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ACCOUNTING AND MANAGEMENT REVIEW

Vol. 4, No. 2, September 2024.

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## International public sector accounting standards and financial reporting quality of public sector in Nigeria

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### ABSTRACT

Financial reporting quality enhances accountability, openness and transparency in public sector, and builds trust in governance. Evidence from literature showed that poor quality of reporting in Nigeria public sector has contributed to mismanagement of funds, corruption and poor execution of projects. Research has shown that International Public Sector Accounting Standards have not been fully integrated into the transactions of government agencies. Government agencies are fundamentally different from business entities, and the goal of government accounting is essentially different. This created a number of concerns about the quality and usefulness of financial reports prepared and disseminated by public organisations. This study investigated the impact of IPSAS adoption on financial reporting quality in Nigerian public sector. The study adopted survey research design. The study population consisted of 190 civil servants and 129 sample size. The data for the study were collected through a validated and structured questionnaire. Data were analysed using descriptive and inferential (multiple regression) statistics. Findings showed that internal control mechanism ( $\hat{\beta}_1 = 0.182$ ;  $p = 0.005$ ), IPSAS adoption environment ( $\hat{\beta}_3 = 0.334$ ;  $p\text{-value} = 0.000$ ), transparency and accountability ( $\hat{\beta}_4 = 0.231$ ;  $p\text{-value} = 0.006$ ) had positive and significant impacts on FRQ in Ogun state ministries. However, audit committee had positive but insignificant impact ( $\hat{\beta}_2 = 0.012$ ;  $p = 0.897$ ). The F-statistic of 4.712 ( $p = 0.001$ ) implied that IPSAS adoption metrics jointly possess greater influence on FRQ of public sectors in Ogun State, Nigeria. Hence, the model is adjudged the best fit. More so, the constant term of 2.252 with p-value of 0.000 indicated that FRQ in Ogun state public sector had been in existence prior to IPSAS adoption. The study concluded that implementing IPSAS has considerably improved the quality of financial reporting in the Nigerian public sector. It is recommended that public entities should critically focus on the audit committee's independence, the development of public sector employees' skills, and the implementation of audit committee recommendations.

Keywords: IPSAS adoption, financial reporting quality, Internal control mechanism, adoption environment, audit committee

### 1. Introduction

The need for government agencies to be truthful about all of their possessions and obligations has been brought to light by the ongoing global financial upheaval as well as the severe economic restrictions that several governments are facing. The accounting sector is always impacted by the historical change brought on by globalization. As a result, reconciliation of the accounting systems is successful in the current global era. It follows that no nation can independently meet its financial reporting requirements in order to thrive in the global economy and gain recognition on a global scale. As a result, universally accepted and understandable accounting standards are needed. In response to this requirement, International Public Sector Accounting Standards (IPSAS) were created (Tawiah, 2022). These standards are currently the focus of global public sector accounting transformation because they make it easier to coordinate and compare financial accounts using international best practices. In this vein, financial reporting quality enhances accountability, openness and transparency in public sector,

and builds trust in governance, however, evidence from literature showed that poor quality of reporting in Nigeria public sector has contributed to mismanagement of funds, corruption and poor execution of projects. Research has shown that International Public Sector Accounting Standards (IPSASs) have not been fully integrated into the transactions of government agencies.

As mentioned via IFAC (2016), IPSAS are extensively accepted, accrual-based worldwide accounting ideas that generate high-quality, monetary facts that will increase accountability and fosters public trust. The International Financial Reporting Standards (IFRS) for the public quarter are recognized as IPSAS. IFRS offers a clear and unique monetary overview of publicly traded corporations round the world through using accruals accounting as a substitute than money accounting (Ijeoma & Oghoghomeh, 2014). IPSAS ensures rigorous standards, permitting for the quicker shipping of credible economic statements. Credible economic statements enhance operational effectiveness and aid resource allocation efficiency. According to Ademola et al. (2017), adopting IPSAS gives most desirable monetary operations by means of boosting accountability and transparency. Furthermore, it directly uncovers economic misappropriations in the public sector, regardless of the complexity in the entity. For government-owned enterprises, for example, Australia and New Zealand switched from IFRS to IPSAS standards. The acceptance of IPSAS through South-East Asia and South America has induced different developing nations to follow suit. African countries are also trailing the blaze in adopting IPSAS. Rwanda, Tanzania, Uganda, Zambia, Algeria, Ghana, Nigeria, South Africa, Liberia, Morocco, and Mauritania are amongst the African countries that have embraced IPSAS. Nigeria, the greatest state in Africa, started the adoption of IPSAS in 2010 in line with the globalisation trend. This was once executed in an effort to enhance governance and reduce the perennial corruption that has plagued governmental institutions.

Despite the truth that IPSAS has been adopted through many nations, IPSAS implementation in Organisation for Economic Cooperation and Development (OECD) nations stays pretty low (IFAC, 2017). According to numerous researchers (Atuilik, et al., 2016; Omolehinwa & Naiyeju, 2015; Tikk, 2010; Tickell, 2010), terrible implementation is triggered through troubles which include exorbitant IPSAS set up prices and a scarcity of certified people amongst different things. IPSAS implementation continues to confront good sized difficulties notwithstanding the several seminars and workshops that have been undertaken to train practitioners and amplify public cognizance in order to facilitate easy transition to the IPSAS regime. It is against these backdrops that this study investigated the impact of IPSAS adoption on financial reporting quality of public sector in Ogun state, Nigeria. Although, many scholars have conducted researches in this area, the uniqueness of this study stems from its comprehensive coverage of the major drivers of effective IPSAS implementation. As a result, the following hypothesis was formulated and tested:

$H_0$ : International Public Sector Accounting Standards adoption has no significant effect on  
Financial Reporting Quality in Ogun State Public Sector.

## **2. Literature Review**

### **2.1 Conceptual Review**

#### **2.1.1 International Public Sector Accounting Standards (IPSASs).**

Countries across the world have developed their own financial reporting standards over the years. However, as globalisation advances and international trade and commerce grow, there is an urgent need for more uniformity in the standards used to prepare financial statements so that they are understandable and convey the same information to consumers regardless of their locations. The desire for uniform accounting standards was a primary motivator in the development of IPSAS for public sector financial reporting (Onwubuariri, 2012). IPSAS are the recommendations made by the IPSASB under the direction of the IFAC (Delloitte & Touches, 2013; IPSASB, 2008). IPSAS are standards that govern how transactions and events in general purpose financial statements must be recognised, measured, presented, and disclosed. In other

words, IPSAS are financial reports guideline for government agencies. The IPSASB oversees developing IPSAS. IPSAS was developed in the accounting industry to improve and standardise financial reporting in order to strengthen the accountability and openness of governments and their agencies (Deloitte and Touches, 2013; Ijeoma, 2014). The IPSASB publishes IPSASs that handle financial reporting on both the cash and accrual bases (Ademola, et al., 2017). IPSASB acknowledges, however, that for many governments, a cash-basis IPSAS is a more practical option (PWC, 2009). The IPSASB's major purpose is to ensure that financial statements are uniform in material and structure, permitting precise understanding of government resource allocation decisions and therefore increasing openness and accountability (Stephen, et al., 2012).

### 2.1.2 International Public Sector Accounting Standards adoption in Nigeria

According to Mhaka (2014), the Federal Executive Council of Nigeria approved the implementation of the International Public Sector Accounting Standards (IPSAS) and International Financial Reporting Standards (IFRS) for the private and public sectors in July 2010. The adoption intends to bring the country's accounting and financial reporting standards up to international standards. However, some stakeholders believe that the tools and tactics required to properly implement IPSAS in Nigeria's three tiers of government are still difficult. Mhaka (2014) further stressed that IPSAS is a positive development and an international best practise that has been adopted by the majority of developed countries. There is nothing wrong with Nigeria taking the lead in ensuring that all public enterprises in the country completely implement IPSAS. To improve the successful adoption and implementation of IPSAS in Nigeria, the FAAC Sub-Committee has produced guidelines for all government establishments in Nigeria. The guidelines cover such areas as uniformity in national chart of account and user manual for the chat, uniform accounting policies and budget templates that align with IPSAS cash basis

### 2.1.3 Benefits of Adopting and Implementing IPSAS.

IPSASs adoption provides various political and economic benefits. The following are the political advantages of adopting IPSASs as provided by Olanrewaju (2016):

**Accountability:** The IPSAS requirement for more disclosure in accounting reports increases government accountability.

**Openness:** Where IPSAS is used in the public sector, full openness has become a prerequisite.

**Improved Credibility/Integrity:** If the government makes the rules, then government accounting and reporting are meaningless. As a result, an organisation that will set the rules, such as IPSAS, is required.

**Political leverage:** A higher or legal body, such as the United Nations, may demand accounting information from the government.

**International Best Practices and Comparability:** The standard aims for international comparability of financial statements prepared in compliance with IPSAS. Comparable data supports stakeholders in determining how well their resources have been used.

**Greater Transparency:** IPSAS promotes complete disclosure, which is based on transparency, honesty and accountability. Greater accountability will arise from the greater disclosure, transparency, and comparability that IPSAS promotes in the public sector.

**Increasing trust in donor agencies and lenders:** The adoption of IPSAS increases the country's eligibility for financial assistance from government institutions, private sector financial institutions, and donor organisations such as USDP and USAID (IMF and World Bank).

**Improved service delivery:** Adoption of IPSAS will improve Value for Money (VFM) expenditure due to increased accountability and transparency. Adoption of IPSAS will ensure complete reporting of government financial positions and transactions.

**Improved public-private collaboration structures:** The public and private sectors can collaborate more successfully if they use the same set of accounting standards (IPSAS and IFRS).

**Economic leverage:** They are motivated by the prospect of receiving benefits commensurate with their position as independent nations. Governments that can be readily influenced financially are more likely to adopt IPSAS.

## 2.1.4 Financial Reporting Quality

The concept of financial report is wide, encompassing both financial information disclosures and non-financial information important for decision making. Financial report is the publication of financial statements and related information by a corporate organisation to third parties. The basic purpose of financial report is to provide high-quality data regarding reporting organisations so that prudent economic decisions can be made (Ulalya, et al., 2023). When making economic decisions (investments, credit decisions, and resource allocation decisions), present and potential capital suppliers, as well as other stakeholders, may benefit. It also provides information on how successfully the management team uses available resources and manages the business. Responsibility extends beyond the confines of a corporation's legal commitment to its shareholders. Of course, it considers the interests of people who are not already shareholders.

Financial reporting quality refers to the precision with which financial reports transmit information about a company's operations. Many definitions of financial reports have been documented, depending on the goals of each study. For instance, Ijeoma and Oghoghomeh (2014) define quality of financial reports as the extent to which the financial statements give honest and fair information about the underlying performance and financial condition. According to the International Accounting Standards Board, IASB (2008), the goal of financial reporting is to provide financial information about the reporting entity that is relevant to current and potential equity investors, lenders, and other creditors in making capital-provider decisions. The aim of financial accounting and financial statements, according to the American Institute of Certified Public Accountants (1970), is the provision of quantitative financial information about a business enterprise useful to statement users.

The role of financial report, on the other hand, is broader and aims to provide even-handed financial and other information that, when combined with information from other sources, facilitates the efficient functioning of capital and other markets and assists in the efficient allocation of the economy's scarce resources (FASB, 1978). To avoid poor quality and achieve their goal, financial reports must meet specific qualitative standards. Both the IASB and the FASB determined in their conceptual frameworks that adherence to objective and qualitative aspects of financial reporting information results in excellent quality (IASB 2008; 2010). The IASB defines qualitative qualities as the attributes that make financial information useful (2008). However, one ubiquitous constraint limits the availability of decision-useful information: the costs of providing information must be justified by its benefits (IASB, 2010).

## 2.2 Theoretical Review

This study was anchored on stakeholder theory.

### Stakeholder Theory

Stakeholder theory was propounded by R. Edward Freeman in 1984. Freeman originally detailed the stakeholder theory as a theory of organizational management and business ethics that addresses morals and values in managing an organization. Stakeholder theory has been described in several ways, including as a perspective, a collection of thoughts, words, and metaphors linked to the overarching purpose of maximising stakeholder value. Researchers and practitioners of stakeholder theory concentrate an emphasis on the collection of interests that supports all business value development. Since the 1980s, the theory's popularity has grown significantly, with researchers all over the world questioning the long-term viability of focusing on shareholders' money as the most fundamental goal of business. As stated earlier, Freeman developed the stakeholder theory of organisational management and business ethics, which tackles morals and values in organisational management, in 1984. His award-winning book *Strategic Management: A Stakeholder Approach* outlines and models the groups that are stakeholders in a firm, as well as describes and offers techniques for management to consider those groups' interests.

The idea has become an important consideration in the study of corporate ethics, serving as a foundation for future investigation and growth in the research and published work of many experts, including those listed on this website. Taking stakeholder interests into consideration in managerial decision-making, as described by Freeman (2009), provides better outcomes for all stakeholders since it recognises that stakeholder interests are mutual. If one stakeholder

promotes its own interests at the expense of others, the others will either withdraw their support or seek to establish a new network of stakeholder value generation. The stakeholder theory was developed on the basis of the organisational management study subfields of strategic organisational planning, systems theory, corporate social responsibility, and organisational theory.

Freeman (2009) investigates the genesis of the stakeholder notion, focusing on the Scandinavian contribution to early theory development. Rehnman coined the term shareholder (a straight translation of the Swedish term "intressent") in his 1964 book. The book includes the first published stakeholder map, as well as identification of many fundamental principles in stakeholder thinking, such as jointness of interests, cooperative strategic posture, and rejection of a narrow economic view of the organisation. The distinctions between the two approaches are numerous. Stakeholder theorists see profitability as an important goal, but do not consider shareholder interests to be more significant than those of other stakeholders (Freeman 2015). The shareholder viewpoint is commonly stated as Milton Friedman's approach, which can be summarised by his thesis that "the social responsibility of business is to increase its profit without deception or fraud."

Some interpretations of stakeholder theory believe that ethical business practises must consider stakeholders as aims rather than simply means. All company value creation operations require the willing cooperation of stakeholders in the enhancement of materials into products or services (Freeman et al. 2020).

### **2.3 Empirical Review**

This section examines previous researches that attempted to empirically validate the impact of International Public Sector Accounting Standards (IPSASs) on quality of financial reports.

#### **Evidence from Developed Countries**

Tawiah (2022) examined the impact of the International Public Sector Accounting Standards (IPSAS) adoption on governance quality using panel data from 107 developed and developing nations. According to the results of the univariate and multivariate analyses, IPSAS adoption has a positive and significant influence on governance quality, implying that IPSAS adoption fosters accountability and transparency between the government and its citizens. However, it was revealed that the favourable impact of adopting IPSAS is limited to underdeveloped countries.

Biondi (2016) developed a theoretical analysis of the accounting system developed and applied to the WGA (Whole of government accounts) by HM Treasury in the United Kingdom to address some representational concerns raised by IPSASs application of a balance sheet accounting approach to public administration, highlighting consolidation perimeter, current value measurement of assets and liabilities, and the case of public-private partnerships. It sheds light on the representational challenges produced by the adoption and modification of IFRS designed and issued for the private sector. According to the study analysis, the balance sheet technique used by UK public sector accounting and the IPSAS is incompatible with the economic, organisational, and institutional characteristics of the public sector. It may therefore, involve an inappropriate and misleading accounting representation.

