of both parties (auditors and auditees), compliance with accounting and audit standard should not be optional in the audit of limited liability companies, occasional revision should be done to standards, and proper channel of licensing should be adopted in dealing with firms of chartered accountants. Additionally, surprise surveillance should be carried out to curtail the inactions of some assurance firms. This will ensure no damage to the accounting profession while the interest of both agent and principal will be protected. It will also guarantee the independence of auditors in the engagement practice.

The board of directors of companies in the financial services sector should involve internal control procedures as a system to corroborate the work of the external assurance providers. Additionally, a thorough analysis should be made before an audit firm is changed as familiarity threat and understanding of the risk involved in the sector of the client remain two extreme factors to x-ray. This is expected to reduce the risk of audit failure and curtail insiders from leveraging information to extort other stakeholders. Audit quality will improve and the overall objective of shareholders will be attained.

The finding of this study may not apply to other factors not included here or in countries outside the scope of Nigeria. In addition, this study is limited by the selection of the financial services sector implying that the application of the findings to the non-financial sector may be misleading due to differences in their structures and operations. Future studies should construct a dataset comprising several measures of audit quality in both the financial and non-financial sectors of the Nigerian economy. Variables like audit and non-auditee fees should be used as a robustness check while risk and foreign ownership should be considered by future studies. Future work should focus on cross-country studies where professional scepticism in different aspects of the world should be assessed based on the international standards of auditing.

References

- Abdelkarim, N., & Khaled, Z. (2020). Corporate governance and earnings management: Evidence from listed firms at Palestine exchange. *Asian Economic and Financial Review*, 10(2), 200-217.
- Ado, A. B., Rashid, N., Mustapha, U. A., & Ademola, L. S. (2020). The impact of audit quality on the financial performance of listed companies Nigeria. *Journal of Critical Reviews*, 7(9), 37-42.
- Agrawal, P., Birt, J., Holub, M., & van Zyl, W. (2021). Professional scepticism and the accounting classroom. *Accounting Education*, 30(3), 213-233.
- Aguilar Solano, M. (2020). Triangulation and trustworthiness: advancing research on public service interpreting through qualitative case study methodologies. *FITIS Pos International Journal*, 7(1), 31-52.
- Aisha, A. (2021). The impact of board of director characteristics on earning management in the real estate companies listed United Arab Emirates. *Academy of Accounting and Financial Studies Journal*, 25(1), 50-59.
- Akeem, L. B. (2015). The impact of auditing in controlling fraud and other financial irregularities. *International Journal of Empirical Finance*, 4(3), 147-164.
- Alrshah, A. M. (2015). An empirical analysis of audited financial statement's reliability: Mediating role of auditor quality. *International Journal of Finance and Accounting*, 4(3), 172-179.
- Alwan, S. K. (2021). Corporate governance mechanism as income smoothing suppressor. *Accounting*, 7977-986. doi:10.5267/j.ac.2021.1.010
- Apandi, H., Maruti, D. R., & Sinaga, O. (2022). The effect of competence, integrity, and scepticism of audit professionals on audit quality; Case study at the regional inspectorate of west bandung regency. *Central Asia & the Caucasus (14046091)*, 23(1).
- Bala, H., Amran, N. A., & Shaari, H. (2018). Auditor brand name and financial reporting fraud of listed companies in Nigeria. *Journal of Advanced Research in Business and Management Studies*, 11(1), 84-94.
- Baltagi, B. H. (1995). *Econometric analysis of panel data*. New York, NY: John Willey & Sons.
- Bills, K. L., Cunningham, L. M., & Myers, L. A. (2016). Small audit firm membership in associations, networks, and alliances: Implications for audit quality and audit fees. *The Accounting Review*, 91(3), 767-792.
- Bryan, D. B., & Reynolds, J. K. (2016). Auditor size and the cost of equity capital over auditor tenure. *International Journal of Auditing*, 20(3), 278-294.