Similarly, Laswad and Redmayne (2015) investigated the perspectives of public sector report preparers in Australia on the users of public sector reports and the usefulness of each financial statement for users, the suitability of the reporting framework for the public sector, the benefits and costs of reporting, and whether financial statements prepared by public sector entities are used in internal management decision-making. The study discovered that management is the primary user of public sector financial reports, the income statement is the most important financial statement, and Australia IFRS modified for public benefit entities is currently viewed as the best financial reporting framework for the public sector in Australia by the participants in this study.

#### **Evidence from Developing Countries**

Ulaya et al. (2023) investigated the impact of International Public Sector Accounting Standards (IPSASs) on openness and accountability in Tanzanian government organisations. The survey research design was used for the study with the assistance of 75 finance workers from the Ministry of Finance. The information for the study came from two primary sources. The survey

was aimed to collect data on the degree of transparency and accountability in Tanzania's public sector before and after the implementation of the IPSAS. The survey findings were then converted into a scale measurement model utilising the Likert 5-point scale. The Wilcoxon test tool was then used to examine the hypotheses. According to the study's findings, the introduction of International

Accounting Standards has greatly raised the level of openness and accountability inside Tanzanian government agencies. This is supposed to strengthen the country's financial reporting system and give decision-makers with more useful data. The study further notes that the International Public Sector Accounting Standards (IPSAS) implementation has boosted openness in Tanzanian public sector organisations and this will improve the country's overall financial reporting system. According to the report, the application of international accounting standards has strengthened accountability in Tanzanian public sector organisations.

Hamed-Sidhom and Loukil (2021) investigated the link between the implementation of International Public Sector Accounting Standards (IPSAS) and the perceived amount of corruption in emerging nations. It also examined the role of political stability in mitigating this relationship. The International Federation of Accountants (IFAC) approach for assessing country adoption status was utilised, and a panel regression analysis was used for 57 developing nations from 2016 to 2019. The findings show that the country's choice to implement IPSAS will not result in a reduction in the perceived level of corruption in the near future. Furthermore, it is clear that the level of corruption has no bearing on the relationship between the adoption of IPSAS and the perceived level of corruption. It was also discovered that, while political stability reduces corruption, it does not contribute to enhancing the effect of IPSAS implementation on perceived corruption levels. The research delves at the relationship between IPSAS adoption and country corruption levels.

Kharabsheh (2021) examined the impact of implementing international accounting standards (IPSAS) on financial performance in Jordan's public sector in order to modernise its accounting system and better control public funds. The study used descriptive and inferential methodologies. The study population consisted of 250 Ministry of Finance personnel, to whom 250 questionnaires were administered. 207 questionnaires were returned, accounting for 82.8% of the study's population. It was discovered that there is a role for implementing the IPSAS in modifying accounting standards and applying the accrual basis, as well as enhancing the efficiency of the Ministry of Finance and public sector performance. The study found that implementing the IPSAS has a role in modifying the policy of providing financial data and information. This demonstrates that the accrual basis of IPSAS achieves transparency, credibility, reliability, comparability, and full disclosure in financial statements.

#### Evidence from Nigeria

Egolum and Ndum (2021) investigated the impact of International Public Sector Accounting Standards (IPSASs) on the quality of financial reporting in the Anambra state public sector. The population component is made up of the 127 ministry employees while the sample size is the entire population. The instrument was validated using Cronbach Alpha formula and a coefficient value of 0.82 was achieved for internal consistency. The three hypotheses were evaluated using the Chi square statistical tool. The study found that adopting International Public Sector Accounting Standards increases accountability, openness, and reduces corruption among state officials. Also, Olola (2019) researched the influence of the International Public Sector Accounting Standards (IPSAS) on financial accountability in the Nigerian public sector. A questionnaire was used to collect data from departmental personnel of 18 local governments in Ondo State who had been randomly sampled for participation. The Likert scale was used to rank the questions. From the results of Pearson's Correlation Matrix and Multiple Regression analysis, IPSASs have been proved to have a significant and positive impact on Nigerian public sector ability to handle public funds effectively.

In the same vein, Nkwagu, Uguru and Nkwede (2018) investigated the effects of international public sector accounting standards on financial accountability in Nigeria. A total of 314 out of 1458 Accountants and Internal Auditors from the ministries of finance of Nigeria's south-eastern states took part in their study, which employed a survey design. The data was analysed using descriptive and inferential statistics. According to their findings, the implementation of IPSASs strengthens accountability in the Nigerian public sector because the standards paved the way for improved management of public expenditures. It also showed how the application of IPSASs open the way for efficient budget execution and checks for potential corruption in the Nigerian

public sector.

Ademola, Adegoke & Oyeleye (2019) assessed the impact of the International Public Sector Accounting Standard (IPSAS) on the financial accountability of a sample of local governments in Oyo State, Nigeria. Their survey approach was utilised to collect information from 105 accountants and internal auditors in a sample of selected local governments in Oyo State, Nigeria, using five-point Likert scale questionnaires. The chi-square analysis revealed that implementing IPSAS boosted accountability, openness, and lowered corruption in the selected local governments.

### 3. Methodology

This study employed survey research design with a focus on all ministries in Ogun State civil service, Nigeria. The study population is limited, and a total of one hundred and ninety (190) respondents with at least five (5) years of work experience were purposefully chosen for the study. These are the most senior practitioners in charge of IPSAS implementation. A random sampling technique was used to select the 129 respondents used as sample size. The data for the study was collected via a well-structured questionnaire. The 5-point Likert scale of strongly disagreed (SD), disagreed (D), neutral (N), agreed (A) and strongly agreed (SA) was logically employed.

#### 3.1 Description and Measurement of Variables

Table 1. Variable Description and Measurement

VARIABLES	Proxies/Labels	Measurement scale
INDEPENDENT	IPSAS ADOPTION	Internal Control
		Audit Committee
		Adoption Environment
		Transparency & Accountability
DEPENDENT	FINANCIAL REPORTING QUALITY	Timeliness (TML)
		Understandability (UND)
		Value Relevance (VR)
		Comparability (CMP)
		Faithful Representation (FR)
		Verifiability (VER)

Source: Authors' Field Report, (2023)

#### 3.2 Model Specification

In line with the objective of this study, which is to determine the effect of IPSASs adoption on quality of financial reporting in public sector in Nigeria and based on the method of data collection, this study adapted the model of Ochung (2017).

$$FRQ_i = \beta_0 + \beta_1 IC_i + \beta_2 AC_i + \beta_3 AE_i + \beta_4 TA_i + \varepsilon_i \quad (1)$$

Where FRQ is quality of financial report (dependent variable), TML (timeliness), UND (understandability), VR (verifiability), CMP (comparability), FR (Full representation), and VER (verifiability) are the components. IPSAS adoption (independent variable) metrics are IC (internal control), AC (audit committee), AE (adoption environment), and TA (transparency and accountability). The betas ( $\beta$ ) reflect the regression coefficients, while the subscript  $i$  represents the entity (Ministries).

#### 3.3 Method of Data Analysis

The data was analysed using inferential statistics. Inferential statistics involved the use of the conventional Least Square regression Analysis to test the hypotheses and determine the relationship between the variables under consideration.

#### 4. Data analysis, Results and Discussion of Findings

A questionnaire that sought respondents' opinions on "International Public Sector Accounting Standards on Quality of Financial Report in ministries in Ogun state, Nigeria" was drafted and administered on a randomly selected sample of 129 accountants and auditors in the ministries, with 121 (94%) duly filled and returned. The returned instrument was statistically analysed using Statistical Package for Social Sciences (SPSS) Version 23 (IBM Inc). The stated hypothesis in this research was tested using the significance of the multiple linear regression estimates as provided in table 2.

**Table 2:** Regression Coefficients [Dependent = Quality of Financial Reports]

Variables	Parameter	Coefficients	Std. Error	T-stat	p-value
(Constant)	$\beta_0$	2.252	.535	4.212	.000
Internal Control (IC)	$\beta_1$	.182	.064	2.839	.005
Audit Committee (AC)	$\beta_2$	.012	.091	.130	.897
Adoption Environment (AE)	$\beta_3$	.334	.077	4.338	.000
Transparency and Accountability (TA)	$\beta_4$	.231	.082	2.822	.006

**R**= 0.674; **R**<sup>2</sup> = 0.454; **Adj. R**<sup>2</sup> = 0.426; **F-Stat.** = 4.714 (p-value =0.001); **DW** = 2.102.

@ significance level of 5%.

**Source:** Researcher's Self Computation from Field Survey, 2023

$$FRQ_i = \beta_0 + \beta_1 IC_i + \beta_2 AC_i + \beta_3 AE_i + \beta_4 TA_i + \varepsilon_i \dots \text{Model 1}$$

$$FRQ_i = \beta_0 + \beta_1 0.182_i + \beta_2 0.12_i + \beta_3 0.334_i + \beta_4 0.231_i \dots \text{Predictive Model}$$

$$FRQ_i = \beta_0 + \beta_1 0.182_i + \beta_3 0.334_i + \beta_4 0.231_i \dots \text{Prescriptive Model}$$

From table 2, result indicated from the R value of 0.674 that there exist moderate positive relationship between the explanatory variables of internal control mechanism, audit committee, adoption environment, transparency and accountability and quality of financial reports in Ogun state ministries. The adjusted R<sup>2</sup> value of 0.426 indicated that 42.6% variation in quality of financial reports can be attributed to International Financial Reporting Standards adoption as measured by internal control, audit committee, IPSAS adoption environment and transparency and accountability. In addition, coefficients of the parameter estimate of internal control ( $\beta_1 = 0.182$ ) indicated that a unit increase in internal control mechanism of the public sector tends to 0.182 incremental rate in quality of financial reports.

This is as well attributed to audit committee, adoption environment and transparency and accountability as their unit increase tends to 0.012, 0.334 and 0.231 respectively increase the probability distribution of the quality of ministries financial report. Variables of internal control mechanism, adoption environment and transparency and accountability of IPSAS were found to be statistically significant (p-values < 0.05) excluding audit committee (p-value 0.897 > 0.05 level of significance). Insignificance of the audit committee might be as a result of insufficient compliance of auditors to fully adopt IPSAS for quality of financial report in the ministries. Perusing the direction of the coefficients as well indicated that the independent variables were positively inclined.

#### 4.1 Test of Hypothesis

From Table 2, the regression results show that IPSAS adoption internal control mechanism which is one of the constructs of IPSAS adoption has a positive and significant impact on the quality of financial reports of ministries in Ogun state, Nigeria ( $\hat{\beta}_1 = 0.182$ ;  $p = 0.005$ ). The result is in tandem with the work of Cuganesan and Guthrie (2019) where they found that IPSAS implementation in Australian local government entities led to improved internal control processes, resulting in higher-quality financial reports. Al-Rawashdeh et al. (2019) also found a significant positive relationship between IPSAS adoption and internal control system compliance in Jordanian public sector organizations, which as well corroborate the findings of this study. Theoretically, this study aligns with stakeholder theory which suggests that IPSAS adoption aligns interest between stakeholders, encouraging accurate reporting.

In relation to IPSAS adoption audit committee impact on quality of financial reports of ministries in Ogun state, Nigeria, the regression result shows a positive but insignificant impact ( $\hat{\beta}_2 = 0.012$ ;  $p = 0.897$ ). The findings negate the research done by Van der Hoek and Van Helden (2015). They found that IPSAS adoption in Dutch municipalities resulted in audit committees being staffed with more independent and financially literate members, enhancing their ability to monitor financial reports. The stakeholder theory implies that IPSAS adoption and strong audit committees satisfy stakeholders' information needs, resulting in improved report quality.

The impact of IPSAS adoption environment on quality of financial reports of ministries in Ogun state, Nigeria was found to be positive and significant ( $\hat{\beta}_3 = 0.334$ ;  $p\text{-value} = 0.000$ ). This implies that IPSAS adoption environment has significant influence on quality of financial reports of ministries in Ogun state, Nigeria. The finding is in tandem with the study conducted by Chia and Armstrong (2019) where they found that IPSAS adoption in Australian local government entities resulted in improved environmental reporting, leading to increased transparency and accountability. The diffusion of innovation theory explains how a conducive adoption environment, including resources and support, can lead to successful implementation of IPSAS, thereby improving quality of financial reports.

Similarly, the impact of IPSAS adoption transparency and accountability on the quality of financial reports of ministries in Ogun state, Nigeria was found to be positive and significant ( $\hat{\beta}_4 = 0.231$ ;  $p\text{-value} = 0.006$ ). This implies that transparency and accountability have positive and significant influence on financial reporting quality of public sector in Nigeria. The result corroborates the findings of Goncharov and Khodyrev (2020) where they found that IPSAS adoption has been associated with increased transparency and accountability in the Australian public sector, which enables stakeholders to make informed decisions based on reliable financial information. The agency theory indicates that transparency through IPSAS adoption reduces information asymmetry between stakeholders and the government, leading to improved financial reports.

Consequently, at 5% level of significance, the F-statistic of 4.714 with the associated p-value of 0.001 implies that internal control mechanism, audit committee, IPSAS adoption environment and transparency and accountability jointly possess greater influence on financial reporting quality of public sectors in Ogun State, Nigeria. Hence, the model is adjudged the best fit. More so, the constant term of 2.252 with t-statistics 4.212 and p-value  $0.000 < 0.05$  level of significance indicated that financial reporting quality in Ogun state public sector has far been in existence ab-initio without the influence IPSAS adoption. Therefore the study rejected the null hypothesis which implied that International Public Sector Accounting Standards (IPSAs) adoption has significant effect on Financial Reporting Quality in Nigeria Public Sector.

#### 5. Conclusion and Recommendations

This study investigated the impact of International Public Sector Accounting Standards adoption on quality of financial reports of ministries in Ogun state, Nigeria. Findings emanating from the study indicated that the explanatory variables of internal control mechanism, IPSAS adoption environment, transparency and accountability have positive and significant impact on quality of financial reports in Ogun state ministries. However, audit committee has an insignificant impact.

This presupposes that there is completeness and transparency in the financial reports prepared by these public entities and they are as well full of neutrality and lack material errors. It is therefore concluded that implementing IPSAS, according to the study, will considerably improve the quality of financial reporting in the Nigerian public sector by considering all components of good financial reporting. However, it is recommended that public entities should critically focus on the audit committee's independence, the development of public sector employees' skills, the implementation of audit committee recommendations, and the strengthening of the institutional framework for compliance monitoring, as well as the legal and regulatory framework, to improve financial reporting quality.

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# FIRM ATTRIBUTES AND VOLUNTARY INFORMATION DISCLOSURES AMONG CONSUMER GOODS COMPANIES IN NIGERIAN EXCHANGE GROUP

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## Abstract

The study examines firm attributes and voluntary information disclosures among consumer goods companies listed on the Nigerian Exchange Group (NGX). Several firm attributes such as firm size, profitability, firm age, and leverage, distinguish companies and as such could influence varying differences of voluntary information disclosures among companies. This may have accounted for the vacillating nature of findings of prior studies. The study employs the positivist research philosophy, deductive research approach and the longitudinal research design. The study uses secondary data from the annual report of listed consumer goods companies from 2012 to 2021. The study takes a census of the entire twenty one (21) consumer goods companies listed on the NGX as of 2021. However, the study could only access a complete data set for twenty (20) companies. The panel regression technique is utilised for the analysis. The results show that firm size and leverage exhibit positive significant relationship with voluntary information disclosure while profit exhibits positive insignificant relationship with voluntary information disclosure. In conclusion, the positive signs of the variables indicate their conformity to theoretical expectations and their role in driving voluntary information disclosure among consumer goods companies listed on the NGX.

## 1. Introduction

The main objective of corporate information disclosure is to mitigate agency costs and bridge the information asymmetry between the company and its stakeholders. Disclosures serve as a means to close the knowledge gap between directors and stakeholders while also enhancing the reliability of financial reports (Abeywardana et al., 2016). Both the external and internal stakeholders get financial and non-financial information from management through corporate disclosure. Companies use the annual report as a means of disclosures (Bruslerie & Gabteni, 2010). According to Wawure (2018), annual reports serve as tools for disclosing information about a corporation in order to satisfy the information needs of its various stakeholders. Furthermore, the inclusion of information disclosures in annual reports serves as a strategic instrument that enhances a company's capacity to secure capital at a more affordable cost (Healy & Palepu, 2001). Companies often incorporate two types of information, mandatory and voluntary disclosures in their annual reports. Abdullah (2009) defines mandatory disclosures as essential information that public companies are obligated to include in their financial statements. On the other hand, Edogiarerie and Oziegbe (2016) posit that voluntary disclosure refers to the voluntary release of financial and non-financial information by corporate executives that goes beyond what is legally required. This disclosure is intended to provide consumers with the necessary information to evaluate the annual accounts.

Voluntarily disclosing financial and non-financial information has attracted the interest of stakeholders in a company and academics. Although the existing laws do not obligate firms to comply with these disclosures, the inherent benefits motivate them to do so. Voluntary disclosures offer several benefits, including reduced capital expenses, increased investor trust, and enhanced share marketability (Bontis, 2013; Omoye, 2013). The evolving societal expectations necessitate an increased need for the sharing of information. Most schools of thought argue that any sort of additional information disclosure voluntarily provided by the company enhances their reputation and equally boosts the trust and confidence of investors and other stakeholders. Hence, voluntary disclosure has been gaining more attention in studies

(Elfaky, 2017). Nevertheless, corporations have specific challenges when disclosing voluntary information, which may result in legal implication such as providing inaccurate predictions and subsequent penalties. Furthermore, Sejaaka (2003) argues that traditional financial disclosures are sufficient and that further disclosures might result in an overabundance of information. Literature abounds on the determinants of voluntary information disclosures, such as firm characteristics, corporate governance, just to mention a few. In the Nigerian context, Yusuf (2018), Rabiu and Ibrahim (2017), Edogiarerie and Oziegbe (2016), Oluwagbemiga (2014), and Ibrahim (2014) have examined the voluntary reporting practices by Nigerian firms. Nevertheless, their discoveries are quite similar in that the voluntary reporting processes of Nigerian corporations appear deficient. In the same vein, a set of researchers such as Uddin and Hassan (2011), Sabo et al. (2015), and Uwuegbie et al. (2017) have examined firm attributes and voluntary disclosure of companies in Nigeria. However, debates regarding the relationship between these unique attributes of a company and its voluntary disclosure practices persist. Several characteristics, including firm size, profitability, leverage, etc., distinguish companies. These characteristics are unique to certain companies and create a perception in the minds of the users that information about a company's degree of success and prospects may influence disclosures (Odili, 2018). For instance, Yao et al. (2011) contend that because of media attention and public scrutiny, large corporations are under greater pressure to demonstrate greater information disclosure. Researchers like Ho and Taylor (2007) assert that in an effort to reduce agency costs, firms with greater leverage are more likely to increase the volume of corporate disclosure, while firms with high levels of profitability should reveal more information in order to increase their reputation with investors and prevent the negative headlines that come with having excessive earnings. Due to these varying differences, the objective of this paper is to examine the relationship between firm attributes and voluntary information disclosures among consumer goods companies listed in the Nigerian Exchange Group (NGX).

## **2. Review of literature**

### **2.1 Voluntary disclosures**

According to Sahi et al. (2022), annual disclosures are methods used to convey both financial and non-financial information to cater for the information needs of both the primary (e.g., existing and potential investors, shareholders, lenders, and creditors) and secondary users (e.g., employees, regulators, the government, trade unions, customers, suppliers, rivals, distributors, and society) of company financial information. The annual reports of corporations commonly include two types of information: mandated and voluntary disclosures. According to Asogwa et al. (2020), the mandatorily required disclosures refer to information that must be provided in accordance with the relevant rules, laws, regulations, and standards that are in effect at a given moment. Voluntary information disclosure is an alternative form of information disclosure whereby corporations elect to divulge both financial and non-financial data via annual reports, on top of what is required by International Accounting Standards (IAS) or any other relevant regulatory standards (Abeywardana & Panditharathna, 2016). The significance of voluntary corporate reporting policy has given rise to a substantial academic concerned with identifying determinants of voluntary disclosure practices by corporations in developed and developing markets.

### **2.2 Firm size and voluntary disclosures**

Tanq and Abass (2013) view a company's size as a crucial characteristic of its disclosure policies. The relationship between the size of an organisation and voluntary disclosure is associated with stakeholder theory, which asserts that a company should not solely focus on satisfying the demands of its shareholders but should instead formulate strategies to include all other stakeholders (such as the government, potential investors, customers, and suppliers). According to the signalling theory, companies that are big, easily noticeable, and make a lot of financial success are more likely to provide detailed information to their stakeholders in order to demonstrate their strong performance. This is done to establish credibility and approval in order to fulfil public demands. Large companies incur higher agency costs when they choose not to disclose sufficient information due to the dispersed nature of their shareholders (Christ & Burritt, 2013). Larger corporations often find it more manageable to access diverse markets or industries and secure financing from multiple nations due to the varying degrees of economies

of scale that they possess (Oliveira et al., 2006). For instance, when seeking external financing for their operations, corporations often employ more delicate instruments in their capital market activities. In this regard, voluntary disclosure could potentially enhance investors' confidence (Hossain & Hammani, 2009). Bhayani (2010) posits that the size of an organisation significantly influences its disclosure practices. This can be rationalised by the substantial agency costs incurred by large corporations, which motivate managers to disclose additional information to prevent agency conflicts.

Empirically, most studies affirmed a positive relationship between firm size and voluntary information disclosures (Abubakar et al., 2021; Asmare & Viswanadham, 2022; Onuoha & Okoye, 2022; Rabiu & Ibrahim, 2017; Seran, 2021). Therefore, based past findings, and relying on stakeholders and signalling theories, the study expects a positive a priori relationship between firm size and voluntary disclosures. The study states the first hypothesis as: *H<sub>1</sub>: Firm size has a significant positive relationship with voluntary disclosures among consumer goods companies listed in the NGX.*

### **2.3 Firm financial leverage and voluntary disclosures**

A direct relationship has been observed between leverage and voluntary information disclosure. High levels of leverage lead to increased agency costs, which motivates managers to divulge supplementary information as a means of mitigating these expenses. According to agency theory, leverage and voluntary disclosure are positively related so as to constrain managerial action and compel them to provide more information in order to reduce monitoring expenses (Li & Zhoa, 2011). According to Ho and Taylor (2007), organisations that have greater levels of leverage are more likely to increase the quantity of information they divulge to the public as a means of decreasing agency costs. Organisations that are highly leveraged incur greater agency debt expenses and monitoring expenses. According to Jensen and Meckling (1976), organisations that carry significant leverage levels are vulnerable to expense monitoring, consequently leads them to disclose additional information. Large-debt corporations often furnish additional information at their discretion, with the intention of fostering lender confidence and extending the duration of their loan agreements. Moreover, organisations that have substantial debt arrangements frequently encounter responsibilities to adhere to specific restrictive agreements. These businesses must provide additional information beyond what is strictly required in order to demonstrate compliance. In the same vein, a company characterised by low leverage is more inclined to possess robust incentives and motivations to engage in communication with the market concerning its financial arrangements. This implies that voluntary disclosure is likely to increase in magnitude (Haniffa & Cooke, 2005). A decrease in leverage could motivate management to place greater emphasis on informing shareholders as opposed to lenders. Therefore, management include more comprehensive information in their financial statements to reduce costs and prevent requests from creditors. Consequently, managers are more likely to disclose information pertaining to the credit risks (Hendra & Evelyn, 2015). Empirically, most studies affirmed a positive relationship (Abubakar et al., 2021; Elfeky, 2017; Hassan, 2015; Modugu & Eboigbe, 2017) while others found inverse relationship (Abeywardana & Panditharathna, 2016; Tufail, 2014; Uyar et al., 2015). Therefore, based on past findings and relying on agency theory, the study expects a positive a priori relationship between leverage and voluntary disclosures. The study states the second hypothesis as: *H<sub>2</sub>: Financial leverage has a significant positive relationship with voluntary disclosures among consumer goods companies listed in the NGX.*

### **2.4 Firm profitability and voluntary disclosures**

According to the political cost hypothesis, the motivation of management in highly profitable companies is to furnish additional information in order to justify their revenues (Hamid & Abubakar, 2019). Signalling theory posits that organisations that generate significant revenues should differentiate themselves from unprofitable ones through the provision of increased transparency (Hamid & Abubakar, 2019). According to the stakeholder theory, numerous stakeholders require vital information regarding the financial prosperity of a company. Conversely, should the organisation incur financial losses during a specific fiscal year, the managers might be inclined to voluntarily divulge additional information in an effort to mitigate the risk of legal repercussions (Albitar, 2015). According to Sehgal et al. (2006), managers are more likely to voluntarily disclose positive news than negative news due to the potential impact

of the former on the stock price and other relevant metrics. According to the signalling theory, firms that generate substantial profits would potentially disclose more information in order to exploit their success and thereby increase the value and price of their shares. According to the agency theory, managers operating within exceptionally profitable organisations might divulge extensive information to secure personal advantages and rationalise their compensation contracts. Disclosure of information voluntarily may motivate management to achieve success due to the numerous benefits it provides, such as the ability to support compensation, bolster a firm's market reputation etc. Empirically, most studies affirmed a positive relationship (Abeywardana & Panditharathna, 2016; Abubakar et al., 2021; Elfeky, 2017; Seran, 2021; Tufail, 2014) while another found inverse relationship (Uyar et al., 2015). Therefore, based on past findings and relying on signalling theory, the study expects a positive a priori relationship between firm profitability and voluntary disclosures. The study states the third hypothesis as: ***H<sub>3</sub>: Firm profit has a significant positive relationship with voluntary disclosures among consumer goods companies listed in the NGX.***

### 3. Methodology

The study employs a positivism research philosophy, a deductive research approach and a longitudinal research design. It took a census of twenty one (21) consumer goods companies listed on the NGX as at 2021. However, the study could only access a complete data set for twenty (20) companies. The study used secondary data from the annual reports of the selected companies. The data was analysed using the panel estimation technique with the aid of E-Views 9 because of the problem of heterogeneity associated in a cross-section study. Other post diagnostic tests such heteroschedasticity, serial correlation, model specification were carried out.

#### 3.1. Theoretical framework and model specification

The theoretical framework is founded upon the theories of agency, signalling, and stakeholders. Agency theory posits that in order to reduce the agency costs that result from the conflict of interest between shareholders and managers, businesses should voluntarily disclose additional information (Alves et al., 2012). Voluntary information disclosure can also be explained by signalling theory. The signal theory posits that in order to convey their strong performance, profitable companies are more inclined to furnish comprehensive information to their stakeholders. Neysi et al. (2012) state that organisations with higher performance levels are more likely to disclose a substantial quantity of information, as opposed to smaller organisations with lower performance levels. The stakeholders' theory asserts that instead of focusing solely on shareholders, corporations have a responsibility to satisfy the needs, provide information, and safeguard the interests of all stakeholders (Abed et al., 2014). Premised on the above, the research predicts a positive a priori relationship between firm attributes (firm size, profitability and financial leverage) and voluntary information disclosures. This study adapts the model of Ramalan et al. (2021).

The model for this study is adapted below while controlling for board independence:

$$VID_{it} = \alpha_0 + \beta_1 FS_{it} + \beta_2 FP_{it} + \beta_3 LEV_{it} + \beta_4 BND_{it} + \mu_1 \quad \text{---(i)}$$

VID = Voluntary information disclosure, FS = Firm Size, ROA = Return on assets, LEV = Leverage, and BND = board of directors' independence,  $\alpha_0$  = Intercept/constant,  $\beta_1 \dots \beta_4$  = Beta coefficient,  $\mu_1$  = Residual/error term,  $i$  = firm (1---20),  $t$  = time (2016-2022).

### 3.3. Measurement of Variable

**Table 1: Measurement of variables**  
Source: Researcher's compilation (2024)

S/n	Variables	Acronyms	Measurement	A priori sign	Justification
<b>Dependent variable</b>					
1	Voluntary information disclosures	VID	Content analysis, which includes five disclosures criteria/themes. The total disclosed items are summed up and divided against the five disclosure criteria to ascertain the ratio/percentage of actual disclosures.	Nil	Okafor and Egiyi (2023)
<b>Independent variables</b>					
2	Firm size	FS	The log of the total assets of the company	+	Ramalan et al. (2021).
3	Profitability	ROA	Ratio of profit after tax to total assets	+	Ramalan et al. (2021).
4	Financial leverage	LEV	Ratio of total debts to total equity	+	Ramalan et al. (2021).
<b>Control variable</b>					
5	Board independence	BND	Ratio of non-executive directors to the total number of directors on the board	+	Uwigbe et al. (2017).

### 4. Presentation and discussion of results

Table 2: Result of the descriptive statistics

Variables	Mean	Max.	Min.	Std. Dev.	J-Bera.	Prob.	Obs.
VD	0.649	0.825	0.400	0.110	6.819*	0.033	200
FS	16.860	20.115	10.955	2.149	19.593*	0.000	200
LEV	1.220	19.557	0.177	2.997	516*	0.000	200
ROA	0.064	6.174	-2.359	0.512	900*	0.000	200
BND	0.630	0.916	0.250	0.122	3.590	0.166	200

Source: Compiled from E-Views 9 (2024)

Table 2 displays the descriptive statistics for the variables. The mean VID is 0.649, indicating that the average percentage of voluntary disclosure of the sampled firms is around 64.9%. The average FS was 16.860 in log form, indicating that the average asset value for the enterprises in the sample is about N72.45 trillion. The average LEV was 1.220, indicating that the average debt-to-equity ratio is around 122%. The average return on assets (ROA) was 0.064, indicating a 6.4% return on average. Finally, the average BND value was 0.630, indicating that the average proportion of non-executive directors to total directors is around 63%.