- Chiang, C. (2016). Conceptualising the linkage between professional scepticism and auditor independence. *Pacific Accounting Review*, 28(2), 180-200.
- Deis Jr, D. R., & Giroux, G. A. (1992). Determinants of audit quality in the public sector. *Accounting review*, 462-479.
- Dong, N., Wang, F., Zhang, J., & Zhou, J. (2020). Ownership structure and real earnings management: Evidence from China. *Journal of Accounting and Public Policy*, 39(3). 106733.
- Drogalas, G., Pazarskis, M., Anagnostopoulou, E., & Papachristou, A. (2017). The effect of internal audit effectiveness, auditor responsibility and training in fraud detection. *Accounting and Management Information Systems*, 16(4), 434-454.
- Efiong, E. J., Bassey, B. E., Osadim, E. O., & Onyeogaziri, U. R. (2018). Audit Procedures in an Electronic Data Processing Environment: A Study of Selected Audit Firms in Nigeria. *Journal of Accounting and Financial Management ISSN*, 4(1), 2018.
- Evbuomwan, I. (2021). *Corporate governance and earnings management in listed Nigerian manufacturing companies*. M.Sc. National College of Ireland.
- Fullerton, R., & Durtschi, C. (2004). The effect of professional skepticism on the fraud detection skills of internal auditors. *Available at SSRN 617062*. Gujarati, D. N. (2009). *Basic econometrics*. New Delhi, India: Tata McGraw-Hill
- Hai, P. T., Toanc, L. D., Quy, N. L. D., & Tung, N. T. (2020). Research factors affecting professional skepticism and audit quality: Evidence in Vietnam. *International Journal of Innovation, Creativity and Change*, 13(1), 830-847.
- Hassan, A. O. & Musa, W. A. (2023). IFRS disclosure guideline and acceptability of financial reporting framework: Evidence from listed deposit money banks in Nigeria. Paper presented at the 8th ICAN International Academic Conference on Accounting and Finance, Enugu State, Nigeria.
- Hausman, J. A. (1998). Specification tests in econometrics. *Econometrica*, 46(6), 1251-1271. <https://doi.org/10.2307/1913827> 35.
- Huber, W. D. (2017). Forensic accounting, fraud theory, and the end of the fraud triangle. *Journal of Theoretical Accounting Research*, 12(2).
- Jerry, M., & Saidu, S. (2018). The impact of audit firm size on financial reporting quality of listed insurance companies in Nigeria. *Iranian Journal of Accounting, Auditing and Finance*, 2(1).
- Johari, R. J., Hati, T. M., & Sayed Hussin, S. A. H. (2022). Factors influencing auditors' professional scepticism: Malaysian evidence. *Universal Journal of Accounting and Finance*, 10(1), 243-253.
- Kim, S., & Trotman, K. T. (2015). The comparative effect of process and outcome accountability in enhancing professional scepticism. *Accounting & finance*, 55(4), 1015-1040.
- Lamba, R. A., Yohanes, C. S., Lamba, A., & Pattiasina, V. (2020). The effect of auditor independence and ethics on auditor professional scepticism: Its implications for audit quality in Indonesia. *International Journal of Innovation, Creativity and Change*, 12(8), 383-396.
- Lokanan, M. (2018). Informing the fraud triangle: Insights from differential association theory. *Journal of Theoretical Accounting Research*, 14(1).
- Mat, S. A., Mohamed N., Muhammad, K., Ghani, E. K., & Ali, M. M. (2021). The influence of auditors' reputation, auditors' fee and auditors' scepticism audit quality in earnings management. *Academy of Accounting and Financial Studies Journal*, 25(6), 1-11.
- Musa, W. A., Salman, R. T., Amoo, I. O., & Subair, M. L. (2020). Impact of firm's specific factors on audit fee of quoted consumer goods firms. *Corporate Governance and Sustainability Review*, 4(1), 47-55.
- Musa, W. A., Salman, R. T., & Amoo, I. O. (2021). Determinants of audit fees in quoted financial and non-financial firms. *Corporate Law and Governance Review*, 3(2), 30-40.
- Nigrini, M. J. (2012). *Benford's Law: Applications for forensic accounting, auditing, and fraud detection* (Vol. 586). John Wiley & Sons.
- Nwanyanwu, L. A. (2017). Audit quality practices and financial reporting in Nigeria. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 7(2), 145-155.
- Ogungbade, O. I., Adekoya, A. C., & Olugbodi, D. I. (2021). Audit quality and financial reporting quality of deposit money banks listed on the Nigerian Stock Exchange.
- Payne, G. T., & Petrenko, O. V. (2019). Agency theory in business and management research. In *Oxford Research Encyclopedia of Business and Management*.
- Ratna, T. D., & Anisykurlillah, I. (2020). The effect of experience, independence, and gender on auditor professional scepticism with professional ethics as moderating. *Accounting Analysis Journal*, 9(2), 138-145.
- Schuchter, A., & Levi, M. (2016). The fraud triangle revisited. *Security Journal*, 29, 107-121.
- Singh, N., Lai, K. H., Vejvar, M., & Cheng, T. E. (2019). Data-driven auditing: A predictive modeling approach to fraud detection and classification. *Journal of Corporate Accounting & Finance*, 30(3), 64-82.
- Soyemi, K. A., & Olawale, L. S. (2019). Firm characteristics and financial reporting quality: evidence from non-financial firms in Nigeria. *International Journal of Economics, Management and Accounting*, 27(2), 445-472.
- Sulaiman, E. A., Musa, W. A., & Kasum, A. S. (2023). IFRS and audit quality: A discretionary model approach. *Malete Journal of Accounting and Finance*, 4(1), 160-175.
- Tjan, J. S., Muslim, M., Alimin, A., Noch, M. Y., & Sonjaya, Y. (2024). Independence, professional skepticism, and audit quality: The moderating role of audit fees. *Jurnal Akuntansi*, 28(1), 40-60.
- Udeh, S. N., & Nwadior, E. O. (2016). Evaluation of effectiveness of internal audit in the Nigerian public sector. *European Journal of Business, Economics and Accountancy*, 4(3).



- Ugwu, C. C., Aikpitanyi, L. N., & Idemudia, S. (2020). The effect of audit quality on financial performance of deposit money banks (evidence from Nigeria). *Journal of Economics and Business*, 3(1).
- Uthman, A. B. (2021). *Impact of Accounting Regulatory Reforms on Audit Quality of Listed Companies in Nigeria* (Doctoral dissertation, Kwara State University (Nigeria)).
- Uvaneswaran, S., & Shikur, M. (2022). Public accountants' adherence to professional standards and accounting ethics. *International Journal of Research in Management*, 4(1), 15-22.
- Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper & Row.