**Table 3: Result of the correlation matrix**

Variables	VID	FS	LEV	ROA	BND
VID	1				
FS	0.391*** (0.000)	1			
LEV	-0.069 (0.306)	-0.534*** (0.000)	1		
ROA	0.036 (0.600)	-0.027 (0.689)	0.042 (0.536)	1	
BND	0.187** (0.005)	-0.016 (0.817)	-0.054 (0.422)	0.000 (0.999)	1

Source: Compiled from E-Views 9 (2024)

Table 3 displays the correlation between the independent (company size, leverage, ROA, and board independence) and dependent variables (voluntary disclosure). The correlation statistics provide insight into the direction of the correlations between the variables. Positive correlations suggest that there is a direct relationship between two variables, meaning that if one variable increases, the other variable also increases, and vice versa. The findings indicate that VID has a positive correlation with FS ( $r = 0.391$ ), ROA ( $r = 0.036$ ), and BND ( $r = 0.187$ ), while it has an inverse relationship with LEV ( $r = -0.069$ ). The relationship of FS and BND with VID are statistically significant at the 1% and 5%, while with LEV and ROA is insignificant at the 5%.

**Table 4: Panel regression output**

	A priori signs	Random Estimation.		Fixed Estimation.	
		Coefficient	p-values	Coefficient	p-values
C		-0.082	0.431	-0.182	0.122
FS	+	0.043***	0.000	0.049***	0.000
LEV	+	0.014**	0.001	0.014**	0.004
ROA	+	0.001	0.149	0.009	0.219
BND	+	0.009	0.805	-0.008	0.826
<b>Model Parameters</b>					
R <sup>2</sup>		0.435		0.836	
Adjusted R <sup>2</sup>		0.413		0.813	
F-statistic		10.904***		36.297***	
Prob. (F-stat)		0.000		0.000	
Durbin-Watson		0.77		0.866	
Hausman P-value		0.174			

**Source:** Compiled from E-Views 9. \* = Sig @10%; \*\* = Sig @ 5%; \*\*\* = Sig @ 1% levels

Table 4 above shows the outcome of the regression analysis. The hausman test result reveals a preference for random effect estimation over fixed effect estimation. The random estimation result showed that R<sup>2</sup> is 0.435, which means that the explanatory variables together explain 43.5% of the systematic differences in voluntary disclosures. At the 1% level of significance, the F-statistic (10.904) and p-value (0.000) show that we cannot rule out the idea that there is a significant linear relationship between the dependent and independent variables. Furthermore, the D.W. statistics of 0.77 indicate a high likelihood of serial correlation in the residuals.

#### 4.1. Discussions

##### 4.1.1. Firm size and voluntary disclosures

Firm size (FS) has a positive and significant impact (0.043, p= 0.000 at the 1% level) on voluntary disclosure of information in the annual report. This implies that an expansion in the scale of companies would result in a corresponding increase in the level of voluntary information sharing, and it is significant. The study confirms the hypothesis ( $H_1$ ) that there is a significant positive relationship between the firm size and voluntary information among consumer goods companies listed in the NGX. The finding is consistent with both prior findings and theoretical hypotheses. Bhayani (2010) posits that the size of an organisation significantly influences its disclosure practices. This can be rationalised by the substantial agency costs incurred by large corporations, which motivate managers to disclose additional information to prevent agency conflicts. These results are consistent with those of previous research (Abubakar et al., 2021; Asmare & Viswanadham, 2022; Onuoha & Okoye, 2022; Seran, 2021).

#### **4.1.2 Firm leverage and voluntary disclosures**

Firm leverage (LEV) has a positive and significant impact (0.014,  $p = 0.001$  at 5%) on voluntary disclosure of information in the annual report. This implies that if corporations raise their debt, there will be a corresponding increase in voluntary disclosures, which is significant. The study confirms the hypothesis ( $H_2$ ) that the level of debt in a company is positively related to the amount of voluntary information disclosed by consumer goods companies listed on the NGX. The presence of firm leverage in our results is consistent with prior findings and theoretical predictions. Jensen and Meckling (1976) contend that companies with high levels of debt have significant expenses associated with monitoring, which in turn leads them to provide additional information. Furthermore, companies that have large levels of debt are more likely to release additional information voluntarily. Also, companies are obligated to adhere to certain restrictive agreements after making loan arrangements. Therefore, they must reveal a greater amount of information than is minimally necessary. The findings are in tandem with prior studies (Abubakar et al., 2021; Modugu & Eboigbe, 2017; Rakiva, 2019).

#### **4.1.3 Firm profit and voluntary disclosures**

Profit (ROA) has a positive and insignificant impact (0.010,  $p=0.149$  at 5%) on voluntary information disclosures in annual report. This implies that a higher profit for companies would result in an increase in voluntary disclosures, although the impact is not significant. The study rejects the hypothesis ( $H_3$ ) that there is a significant positive relationship between company profit and voluntary disclosures among consumer goods companies listed on the NGX. Our result, which shows a positive sign for firm profit, aligns with a priori and theoretical expectations, but caution is necessary as it failed the significance test. The rise in profitability serves as a catalyst for management to enhance the quality of information accessible to investors, thereby bolstering the reputation of management (Apostolos & Konstantinos, 2009). Ghazali and Weetman (2006) contend that the propensity of corporations to divulge financial information increases in tandem with their profitability. According to the signalling theory, companies that generate substantial profits will disclose additional information in an effort to increase the value and price of their shares and capitalise on their success. The findings are in tandem with prior studies (Damagun & Chima, 2013; Filsaraei & Azarberahman, 2016; Onuoha & Okoye, 2022).

### **5. Conclusion**

Advocates of voluntary disclosures argue that society's expectations are continually evolving, resulting in increased requirements for information transparency. Some advocates argue that any further release of information, done willingly, enhances the reputation of the company and boosts the trust and confidence of investors and other stakeholders. Consequently, voluntary disclosure has been attracting growing attention in studies. Although there is a lot of literature on what motivates firms to disclose information voluntarily, including firm-specific characteristics and corporate governance, to name a few, there are still a lot of arguments about the relationship between firm-specific characteristics and corporate voluntary disclosure. The reason is that these firm-specific characteristics are unique to certain companies and create a perception in the minds of the users that a company's attributes may influence voluntary disclosures.

The study used panel estimation techniques to analyse the data. Relying on signalling, agency, and stakeholder's theories, the result showed that firm size and leverage exhibit positive and significant impacts on voluntary information disclosures among consumer goods companies listed in the NGX while profitability showed positive, but insignificant impact. The positive sign of all the variables indicates their conformity to theoretical expectations as well as their role in driving voluntary disclosure among the sample. The paper offers the following policy recommendations: First, as firms grow in size, it may be beneficial to disclose information beyond what is legally required, as this could mitigate potential pressure, media scrutiny, and high agency costs. Second, firms should signal their economic fortune to the public by making additional voluntary disclosures of non-financial information as they continue to make profits.

Third, due to the high monitoring costs and information asymmetry that exist in a highly levered firm, it is necessary for companies to undertake a proportional increase in voluntary disclosure to decrease information asymmetry and monitor costs.

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## AUDIT COMMITTEE ATTRIBUTES AND ENVIRONMENTAL PERFORMANCE OF DEPOSIT MONEY BANKS IN NIGERIA

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### Abstract

*The aim of this study was to investigate the effect of audit committee attributes on environmental performance of deposit money banks in Nigeria. Samples of thirteen (13) listed deposit money banks on the Nigerian Exchange Group (NGX) were conveniently selected for a period of seven (7) years (2016 – 2022). The Panel Least Square (PLS) regression technique was employed in estimating the data. The results of the study showed that audit committee size and audit committee independence have significant effect on environmental performance of deposit money banks in Nigeria, while audit committee meeting has insignificant effect on environmental performance of deposit money banks in Nigeria. The study recommended that audit committee of listed deposit money banks should maintain their independence, as this will enhance environmental performance. It was also recommended that audit committee should not only discuss the issue of financial performance and reporting, but also prioritize the issue of environmental performance during its meetings, this will in-turn enhance the environmental performance of listed deposit money banks in Nigeria.*

key words: Audit committee, environmental performance, audit committee size, audit committee independence, audit committee meeting.

### 1. Introduction

Environment has become a very crucial issue not only for personal life but also for business life. Hence, environmental performance practices have gathered great momentum in recent years (Ullah et al. 2013). Similarly, Olanrewaju and Johnson-Rokosu (2016) declare that before now annual financial and non-financial disclosure of most listed companies disregard multiple dimensions of corporate value. Most companies are concerned about creating wealth and distributing it in form of dividend to shareholders, while neglecting other stakeholders. However, civil society pressure group, non-government organisation group, government regulations and corporate governance codes, green consumer pressure and other similar pressure group make it imperative for corporate body that need to survive and create wealth to consider corporate environmental performance to take care of the needs of various stakeholders. Ofoegbu, (2017) submits that the importance of environmental performance is expanding because of expansion in environmental problems, economic, communal and technological development. As a result of environmental issues most developed countries have initiated mandatory disclosure of environmentally related matters (Uwujigbe & Jimoh, 2012).

In Nigeria, the increasing environmental issues of which banking sector tend to have a profound impact on the environment calls for examination of the quality of environmental performance voluntarily provided in their annual reports to creating awareness among the stakeholders. As Adekanmi et al. (2015) put it, environmental information though not mandatory is regarded as best practice. However, any deviation from the best practice may give a bad signal to the society and the market because it implies a poor management of corporate social responsibility and impacts of the firm on the natural environment. Firms that intend to build a good image need to prove herself to be socially responsible by ensuring that best practices are observed.

To ensure best practices are observed, organisations take a wide range of actions which include setting up committees whose roles include watching closely the contents of the financial report from compilation to publication and beyond. One of such committees is the audit committee which according to Eyenubo et al. (2017) consists of a selection of members of an organisation saddled with the duty of oversight of the companies accounting and financial reporting as a good corporate governance tool which enhances the integrity of financial reporting and environmental performance.

Alqatamin (2018) opined that “the primary role and responsibility of audit committees is to make recommendations on the appointment and change of external auditor; it covers wider areas including the monitoring of managers and review of the company’s internal control system. Zabri et al. (2016) suggested that knowledgeable audit committees help enhance the company’s environmental performance; therefore, good characteristics of audit committees are associated with good company environmental performance. To the best of the researcher knowledge, prior studies in the area of audit committee attributes in Nigeria focuses mainly on the influence of audit committee attributes on financial reporting or financial performance of companies. For instance, the study of Olaoye et al. (2019), Hope and Ikueze (2018) and Ojeka et al. (2014) among others evaluate audit committee attributes and financial performance of quoted companies in Nigeria. On the other hand, it is evidence that quite a number of studies have been conducted in Nigeria on environmental disclosures issues. For example are the study of Oti and Mbu-Ogar (2018), Ofoegbu (2017), Soyinka et al. (2017), Emeakponuzo and Udih (2015), Uwugbe and Jimoh (2012) among others.

Therefore, studies on audit committee attributes and environmental performance of listed deposit money banks in Nigeria are relatively scanty. The dearth of empirical studies on audit committee attributes and environmental performance of listed deposit money banks in Nigeria apparently leaves a gap. Hence this research tries to fill this gap by empirically investigate audit committee attributes and environmental performance of listed deposit money banks in Nigeria.

## **2. Literature Review**

### **2.1 Environmental Performance**

Corporate environmental performance is an assessment of the extent to which the company can perform environmental management (Onyali & Okafor, 2018). They further explained that “it is the performance of the firm in creating a good environment. The firm gives attention to the environment as a form of corporate responsibility and care to the environment.”

Salo (2008) defined environmental performance as those factors that add to or protect financial value, because they are the ones most important to shareholders and firm management. These factors include: current environmental liabilities and risk exposure, potential to harness environmental business opportunities, firm ability to manage environmental risks and opportunities, the use of environmental management systems (EMSs), environmental performance monitoring and accounting systems, and the quality of environmental reporting.

### **2.2 Audit Committee**

Audit committee is a fundamental ingredient of corporate governance whose obligation is to monitor and direct corporate financial reporting and disclosure activities (Ogoun et al., 2020). The CBN Code of Corporate Governance as well as the Nigeria Code of Corporate Governance accentuates the formation of audit committee that made up of non-executive directors and an independent director being the chairman (Ogoun et al., 2020).

Audit committee is known as a sub-committee inside the corporate governance confines whose responsibilities is not only to ensure the quality of financial reporting and disclosures, but also to enhance the internal control apparatus of an organisation (Ogoun et al., 2020).

Emeh and Appah (2013) explained that audit committee is a committee constituted by an organisation to serve as a link connecting corporate board of directors as well as the external auditors, this audit committee usually have a greater part of non-executive directors and they are likely or anticipated to oversee the organisation's issues in an isolated and detached method and manner.

Amer et al. (2014) described audit committee as an extra corporate internal governance system whose responsibility is to enhance the effectiveness of monetary administration of an organisation as well as corporate reporting quality. The attributes of audit committee is divided into three, they include; audit committee independence, audit committee size, and audit committee meetings (Amer et al., 2014). Some of the attributes are discussed below.

### **2.3 Audit Committee Attributes**

#### **2.4 Audit Committee Size**

Audit committee size could be refers to as the total number of individuals that constitute the committee, it comprises of non-executive directors and corporate shareholders (Ezat et al., 2021). Afenya et al. (2022) simply described audit committee size as the total amount of persons that made up the audit committee. Abu et al. (2018) opined that corporate

organisations choose the members of audit committee from outside the organisations to offer an unbiased and non-discriminatory evaluation and assessment of the organisation's practices. Afenya et al. (2022) disclosed that an audit committee ought to be diverse and diverse adequately and sufficiently to represent a balance of knowledge, skills and views, yet little enough to perform effectively.

Section 404 (3) of the Companies and Allied Matters Act, (CAMA), 2020 requires every public company to establish an Audit Committee. Section 404(3) posits that the committee must have a maximum of 5 (five) members, comprising of 3(three) shareholders representative and 2(two) non-executive directors with at least one member being a member of a professional accounting body in Nigeria established by an Act of National Assembly. An audit committee whose membership is large stands to benefit from separate point of view during their debate relating to financial reporting (Alabi et al., 2022). The thought is that an organisation with large quantity of audit committee directors, the committee should be able to utilize a wider array of knowledge, experience and talents to improve its administrative tasks. It also permits the audit committee to deal with a lot of financial reporting issues at the same time, resulting in the accomplishment of the external audit on schedule (Alabi et al., 2022).

## **2.5 Audit Committee Independence**

Audit committees are supposed to distance itself from the corporate board of directors to enable the committee (audit committee) to effectively and efficiently carried out their duties as it relate to the monitoring and supervision of corporate boards dealings as well as behaviour which of a truth comprises of any forms of purposeful delays (lags) in the financial reporting procedures/methods adopted (Odjaremu & Jeroh, 2019). The reliability, credibility as well as financial reporting process may be influenced if the audit committee exhibited little or no independence (Odjaremu & Jeroh, 2019).

The ability of audit committee to perform their duty without any interference from corporate auditors and board of directors (corporate management) is described as audit committee independence (Salawu et al., 2017). According to Oji and Ofoegbu (2017) an independent audit committee member is a person who is not employed by or providing any services to the organisation beyond his or her duties as a committee member. Oji and Ofoegbu (2017) buttress that the expectation is that independent audit committee members will be more objective and less likely to ignore possible deficiencies in the misappropriation and manipulation of financial reporting.

## **2.6 Audit Committee Meeting**

Audit committee meetings could be best described as the number of meetings members of audit committee held during the period of corporate financial year (Ezat, 2019). Dabor and Mohammed (2015) opined that the audit committee meeting is regarded as the location or a place where audit committee members meet to deliberate corporate financial reporting

procedure, it is also a place where the procedure of overseeing corporate financial reporting take place. Even though audit committee exhibits independent to a very large extent, their activities is not likely to be efficient unless they meet to deliberate issues regularly. Dabor and Mohammed (2015) disclosed that any audit committee that aims to perform excellently well in overseeing corporate financial reporting would be require to uphold a high level of activity. One technique to determine the effectiveness of audit committee is by considering the number of times the audit committee meets in a particular year (Dabor & Mohammed, 2015).

## **2.7 Empirical Review**

Atang and Eyisi (2020) study the determinants of environmental disclosures of listed manufacturing firms in Nigeria. Ex post facto research design is adopted for the study and multiple regressions is used in analyzing the data gotten. The result revealed that board composition influences about 13% of the variation in the environmental disclosure of manufacturing firms in Nigeria. In the same vein, the result showed that profitability improves environmental disclosure practice by 1.8%. Falope et al. (2019) examined the relationship between environmental disclosure and performance of quoted Nigerian construction firms. The study adopted Ex Post Facto research design. The result reveal that that environmental pollution prevention cost, environmental protection cost and environmental recycling disclosure have effects on return on assets of quoted construction firms in Nigeria.

Onyali and Okafor (2018) examined the effect of firm characteristics on corporate environmental performance of quoted industrial goods firms in Nigeria. Population and sample size of the study is made up of eleven industrial goods firms quoted on the Nigerian stock exchange as at the year, 2017. This study utilized secondary data sourced from annual reports and accounts of the sampled firms for the study period, 2008 – 2017. Findings of the study revealed that firm attributes (firm size, profitability and firm age) have a significant and positive effect on environmental performance at 5% significant level.

Adinehzadeh et al. (2018) investigate the association between corporate governance and environmental disclosures quality and the mediating role of environmental performance in this relationship. Sample of study consists of 344 companies listed on Bursa Malaysia for the year of 2013. The results of study show that corporate governance is positively associated with environmental performance and its disclosure. The results also show that environmental performance partially mediates the relationship between corporate governance and environmental disclosure quality. Umoren et al. (2018) examine the relationship between environmental accounting reporting and Oil companies' performance in Nigeria. Eleven (11) quoted oil companies were randomly selected from the Nigerian Stock Exchange. The secondary data used were from the audited financial statements of the Oil companies. The results of the analysis showed insignificant relationships between environmental accounting reporting and performance variables, that is, return on capital employed, net profit margin, earnings per share and dividend per share.

Amiolemen et al. (2018) investigated corporate social environmental reporting and its association with stock prices among listed firms in Nigeria. The study used a cross-sectional research design comprising fifty publicly listed companies across various sectors for the period of five years (2011 – 2015). This research utilizes the panel data regression technique. Also, in an attempt to examine the relatively market price per share across the sampled industries, the study made use of the one-way analysis of variance, while the Granger causality test was also conducted to ascertain whether bi-directional relationships exist between explanatory variable and the dependent variable. Findings from the study revealed that the association between corporate social and environmental expenditure and the market price of the firm is not significant. The result from the Analysis of Variance (ANOVA) showed that the market price per share is significantly different across the industries.

### 3. Methodology

The study adopted the ex-post facto research design. Secondary data were obtained from financial statements of selected deposit money banks quoted on the Nigerian Exchange Group. The sample size for this study comprised thirteen (13) deposit money banks listed on the Nigeria Stock Exchange market as at December, 2022. The convenience sampling technique was utilized because financial statement of some deposit money bank was not available online for the period under review, 2016 to 2022.

### 3.1 Model Specification

**Where:**

AQUAL = Audit Quality  
ACSIZE = Audit Committee Size  
ACMEET = Audit Committee Meeting  
ACEXP = Audit Committee Financial Expertise

Therefore, the researcher modified the model and it is stated as follows: In a functional form, we have:

$$\text{EPEP} = f(\text{ACSIZE}, \text{ACIND}, \text{ACMEET}) \dots \text{ (ii)}$$

Expressing equation in econometric form, we have

Where:

EPER = Environmental Performance (proxy for corporate social responsibility)  
ACSIZ = Audit Committee Size  
ACIND = Audit Committee Independence  
ACMEET = Audit Committee Meeting

"i" for firms

"t" for time

$e_{it}$  for error terms

### 3.2 Operationalization of Variables

Table 1: Measurement of variables.

Variable Labels in the OLS	Corporate Attributes	Measurement	Source	Apriori Sign
<b>Dependent variable</b>				
EPER	Environmental Performance	This is taken as log of corporate social responsibility (corporate donations)	Atang and Eyisi (2020)	Nil
<b>Independent variable</b>				
ACSIZE	Audit Committee Size	Size of the committee	Ibadin and Afensimi (2015)	+
ACMEET	Audit Committee Meeting	Number of audit committee meeting during the year	Ojeka, Iyoha and Asaolu (2015)	+
ACIND	Audit Committee independence	Proportion of executive director on the audit committee	Aronmwan, Ashafoke and Mgbame (2013)	+

Source: Researcher's Compilation from Previous Studies (2024)

### 3.3 Method of Data Analysis

The study employed the panel least square estimation technique. The choice of the panel estimation technique is due to the heterogeneity problem associated in a cross-section study. The approach is to first conduct the random effect estimation, and thereafter ascertain whether the result is undermined by conducting the hausman test. If the hausman test probability value is significant at 5% (hausman p-value > 0.05), this suggests that the result is undermined, hence there is the need to conduct the estimation using mean-corrected values, i.e. the fixed estimation result. Other diagnostic test were done such as normality and heteroscedasticity tests.

## 4. Data Analysis and Interpretation

Table 2: Descriptive Statistics

	CSR	ACSIZ	ACIND	ACMEET
Mean	7.152708	5.540000	0.494000	4.320000
Maximum	9.707890	6.000000	0.600000	7.000000
Minimum	1.770557	4.000000	0.300000	2.000000
Std. Dev.	2.516986	0.676425	0.089008	1.058301
Jarque-Bera	8.055330	10.93506	4.820455	1.234189
Probability	0.017816	0.004222	0.089795	0.539510
Observations	91	91	91	91

Source: E-view 9.0 Output, 2024

The factors from the thirteen (13) deposit money banks that made up the study's overall sample are described statistically in Table 1. According to what was seen, the Environmental Performance (EPER) of the selected banks for the under review period skewed towards the positive as seen by the mean value of the dependent variable showing positive values ranging from 1.771 to 9.708 Audit Committee Size (ACSIZ), Audit Committee Independence (ACIND) and Audit Committee Meeting (ACMEET) all had mean values that were positive, with mean values of 5.540, 0.494 and 4.320 respectively. Each variable's standard deviations indicated little departure from the mean values, which is highly desired. Furthermore, all of the elements' probability values for the Jargue-Bera test are significantly below 0.05, showing that the series is uniformly distributed.

**Table 3: Result of the correlation matrix**

Variables	CSR	ACSIZ	ACIND	ACMEET
CSR	1			
ACSIZ	-0.150 (0.299)	1		
ACIND	-0.322** (0.022)	-0.420** (0.002)	1	
ACMEET	-0.227 (0.113)	-0.246* (0.085)	0.3678* (0.009)	1

Source: Compiled from E-Views 9 (2024)

Table 3 presents the correlation matrix of variables adopted in the study. The aim is to show how the variables are related among themselves and to also check for possible high correlations which could lead to multicollinearity problem. As observed from the result, a negative correlation exists between the dependent variable Environmental Performance (EPER) and the variables of Audit Committee Size (ACSIZ), Audit Committee Independence (ACIND) and Audit Committee Meeting (ACMEET) at -0.150, -0.322 and -0.227 respectively. This suggests that all the independent variables move in inverse direction with the dependent variable. It is also observable that the issue of high-correlation is not evident among the variables as none of the correlation coefficients is above 0.90.

#### **4.1 Diagnostic Tests**

**Table 4: Variance Inflation Factors**

Variance Inflation Factors

Date: 02/28/24 Time: 01:13

Sample: 1 91

Included observations: 91

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
ACSIZ	0.286602	85.30589	1.228361
ACIND	17.97498	43.26190	1.333937
ACMEET	0.111524	21.06380	1.170022
C	19.02475	181.8446	NA

**Source: Eviews 9 (2024)**

In order to test for the presence of multicollinearity in the model, the Variance Inflation

Factor (VIF) was carried out. The result of the variance inflation factor in Table 4 shows the absence of multicollinearity. The centered VIF values of the explanatory variables are far below the benchmark of 10 (Landau & Everitt, 2003). The explanatory variables of Audit Committee Size reported a centered VIF of 1.228; Audit Committee Independence 1.333 and Audit Committee Meeting 1.170. All the variables of the model recorded a centered VIFs that are not substantially different from 1.00 and are not indicative of the problem of multicollinearity.

### **Estimation Results**

#### **Correlated Random Effects - Hausman Test**

Test Summary	Chi-Sq.			
	Statistic	Chi-Sq.	d.f.	Prob.
Period random	0.915380		3	0.8217

**Source: Author's Compilation (2024) from E-Views 9.0 output**

**Null Hypothesis:** Random effect model is desirable

**Alternative Hypothesis:** Fixed effect model is desirable.

Decision Rule: Accept null if probability is greater than 5%.

Accept alternative if probability is less than 5%.

The chi-square statistics has a value of 0.916 based on the Hausman Test result, and the related p-value of 0.822 which is greater than 5%. The null hypothesis was therefore accepted. This suggests that the random effect model is more suitable for this study.

### **Table 6: Regression Results**

Dependent Variable: CSR

Method: Panel EGLS (Period random effects)

Date: 02/28/24 Time: 01:06

Sample: 2016 2022

Periods included: 7

Cross-sections included: 13

Total panel (balanced) observations: 91

Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ACSIZ	-1.354099	0.553680	-2.445636	0.0183
ACIND	-11.70634	4.384837	-2.669732	0.0105
ACMEET	-0.390523	0.345385	-1.130688	0.2640
C	22.12441	4.511062	4.904479	0.0000
Effects Specification				
			S.D.	Rho
Period random			0.000000	0.0000
Idiosyncratic random			2.365449	1.0000
Weighted Statistics				
R-squared	0.524845	Mean dependent var	7.152708	
Adjusted R-squared	0.474291	S.D. dependent var	2.516986	

S.E. of regression	2.287148	Sum squared resid	240.6282
F-statistic	4.447647	Durbin-Watson stat	1.644203
Prob(F-statistic)	0.007954		

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#### Unweighted Statistics

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R-squared	0.524845	Mean dependent var	7.152708
Sum squared resid	240.6282	Durbin-Watson stat	1.644203

**Source: Researcher's Computation via Eviews 9 (2024)**

As shown in the Table 6, estimations show the effect of audit committee attributes on environmental performance of deposit money banks in Nigeria. The environmental performance (proxied by corporate social responsibility) R-squared, coefficient of determination, which is displayed in the above table as 0.52, shows that the independent variables account for around 52% of the systematic changes in the dependent variable. After accounting for the degree of freedom, the model could account for around 47% of the systematic fluctuations in the environmental performance based on the Adjusted R<sup>2</sup>. The F-statistics value and the corresponding p-value were 4.448 and 0.008 respectively, showing that the linearized model specification may be taken as adequate and that the hypothesis of a joint statistical significance of the model cannot be rejected at the 5% level of significance. Lastly, the Durbin-Watson value of 1.64 suggests that there is no evidence of autocorrelation among the error term.

The evaluation of the slope coefficients of the independent variables revealed the existence of a negative effect between environmental performance and the independent variables of Audit Committee Size, Audit Committee Independence and Audit Committee Meeting as depicted by the slope coefficients of -1.354, -11.706 and -0.391 respectively. This means that a unit change in Audit Committee Size and Audit Committee Independence and audit committee meeting decreases environmental performance of deposit money banks in Nigeria with audit committee independence and audit committee size exhibiting significant impact at 5% level. It is worthy to note that only the variables Audit Committee Size and Audit Committee Independence passed the significance test at 5% level.

Audit committee variables being inversely signed seems not to conform to theoretical expectation and prior empirical findings. The reason could be that audit committee is not a core organ in the corporate governance matrix, hence their role to influence disclosure practices may be limited, unlike the board of directors that could be seen as a major player in the corporate governance matrix. Most prior studies had not examined audit committee attributes and environmental disclosure practices, the researcher could not substantiate the findings with prior studies. However, with similar studies on audit committee, board of directors attributes, firm attributes and environmental disclosure practices, Atang and Eyisi (2020) found that profitability, auditor type, board composition and firm size jointly influences the environmental disclosure of manufacturing firms in Nigeria. Falope et al. (2019) examined the effect of environmental disclosure and performance of quoted Nigerian construction firms and found that that

environmental pollution prevention cost, environmental protection cost and environmental recycling disclosure have effects on return on assets of quoted construction firms in Nigeria. Onyali and Okafor (2018) examined the effect of firm characteristics on corporate environmental performance of quoted industrial goods firms in Nigeria and found that firm attributes (firm size, profitability and firm age) have a significant and positive effect on environmental performance. Adinehzadeh et al. (2018) investigate the association between corporate governance and environmental disclosures quality and the mediating role of environmental performance in this relationship and found that corporate governance is positively associated with environmental performance and its disclosure. Umoren et al. (2018) examined the nature of relationship existing between environmental accounting reporting and Oil companies' performance in Nigeria and found insignificant relationships between environmental accounting reporting and performance variables, that is, return on capital employed, net profit margin, earnings per share and dividend per share.

### **Conclusion and Recommendations**

This study examines the effect of audit committee attributes on environmental performance of deposit money banks in Nigeria. The model was regressed to analyze the existence of significant effect between environmental performance and independent variables (Audit Committee Size, Audit Committee Independence and Audit Committee Meeting). The study utilized ten (10) quoted deposit money banks on the Nigerian Exchange Group (NGX) that have maintained 2018 to 2022 annual financial reports. The results showed that Audit Committee Size and Audit Committee Independence have negative and significant effect on Environmental Performance of deposit money banks in Nigeria during the period under review, while Audit Committee Meeting has negative and insignificant effect on Environmental Performance of deposit money bank in Nigeria.

In light of the foregoing discussions, it is our opinion and recommendation that the following should be put in place.

1. The study recommended that audit committee members of listed deposit money banks in Nigeria should take advantage of their size in ensuring that financial reporting activities of the company is well guided so as to enhance environmental performance of listed deposit money banks in Nigeria.
2. The study recommends audit committee of listed deposit money banks should maintain their independence, as this will enhance environmental performance.
3. The committee (audit committee) should not only discuss the issue of financial performance and reporting, but also prioritize the issue of environmental performance during it meetings, this will in-turn enhance the environmental performance of listed deposit money banks in Nigeria.

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# HOW EFFECTIVE ARE THE ACTIVITIES OF SMALL AND MEDIUM SCALE ENTERPRISES (SMES) IN POVERTY ABATEMENT IN NIGERIA?

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## ABSTRACT

*This study investigated the effect of small and medium scale enterprises (SMEs) operations on poverty rate in Nigeria. The Dynamic Ordinary Least Squares (DOLS) approach was used for the empirical analysis over the period of 1995 to 2022. The DOLS result revealed that both credit to SMEs and economic growth as captured by RGDP have strong positive and significant impact on poverty alleviation since their coefficients were found to be negative and statistically significant in reducing poverty rate in Nigeria. The result also revealed that SMEs asset or wealth has a negative and significant impact on poverty rate as its coefficient was found to be positive. The result also shows that huge and idle capital acquisition by SMEs can have a significant negative impact on poverty level in Nigeria. Meaning it can increase poverty level if SMEs owners are only interested in using their credits or profit to increase their income, as well as their physical assets without recourse to increase in product line and expansion of intellectual capital. Consequently, the following recommendations among others were made: first, that Nigeria government and the monetary authority should implement more channels through which SMEs can assess credit at a minimal interest rate. Also there should be monitoring apparatus that will ensure that SMEs channel these minimal interest credits to the right business that will increase their ability to lift more people out of poverty. SMEs should on their own aspire for higher productivity rather than wanting to stack profit as idle capital in banks*

**Keywords:** Small and Medium Enterprises, Poverty, Commercial Banks, Poverty Alleviation, SMEs Asset. **JEL Classification Codes:** L39, P 36, G21, I32, L25

## 1.0 Introduction

Following the advent of the Structural Adjustment Programme (SAP) in 1986, there has been a proliferation of small and medium-scale enterprises (SMEs) in Nigeria. Consequently, SMEs have been recognized as key drivers of Nigeria's growth, because of their viable implication for job creation which has strong implications for unemployment rate reduction and in turn alleviation of poverty. Specifically, Aremu (2010) argued that small-scale enterprises play a significant role in generating income, savings, and employment. SMEs are taken into consideration as critical for developing entrepreneurial talents and indigenous technology, which in turn generate employment opportunities in the country. It has been estimated that MSMEs contribute about 46.31% to the country's gross domestic product (GDP), account for 96.7% of businesses in Nigeria and 84% of the total employment as well as employment of about 22% of Nigeria's adult population (SMEDAN, 2021, NBS, 2021). Due to their contributions to the improvement and growth of economies, SMEs are frequently known as the "engine of growth" and catalysts for the socio-economic transformation of any nation. The diverse activities of small business firms have led to the mobilization of environmental resources, and improving the standard of living of the populace. They have played a significant role in the labor market by absorbing the increasing supply and helping to reduce the unemployment rate in Nigeria. Additionally, the sector has contributed to the development of indigenous entrepreneurs, exemplified using organizations like Innoson Group of Company, Tummy-Tummy, Chikason Group of Company, Dozy Power flow, and so on.

SMEs are recognized as catalysts for socio-economic development in any country. They serve as vehicles for achieving macroeconomic objectives, such as generating employment at a low investment cost, fostering the development of entrepreneurial capabilities and indigenous technology, mitigating rural-urban migration, utilizing local resources, and alleviating poverty. Ironically, in Nigeria, despite the widespread of SMEs and its aforementioned implications for

economic growth and poverty alleviation, the scourge of poverty has been very endemic to the extent that it has become so worrisome and a call for attention. According to Ajegi (2002), approximately 2.8 billion people are living in absolute poverty globally. Poverty in Nigeria being one of the resource-rich and largest oil-exporting countries in Africa, appears to be paradoxical as amid plenty a large proportion of her population is living in multidimensional and absolute poverty (World Bank, 1996).

The rate of poverty in Nigeria has continued to experience an all-time high value, for instance, the poverty rate in Nigeria was seen to have risen from 28.1% in 1980 to 70.6% in 2007 (National Bureau of Statistics 2008). This has continued although with some few declines between the periods of 2008 to 2022 the lowest rate was 60.1 in 2013. Specifically, in 2022 going by the poverty threshold set at 1.90 U.S. dollars per day, about 88.4 million people were seen to have lived in extreme poverty in Nigeria. This figure represented an increase from the previous year when approximately 86.7 million people were living in such conditions. This alarming trend of the high rate of poverty has been a major concern as successive Nigerian governments have sought to address it and as such implemented various poverty alleviation programs amongst which are; Operation Feed the Nation (OFN) in 1979, the Green Revolution (GR) in 1980, the National Directorate for Employment (NDE) in 1986, the Directorate for Food, Roads and Rural Infrastructure (DFRRI) in 1987, the Family Support Program (FSP) in 1994, the Family Economic Advancement Program (FEAP) in 1998, People's Bank in 1989, Community Banks in 1990, the National Economic Empowerment and Development Strategy (NEEDS) in 2004, the Community Action Programme for Poverty Alleviation (CAPPA) in 1996, the National Poverty Eradication Programme (NAPEP) in 2001, and the Agricultural Transformation Agenda (2011-2015). Seven-point agenda, MDGs (millennium Development Goals), and the ongoing Sustainable Development Goals (SDGs).

Despite these programs, poverty has been prevalent in Nigeria as a large proportion of the population is found to be living below the threshold as set by the World Bank, faced with a high rate of illiteracy, poor health conditions, high rate of infant and maternal mortality rate to mention but a few. According to the 2020 UNDP report, Nigeria ranked 103rd out of 116 countries in the human poverty index (HPI) value, with an HPI value of 36. This indicates that poverty remains predominant in the country.

Apart from the aforementioned programs, a large proportion of Nigerians have moved into the informal sector in search of survival and this has increased the activity of small and medium-scale enterprises (SMEs).

SMEs, as incubators of entrepreneurship, are often driven by individual creativity and innovation. Research has it that a large proportion of the poor are involved in businesses such as dressmaking, vulcanizing, car repairs, petty trading, carpentry, car washes, dry cleaning, food selling/restaurants, etc. (Adeokun, Adedoyin, & Adereti, 2002). However, SMEs have also been said to have encountered challenges such as limited access to finance, inadequate infrastructure, and a challenging business environment which may have hindered their ability to create the required employment that is required to reduce the poverty rate (Nwakaze & Iheanacho 2017). Sequel to the above, this study seeks to empirically examine the impact of SMEs operations on the poverty level in Nigeria. The SMEs operation was proxy by access to credit/finance and SMEs capital/asset-based.

## **2.0 Literature Review**

### **2.1 Theoretical literature**

The theories that support the relationship between SMEs and poverty are the Basic Need Theory, the Capability Approach Theory, and the Structural Functionalism Theory and so on. This study therefore centers on the capability approach theory as developed by Sen (1980). This theory suggests that poverty is not just about a lack of material resources, but also about the inability to access opportunities and capabilities that enable individuals to achieve a fulfilling life. In other words, poverty is more than not having enough money, but also about being denied the ability to live a dignified life. According to the capability approach, the focus should not just be on providing individuals with material resources, but also on enabling them to develop the necessary skills and capabilities to access opportunities and achieve their full potential. In the context of small and medium-sized enterprises (SMEs) and poverty alleviation in Nigeria, the capability approach is particularly relevant since it highlights the need for

policymakers to focus on providing education and training programs that will enable entrepreneurs to create and grow successful businesses to enhance their capabilities. By adopting a holistic approach that takes into account the capabilities and opportunities of entrepreneurs, policymakers can help to promote poverty alleviation in Nigeria and enable individuals to achieve their full potential.

## **2.2 Empirical literature**

There have been mixed findings on the discourse of SMEs operations (as proxied by the access to credit and their asset base) and its implication for poverty reduction. While some studies think that loans to SMEs can act as a panacea to alleviating poverty via the employment creation and capital formation others believe that SMEs activities may not have a positive significant impact on poverty alleviation going by the enormous challenges that they are faced with. From the descriptive statistics approach front, Ogujiuba & Anyanwu (1998) explored the income effects of SMEs on poverty alleviation. The researchers found that SMEs played a vital role in increasing household income and improving the living standards of individuals. They observed that SMEs contributed to poverty reduction by providing income-generating opportunities for entrepreneurs and employees alike. The study highlighted the importance of supporting and promoting SMEs to enhance their contribution to poverty alleviation. Oyekanmi (2000) examined the relationship between SMEs and poverty alleviation in Nigeria. The study found that SMEs had the potential to alleviate poverty in Nigeria, but that there were several challenges facing SMEs, including lack of access to credit, inadequate infrastructure, and unstable government policies. The study recommended that the government should address these challenges by providing SMEs with access to credit, improving infrastructure, and creating a stable policy environment.

From the general point of view, Ayuba and Bubairu (2015) examined the effect of banking sector credit on the growth of SMEs in Nigeria for the period spanning 1985 to 2010. They employed both descriptive statistics and the error correction model for their analysis. Their result revealed a positive and significant relationship between the banking sector credit and the growth of SMEs and other macroeconomic variables in Nigeria. Mohammed and Ab-Rahim (2019) examined the relationship between SMEs and poverty in Nigeria to view the role of youth empowerment in the nexus of SMEs and poverty. Data for the study was generated from a survey technique and a questionnaire was used to collect data from 432 SMEs owners in 8 selected Local Government Areas of Niger State, Nigeria. The Partial Least Square-Structural Equation Modelling (PLSSEM) was employed to test the hypotheses. The result showed that the SMEs activities which include: employment, innovation, human capital development, and income triggered a positive impact on the socio-economic status of the people. It also revealed that youth empowerment being the moderating variable has a positive influence on the relationship between SMEs and Multidimensional poverty. The results imply that as more youths and SMEs are empowered the possibility of eradicating poverty will be very certain in Nigeria.

Similarly, Oba and Onuoha (2013) who x-rayed the role of SMEs activities on poverty reduction in Nigeria from 2001 to 2011 using the employment route with the help of the OLS techniques found SMES proxied by the SMEs' contributions to GDP to be positive and statistically significant in explaining the level of employment and hence poverty reduction which was measured by the level of employment that stems from SMEs operation.

From the angle of Microfinance banks, Okezie, et al (2013) assess the effectiveness of microfinance banks in eradicating poverty in Nigeria, using descriptive statistics on primary data with 382 respondents for 3 Senatorial districts in Imo state. The empirical results revealed that people in the high-income class can save the poor living in rural areas. Similarly, Kamel and Jalel-Eddine (2015) examined the effect of microfinance on poverty reduction using 596 microfinance banks in 57 emerging economies from 2005 to 2011. This study employed panel data analysis, and the empirical results indicate that an economy with higher microfinance institutions' gross loan portfolio per capita tends to reduce poverty levels among the people. This thereby established that microfinance bank loans can effectively alleviate poverty in the countries in the sample. Also, Ochonogor(2020) embarked on a study on the performance of

microfinance institutions (MFIs) and their impact on promoting economic development in Nigeria using the error correction model and OLS techniques. The regression result established the existence of a long-run relationship. And also found a positive relationship between the human development index and microfinance loans. This further suggests that microfinance loan has a strong implication for poverty reduction.

Again, Ngong, Thaddeus, & Onwumere, (2021) in their study on the long-run relationship between micro financial inclusion and poverty alleviation in Nigeria for the periods of 1990 to 2018, using the Engle–Granger two-step co-integration and autoregressive distributed lag (ARDL) techniques. They employed Gross domestic product (GDP) per capita a proxy for poverty reduction, Proxy micro financial inclusion with the Number of microfinance banks, borrowers of microfinance institutions, commercial bank branches, commercial bank loans to small-scale businesses, and broad money supply ratio. Their results revealed the presence of a long-run relationship between micro-financial inclusion and poverty reduction. Recently, Nwanna and Okeke (2022) in their study on microfinance credit and poverty alleviation where they used unemployment rate, capital formation, and per capita income as proxies to check poverty reduction in the face of microfinance credit with the help of the OLS technique, found a significant relationship between microfinance credit and the dependent variables (unemployment rate, capital formation and per capita income). They therefore conclude consequent on their findings that microfinance credit can reduce poverty since it appears to be significant in driving the unemployment rate, capital formation, and per capita income.

From the SMEs wealth or asset creation angle, Asikhia (2016) examined the mediating effect of wealth creation on the SMEs-Poverty alleviating relationship. The Wealth created by firms was measured by an increase in income, increase in physical assets, investments, product line expansion, increase in working capital, and enhancement of intellectual capability. Using a survey of 581 CEOs of SMEs in selected states of Nigeria with the help of descriptive statistics and OLS technique, their result found among others that poverty alleviation is highly correlated with wealth creation, and the association was highly moderated by wealth distribution. Specifically, it was observed that Wealth created by SMEs was responsible for only a 15% variation in poverty alleviation in Nigeria. This thereby suggests that people who can acquire wealth through the operation of SMEs may not be ready to distribute it.

### 2.3 Gaps in Existing literature

From the extant literature, there appears to be several literatures on issues bordering on SMEs and their operations. However, most studies have focused on the economic growth effects of SMEs, the challenges faced by SMEs, and the Employment effect of SMEs (Odili & Igbedosa, 2014; Okenwa 2008; Oboro & Ighoroje, 2011; Onuge & Ibe 2009; Ogbuabor, Malaolu & Elias 2013; Ogen 2018). There are also a handful of studies on the poverty alleviation effect of SMEs howbeit, most of the previous studies employed a theoretical or at best Meta-analysis approach rather than the empirical approach and those who attempted the empirical approach resorted to the use of descriptive statistics which appears to be insufficient for the drawing of critical inferences. It was also observed from extant literature that poverty was captured by employment and capital formation rather than using the poverty rate or indices which shows the actual poverty level as it were (Aremu & Adeyemi 2011; Ojo, Ajiboye & Ogunaike 2015). It is against this backdrop that this study therefore seeks to fill the aforementioned gaps by examining the impact of SMEs operations on the poverty level of the Nigerian economy using the empirical approach as well as using their activities irrespective of the limitations that they may have been facing in that regard.

### 3.0 Methodology

#### 3.1 Model Specification

The model of this study is a modified version of that of Nwanna and Okeke (2022) by using poverty rate to capture poverty level unlike that of their study which employed unemployment rate, capital formation and per capita income as proxy for poverty.

The mathematical specification for this study is the functional equation given as follows;  
$$POV = f(LSMEs, SMEsAB, RGDP) \quad (3.1)$$

## Econometric Model

The generalized form of the Dynamic Ordinary least squares (DOLS) econometrics model will look thus:

$$Y_t = \alpha + \beta X_t + \sum_{i=q}^{j=r} \delta \Delta X_{t-i} + \sum_{i=q}^{j=r} \varphi \Delta X_{t+j} + \mu_t \quad (3.2)$$

Equation 3.2 is with the assumption that adding  $q$  lags and  $r$  leads of the differenced regressors soak off all the long run correlation between the error term and the independent variables.  $Y$  is the dependent variable while  $\sum_{i=q}^{j=r} X$  is a vector of the explanatory variables.

The specific dynamic ordinary least squares (DOLS) with two lags and leads ( $q = 2$ , and  $r = 2$ ) for the regressors in their original form, in their differenced form and with their leads and lags forms which captured the nuisance variables to correct for any serial correlation and endogeneity problem is as follows:

$$\begin{aligned}
 \ln POV_t = & \alpha_0 + \sum_{i=1}^k \alpha_1 \ln LSMEs_t + \sum_{i=1}^k \alpha_2 \ln SMEsAB_t + \sum_{i=1}^k \alpha_3 \ln RGDP_t + \sum_{i=1}^k \alpha_4 \Delta \ln LSMEs_t \\
 & + \sum_{i=1}^k \alpha_5 \Delta \ln LSMEs_{t-1} + \sum_{i=1}^k \alpha_6 \Delta \ln LSMEs_{t-2} + \sum_{i=1}^k \alpha_7 \Delta \ln LSMEs_{t+1} \\
 & + \sum_{i=1}^k \alpha_8 \Delta \ln LSMEs_{t+2} \\
 & + \sum_{i=1}^k \sum_{i=1}^k \alpha_9 \Delta \ln SMEsAB_t + \sum_{i=1}^k \alpha_{10} \Delta \ln SMEsAB_{t-1} + \sum_{i=1}^k \alpha_{11} \Delta \ln SMEsAB_{t-2} \\
 & + \sum_{i=1}^k \alpha_{12} \Delta \ln SMEsAB_{t+1} \\
 & + \sum_{i=1}^k \alpha_{13} \Delta \ln SMEsAB_{t+2} \\
 & + \sum_{i=1}^k \sum_{i=1}^k \alpha_{14} \Delta \ln RGDP_t \\
 & + \sum_{i=1}^k \alpha_{15} \Delta \ln RGDP_{t-1} \\
 & + \sum_{i=1}^k \alpha_{16} \Delta \ln RGDP_{t-2} + \sum_{i=1}^k \alpha_{17} \Delta \ln RGDP_{t+1} + \sum_{i=1}^k \alpha_{18} \Delta \ln RGDP_{t+2} + \mu_t
 \end{aligned} \quad (3.3)$$

Where;  $\ln POV$  represents the natural logged value of poverty rate,  $\ln LSMEs$  is the natural logged value of the commercial banks' loan to small and medium scale enterprises as a total loan,  $\ln SMEsAB$  is the natural logged values of the aggregated capital based of SMEs in Nigeria, and  $\ln RGDP$  is the natural logged value of the real gross domestic product which is a proxy for economic growth. Note the variables were logged with the intention to put all variables in the same magnitude and to capture their elasticity values.

$\alpha_1$  –  $\alpha_3$  are the parameters of interest while,  $\alpha_4$  to  $\alpha_{18}$  are the nuisance variables parameters which soak up all forms of serial correlation and endogeneity problems should they be present.

The a priori expectations of the regressors are as follows:  $\alpha_1, \alpha_2, \alpha_3 < 0$ , this implies that commercial banks' loan to SMEs, SMEs asset based and RGDP are expected to influence poverty level positively, that is, they are supposed to cause a decline in the level of poverty all things being equal.

### **3.2 Data and Method of Analysis**

This study employed time series data from Nigeria for the periods of 1995 to 2022. The data employed in this article were extracted from the National Bureau of Statistics and the Central Bank of Nigeria statistical bulletin (2022) as well as the Small and Medium Scale Enterprises Database (SMEDAN). The Dynamic ordinary least square (DOLS) method as advanced by Stock and Watson (1993) was employed for the analysis. The DOLS model is a robust single equation model that addresses the problems of endogeneity and serial correlation with the help of the leads and lags as included in the model. The choice of this technique is attributed to the following: it can be applied to variables that are integrated in order one or zero or both, its ability to deal with feedback effects without the use of instrumental variables, it can be applied in a small or large sample, the fact that applying normal OLS in the estimation of the long-run relationship of a co-integrated series will yield inconsistent and inefficient coefficients, and the fact that it does not require any theoretical basis for choosing the leads and lags to be used rather experts are required to use the general to a specific approach to expunge any unwanted lead and lag until they arrive at an appropriate number of leads and lags that can solve the endogeneity or serial correlation problems. This technique followed the three steps sequences which include; conducting the unit root test to ascertain the stationarity level of the variables, carrying out a co-integration test to assess the presence of long-run relationship among the variables, and lastly, estimating the DOLS result. The appropriate post-diagnostic tests were also conducted for robustness and reliability checks.

## **4. Results and Discussion**

### **4.1 Descriptive statistics.**

**Table 4.1 Descriptive Statistics**

	POV	LSMEs	SMEsAB	RGDP
Mean	66.26661	316561.6	713672.7	46547.42
Median	69.50000	255272.4	449877.6	46012.52
Maximum	71.50000	1596489.	2818272.	71387.83
Minimum	54.10000	54144.44	107691.6	20353.20
Std. Dev.	6.151030	330008.9	780619.9	19221.70
Skewness	-1.013305	2.375057	1.582394	-0.052843
Kurtosis	2.399141	9.481915	4.423614	1.407202
Jarque-Bera	5.026698	72.65117	13.54788	2.866698
Probability	0.080997	0.000000	0.001143	0.238509
Sum	1789.198	8547163.	1256780.	19269163
Sum Sq. Dev.	983.7145	2.83E+12	9.61E+09	1.58E+13
Observations	27	27	27	27

**Source: Author's Computation (2023) extracted from E-views 10 output**

Table 4.1 contains the descriptive statistics of the variables employed in the study. The Poverty rate in Nigeria has maximum and minimum values of about 71.5% and 54% respectively and an average value of 66.2% (SD = 6.15) in the period of 1995 to 2022. The standard deviation of the country's poverty variable suggests a minimal variation from the mean over the period under study. The Jarque-Bera value of 5.02 and its probability value of 0.08 which appears to be greater than 0.05 shows that poverty rate data was not significant at the 5 percent level hence, it is said to be normally distributed.

Commercial banks' loan to SMEs (LSMEs) in Nigeria has maximum and minimum values of about 1596489 and 54144.44 million naira respectively. LSMEs in the sample showed an average and standard deviation as ( M = 316561.6, SD = 30008.9 ). The SD suggests a huge variation from the mean over the period under study. SMEs values also known as its asset base in Nigeria have a maximum value of 2818272, a minimum value of 107691.6, and a mean value of 316561.6 ( SD = 780619.9 ) which shows fast variation over time for the period under study. The real GDP has maximum and minimum values of about 71387.83 and 20353.20 respectively.

The mean value for the RGDP was 46547.42 naira (SD = 19221.70) for the period under consideration. The Jarque-Bera value of 2.87 and its probability value of 0.23 which appears to be greater than 0.05 shows that the dataset of RGDP was not significant at the 5 percent level hence, it is said to be normally distributed.

#### **4.2 Correlation Coefficient Test.**

The correlation matrix table shows the relationship or degree of association among the variables in the model.

**Table 4.2 Correlation Matrices.**

	<b>POV</b>	<b>LSMEs</b>	<b>SMEsAB</b>	<b>RGDP</b>
<b>POV</b>	1	0.0776	0.2334	0.4041
<b>LSMEs</b>	0.0776	1	0.7059	0.2302
<b>SMEsAB</b>	0.2334	0.7059	1	0.4341
<b>RGDP</b>	0.4041	0.2302	0.4341	1

**Source: Author's Computation (2023) extracted from E-views 10 output**

From the correlation matrix results as presented in Table 4.2, a positive and moderate correlation was found to run between the explanatory variables and the dependent variable. The result also revealed a moderate positive correlation between the independent variables. Consequently, suffice it to say that there is not likely going to be multicollinearity problem among the explanatory variables as the highest correlation between the explanatory variables was 0.70.

#### **4.3 Unit root test.**

**The unit root tests are conducted for both levels and first differences of the variables of the model. The results of the unit root tests (ADF) test results are shown in Table 4.3.**

**Table 4.3 Unit root test**

Variables	ADF Statistic	test	ADF critical Values 5% level	Remark	Order of integration
POV	-5.601108		-2.986225	Stationary	I(1)
LSMES	-2.976624		-2.629906	Stationary	I(0)
SMESAB	5.099886		-2.991878	Stationary	I(1)
RGDP	-3.403773		-3.004861	Stationary	I(0)

**Source: Author's Computation (2023) extracted from E-views 10 output**

Based on the result in Table 4.3, the variables under study were found to be stationary at levels and first differences. Precisely Poverty rate (POV) and SMEs asset base (SMESAB) were found to be non-stationary at level but only became stationary at first difference whereas, commercial banks' loans to SMEs (LSMES) and RGDP were both stationary at levels.

#### **4.4 Bounds Test for Cointegration**

**Table 4.4 Bounds Test for Cointegration**

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic:n=1000	
F-statistic	3.773213	10%	2.08	3
K	5	5%	2.39	3.38
		2.5%	2.7	3.73
		1%	3.06	4.15

**Source: Author's Computation (2023) extracted from E-views 10 output.**

Going by the co-integration result as presented in Table 4.4, the F-statistics of 3.773 is greater than the critical values of 2.39 and 3.38 at the 5% significance level for both the lower and upper bound respectively. Consequently, we fail to accept the null hypothesis of no levels of co-integrating relationship; hence, there is a long-run relationship between the endogenous and the exogenous variables in the model.

#### 4.5 Dynamic Ordinary least Square (DOLS) Regression Results.

**Table 4.5 DOLS Regression result POV as dependent variable**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNLSMEs	-1.955931	0.213272	-9.171066	0.0027
LNSMEsAB	1.483527	0.162405	9.134753	0.0028
LNRGDP	-0.638771	0.095118	-6.715540	0.0067
C	15.57605	1.509383	10.31948	0.0019
	R-squared: 0.958469 Adjusted R-Squared: 0.709283			
	F-statistic (Wald Test): 9837.049 Prob.Value( 0.000)			
	Normality Test: (0.025) Prob-value: (0.987)			
	Serial Correlation LM: 27.51390: Prob.value (0.1336)			

**Source: Author's Computation (2023) extracted from E-views 10 output.**

From Table 4.5, the coefficient of determination is approximately 0.96 and the adjusted R-squared of about 0.71 after adjusting for degree of freedom. This implies that 96% of the variations in poverty level were explained by all the independent variables (LNLSMEs, LNSMEsAB and LNRGDP). This is quite a good fit as merely 4% of the systematic variation is left unexplained but captured in the model by the stochastic error term.

From the result, commercial banks' loan to SMEs (LNLSMEs) was found to have a negative and statistically significant impact (at 1% level of significance as the p-value which stood at 0.0027 was less than 0.05) on the poverty rate. This result supports the apriori expectation; the result showed explicitly that *ceteris paribus*, a 1% increase in the commercial banks' loan to small and medium scale enterprises in Nigeria, will translate into a reduction of poverty rate by 1.956 which is about 195.6%. This is so because as SMEs receive loans they tend to invest the funds into productive business that will require them to employ more labour who ordinarily may have little or no income source before this time. This will in no small measure pull people out of poverty and in turn, reduce the poverty rate. The coefficient of small and medium scale enterprises asset base (LNSMEsAB) was found to be positive and significant at a 1% level of significance in affecting poverty level in Nigeria judging by the probability value of 0.0028 which happens to be less than 0.05. This sign negated the apriori expectation as it implies that holding other things constant, as SMEs asset increases by 1%, it will lead to an increase in the poverty rate by 1.483 units or about 148.3%. This may be attributed to the fact that some SMEs choose to use their profit to acquire an increase in income, increase in physical assets such as buildings and vehicles that do not imply job creation, increase in product line, and expansion of production of goods and services that will increase economic activity and in turn reduce poverty. Real Gross domestic product (LNRGDP) was found to also have a negative and statistically significant impact (at a 1% level of significance as the p-value which stood at 0.0067 was less than 0.05) on the poverty rate. This implies that all things being equal the higher the Real GDP the lower the poverty rate. This result is in line with economic theory. Because a high GDP will translate to an increase in aggregate demand that will trickle down to the poor. This will be the case if the growth is pro-poor.

#### 4.6 Post Diagnostic Tests

This section reports the various post-estimation diagnostic tests that were used to ascertain the robustness as well as the validity of the estimated results. They include the Wald test, the Breusch-Godfrey Serial Correlation LM Test, the Breusch-Pagan-Godfrey heteroskedasticity test, and the normality test.

**Table 4.5.1: Wald Test:**

Test Statistic	Value	Df	Probability
F-statistic	9837.049	(4, 3)	0.0000
Chi-square	39348.19	4	0.0000

**Source: Author's Computation (2023) extracted from E-views 10 output.**

From the Wald test as presented in table 4.5.1, the F-Statistics values of 9837.049 and its

probability value of 0.000 show that the model is statistically significant and as such will conclude that the model passed the linearity and joint significant test.

**Table 4.5.2: Breusch-Godfrey Serial Correlation LM Test:**

F-statistic	27.51390	Prob. F(2,1)	0.1336
Obs*R-squared	21.60734	Prob. Chi-Square(2)	0.0000

**Source: Author's Computation (2023) extracted from E-views 10 output.**

The Serial correlation LM Test as presented in Table 4.5.2 is estimated with a null hypothesis that states that there is no serial correlation in the model. Since the probability value of the F-Statistic which stood at 0.1336 is greater than 0.05, it implies that it is not significant at a 5% level of significance, we therefore do not have enough evidence to reject the null hypothesis as stated above. Hence, we say that this model is void of any serial correlation problem.

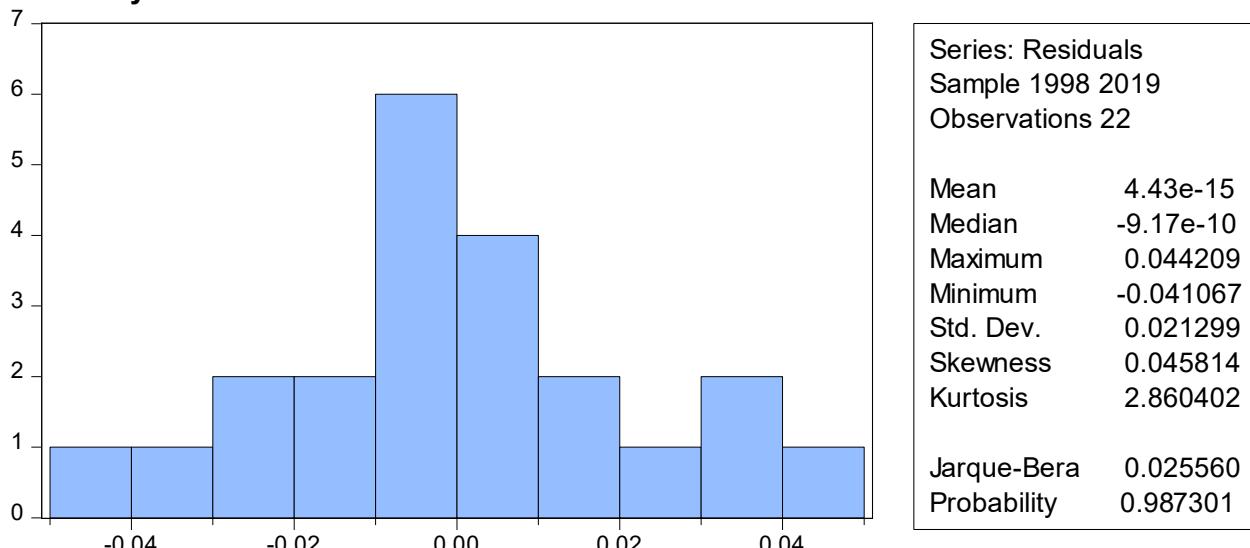
**Table 4.5.3 Heteroskedasticity Test: Breusch-Pagan-Godfrey**

F-statistic	3.464643	Prob. F(18,3)	0.1670
Obs*R-squared	20.99026	Prob. Chi-Square(18)	0.2799
Scaled explained SS	0.363071	Prob. Chi-Square(18)	1.0000

**Source: Author's Computation (2023) extracted from E-views 10 output.**

Table 4.5.3 above presents the result of the Heteroskedasticity Test. The null hypothesis is that there is Heteroskedasticity problem in the model. Since the probability value of the F-Statistics which is 0.1670 is seen to be greater than 0.05 thereby implying that we cannot reject the null hypothesis of no Heteroskedasticity problem.

#### Normality Test



**Figure 4.1: Histogram Normality Test**

**Source: Author's Computation (2023) extracted from E-views 10 output.**

The Jarque-Bera test of normality as seen on the histogram showed that the residual series from the model was normally distributed since the probability value of the JB test was found to be 0.987 which is greater than 0.05. Thus, the null hypothesis of normal distribution of the residual series was therefore accepted.

#### 4.7: Test of Hypothesis/Discussion of Findings

The null hypotheses of this study going by the objectives were that commercial banks' loan to SMEs has no significant impact on poverty rate as well as that there is a significant relationship between SMEs capital base and the poverty rate in Nigeria.

##### **H<sub>01</sub>: Commercial bank loans to SMEs has no significant impact on the poverty rate.**

As observed from the DOLS result, LNLSEMs were found to have a negative significant impact on the poverty rate at a 1 percent level of significance going by which is less than 0.05. Hence, we fail to accept the null hypothesis that there is no significant relationship between commercial banks' loans to SMEs and the poverty rate in Nigeria within the period under study. This result shows that loan to SMEs has a significant positive impact on the poverty rate as it was seen to trigger a reduction or alleviation of poverty rate even though the rate of reduction appears to be very minimal. This result is in tandem with the findings of (Nwanna & Okeke 2022; Ngong, et al, 2021; Ochonogor 2020; Kamel & Jalel-Eddine 2015; Okezie, Bankoli, & Ebomuche 2013; Oykanmi 2000, Ogunjinba & Anyanwu 1998).

##### **H<sub>02</sub>: SMEs Assets have no significant impact on the poverty rate.**

The estimated coefficient of LNSMEsAB is positive and significant at the 1 percent level of significance based on the probability value that is less than 0.05. Therefore, we do not have enough evidence to accept the null hypothesis that the SMEs asset base does not significantly affect poverty level in Nigeria. This also shows that Huge and idle capita acquisition by SMEs can have a significant negative impact on poverty level in Nigeria. This means it can increase poverty levels if SMEs owners are only interested in using their credits or profit to increase their income, as well as their physical assets without recourse to increase in product line and expansion of intellectual capital. This finding negates that of (Asikhia 2016) who found that Wealth created by SMEs was responsible for about 15% variation in poverty alleviation in Nigeria.

#### 5. Conclusion and Policy Recommendation.

This research investigated the effect of Small and medium-scale enterprises (SMEs) operations on poverty rate in Nigeria. The DOLS approach was used for the empirical analysis for the period of 1995 to 2022. The necessary preliminary tests such as descriptive statistics, correlation analysis, unit root test, and co-integration test were also conducted. The DOLS result revealed that both credit to SMEs and economic growth as captured by RGDP have a strong positive and significant impact on poverty alleviation since their coefficients were found to be negative and statistically significant in reducing poverty rate in Nigeria. The result also revealed SMEs asset or wealth has a negative and significant impact on the poverty rate as its coefficient was found to be positive. This also shows that huge and idle capita acquisition by SMEs can have a significant negative impact on poverty level in Nigeria. This means it can increase poverty levels if SMEs owners are only interested in using their credits or profit to increase their income, as well as their physical assets without recourse to increase in product line and expansion of intellectual capital.

Consequently, in pursuance of poverty alleviation, we hereby recommend that the Nigeria government and the monetary authority should implement more channels through which SMEs can assess credit at a minimal interest rate. Also, there should be a monitoring apparatus that will ensure that SMEs channel these minimal interest credits to the right businesses which will increase their ability to lift more people out of poverty. The government should enact laws that will guide the employment process among SMEs to encourage them to employ citizens based on their capacity. SMEs should on their own aspire for higher productivity rather than wanting to stack profits as idle capital in banks.

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# CORPORATE GOVERNANCE AND FINANCIAL PERFORMANCE AMONG LISTED CONSUMER AND INDUSTRIAL GOODS COMPANIES IN NIGERIA

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## Abstract

The study investigates corporate governance and financial performance among consumer and industrial goods companies listed in the Nigerian Exchange Group. The vacillating nature of findings in prior studies may have been due to the choice of financial performance proxy used. The study adopts the longitudinal research design, with a population of thirty five (35), twenty one (21) consumer goods and fourteen (14) industrial goods companies as at 31<sup>st</sup> December, 2022. The study took a census of the entire firms, however could only access eighteen (18) of the consumer goods companies, making a total of thirty two (32) companies. The data was sourced from the audited annual report of the sampled companies during the period 2017 to 2022. The result random estimation result reveal that, board size and independence exhibit significant impact on ROE with inverse and positive relationship respectively while audit committee size and audit committee independence exhibit inverse insignificant impact with ROE. The joint explanatory power of the models revealed 34.2%. The study concludes that positive signs of the explanatory variables and the explanatory power of 34.2%, one can safely conclude that board and audit committee attributes has the potential to determine an organisation bottom lines such as financial performance.

## 1. Introduction

According to Akinleye et al. (2019), the tendency of a firm to survive the dynamics of business environment is to a greater extent influenced by the soundness of the components that defined the corporate governance of the organization, because corporate governance is fundamentally the corporate path through which the interrelation between the organization and society as whole can be put in the right perspectives, in order to foster optimum resources management and performance.

Over the years, efforts have been made by researchers (Al-Jalahma, 2022; Okolie & Ogbaram, 2022; Akinleye et al., 2019; Urhoghide & Korolo, 2017) to establish or investigate the influence of corporate governance on financial performance of quoted manufacturing firms in Nigeria. Surveys of empirical studies revealed that consensus have not been reached on the association between corporate governance and financial performance of quoted manufacturing firms in Nigeria such as the consumer and industrial goods companies. Udo and Ogbuagu (2012) opined that the manufacturing sectors, such as the consumer and industrial goods companies among others, if well developed, is a major driver of growth in any economy. However, in Nigeria, it is quite unfortunate that the sector has been performing below expectation, leading to decline in industrial productivity, which has caused the sector to contribute less than 5% to the Gross Domestic Product (Udo & Ogbuagu, 2012). Mesagan et al. (2018) added that ill-treated and malfunctioning of the sector, as a result of poor financing, epileptic power supply, dilapidated and obsolete infrastructure, perennial security challenges, smuggling and massive importation of finished goods, as well as poor corporate governance has been the major challenges that have retarded the sector's performance.

Similarly, Victoria (2019) opined that, the manufacturing firms, such as those in the consumer, industrial etc. sectors is regarded as a very important sector in an economy because of its capacity to foster wide and efficient backward and forward linkages among other sectors

of the economy. In the same vein, studies on other sectors had found mixed results. This mixed result may not be unlikely due to the proxy used in prior studies, as most studies adopted the use of the return on assets as a measure of financial performance. In order to have an adequate understanding of how corporate governance influences financial performance, this study adopts the use of ROE in measuring financial performance.

## **2. Literature Review**

### **2.1 Firm Performance**

The performance of organizations in a society is seen as a vital foundation for sustainable economic advancement (Lazăr, 2016). Companies that perform very well and make profit, reduce unemployment in any nation. They employ citizens of a nation, create value, encourage creativity, and contribute to government revenue by way of tax payment which promotes the wellbeing of the citizenry. Firm performance is a tool used in determining corporate expansion and possible enlargement (Kim et al., 2021). Eruemegbe (2015) described operating performance as the ability of an organization to accomplish some specific corporate goals and objectives. Performance is essential to every corporate organization because it enhances corporate existence and continued investment by existing and potential shareholders as well as stakeholders (Andow & David, 2016). Every corporate organization has a determination of making profits. This determination is crucial because the attitude of an organization towards profit making in an aggressive (competitive) business environment guarantees significantly its capacity for continuous stay in business (Andow & David, 2016).

### **2.3 Corporate Governance**

Corporate governance is defined as the relationship among the corporation and all of its stakeholders (Arsoy & Crowther, 2008). Similarly, La porta et al. (2000) view corporate governance as a set of mechanisms through which outside investors protect themselves against expropriation by insiders, (i.e., the managers and controlling shareholders). Examples of these expropriations by the insiders include fraud, selling the output, the assets or securities of the firm they control to another firm they own at below market prices; divert corporate opportunities from firms; put unqualified family members in managerial positions; or overpay managers. This expropriation is central to the agency problem described by Jensen and Meckling (1976) and corporate governance is expected to minimize this conflict of interest between management and shareholders given the separation between ownership and control (Baydoun et al, 2012). The role of corporate governance according to Salabomi and Uwugbe (2013) is to reduce the divergence of interest between shareholders and managers. It remains one of the most important determinants in ensuring the quality of the financial reporting process.

## **2.4 Corporate Governance Mechanism**

### **2.4.1 Board Size and Financial Performance**

Board size of an organization is the number of directors on board of the organization which includes executive and non-executive directors (Sethuraman et al., 2018). According to Herdjiono and Sari (2017), the board of directors is the center of control in the company and this board has ultimate responsibility for the health and long-term success of the company. Oyedokun et al. (2017) defined board size as the totality of all the directors either it independent and executive. According to Dabor et al. (2015), there have been diverging opinions by various researchers on the number of persons that should make up an ideal board. Some schools of thought are of the opinion that a small board is more effective because it enhances fast decision making and cannot be manipulated by management. Board size simply means the number of people that make up a corporate board. Board size somewhat varies from country to country (Onatuyeh & Odu, 2019). In Nigeria, the minimum board membership for all listed firms as stipulated by the Securities and Exchange Commission (SEC) code of corporate governance (2009) is five (5). The debate remains to the present day as to whether large or small boards are more effective in performing their oversight functions (Onatuyeh & Odu, 2019).

Akinleye et al. (2019) examined corporate governance and performance of selected Nigerian multinational firms from 2012 to 2016. The study revealed that board size exerted

significant negative impact on return on asset. Urhoghide and Korolo (2017) examined the effect of corporate governance on financial performance of quoted oil and gas companies in Nigeria during the period 2008 to 2015. The study found that board size has significant positive impact on financial performance. Herdjono and Sari (2017) examined the influence of the size of the board of directors, audit committee on the financial performance of manufacturing companies listed on the Indonesia Stock Exchange. The study analyses 156 Indonesia firms listed on the Indonesia Stock Exchange using linear regression analysis. The results indicated that the size of the board of directors has a positive effect on financial performance. Ademola et al. (2016) investigate the relationship between corporate governance and firm's performance. The study adopted ex-post facto research design. The results of the study show that board structure index had a significant positive relationship with performance (ROA) of the sampled manufacturing companies. Dabor et al. (2015) examined the impact of corporate governance on firm performance of selected companies quoted on the Nigerian stock exchange. A sample of 248 companies was selected employing simple random sampling technique. The study results reveal that there is significant negative relationship between board size and firm financial performance.

#### **2.4.2 Board Independence and Financial Performance**

Board independence is the number of non-executive directors on board of a company. It is the ratio of non-executive directors to total directors (Kakanda et al., 2016). Abu et al. (2016) opine that non-executive directors are outside directors who are independent of the company. They are called independent directors because they have neither personal nor business relationships with the company. Dabor et al. (2015) asserted that executive directors are more familiar with the firm's activities, therefore are in a better position to monitor top management. On the other hand, it is contended that non-executive directors may act as "professional referees" to ensure that competition among insiders stimulates actions consistent with shareholder value maximization. Enilolobo et al. (2019) examined the corporate governance and financial performance of listed firms in Nigeria; comparing the food and petroleum products industries. The study used secondary data for ten (10) listed food and petroleum firms over a period of seven (7) years (2011-2017). The results show that corporate governance mechanisms of board independence have positive effect on financial performance of the food and petroleum firms in Nigeria. Akingunola et al. (2018) examined corporate governance mechanisms and financial performance of quoted manufacturing companies in Nigeria. The sample consist of fifty (50) listed manufacturing companies on the Nigerian Stock Exchange. The results shows that number of non-executive directors have direct relationship with ROA. Dabor et al., (2015) examined the impact of corporate governance on firm performance of selected companies quoted on the Nigerian stock exchange. A sample of 248 companies was selected employing simple random sampling technique. The study results reveal that there is significant negative relationship between board independence do not have significant impact on firm performance.

#### **2.4.3 Audit Committee Size and Financial Performance**

Ibadin and Elijah (2015) opined that the size of audit committee is referred to as the number of directors appointed to be members in the audit committee, in this regard there could be small, medium and large audit committees. The size of an audit committee may have effect on its effectiveness and ultimately on the quality of financial reporting (Mbobo & Umoren, 2016). In Nigeria, the Companies and Allied Matters Act, 2020 states that a public limited liability company should have an audit committee (maximum of five members, three members shall be representative of shareholders while two share be non-executive directors) with at least one member being a member of a recognized professional accounting body in Nigeria established by an Act of National Assembly. According to Eyenubo et al. (2017) the important role of audit committee is to oversee the integrity of financial statements, the efficiency and effectiveness of internal control system and monitoring of both internal and external auditors. The existence of audit committee members could help to balance different views of management and external auditor and to provide high financial reporting reports (DeFoond & Jiambalvo, 1991). Bradbury et al. (2006) examine the impact of audit committee size on financial reporting quality on the listed firms on Singapore exchange in fiscal year 2010. The findings reveal that audit committee size with incremental independence leads to higher financial reporting quality.

Al-Muzaiqer et al. (2018) opine that the role of the audit committee necessitates adequate resources to ensure its efficient performance. One of these resources is its sufficient size. A larger audit committee, with sufficient resources, can address issues faced by the company more effectively. This could reduce agency problems in a timelier manner. Thus, it is expected that a large number of audit committee members, through the diversity of their knowledge, can influence financial reporting quality. Chukwu and Nwabochi (2019) posit that an audit committee with large membership is blessed with different viewpoints in deliberating on financial reporting issues. It also enables the committee to handle several financial reporting issues simultaneously thereby leading to timely completion of external audit. However, large size audit committee encounters free riders problem and difficulties in co-ordination.

Al-Jalahma (2022) investigated the relationship between audit committee characteristics and corporate performance among listed firms in Bahrain. The study sampled the entire fourteen (14) non-financial publicly quoted firms on Bahrain Bourse. The study covered the period of 2005 – 2019. The result revealed that audit committee size does not promote corporate financial performance among listed firms in Bahrain. Okolie and Ogbaragu (2022) conducted a study on audit committee attributes and financial performance among listed deposit money banks in Nigeria during the period. The study revealed that audit committee size positively and significantly promotes the financial performance of deposit money banks in Nigeria. Otemu and Otemu (2021) examined the influence of audit committee characteristics and financial performance of listed service companies in Nigeria during the period 2012 to 2019. The study revealed that audit committee size promote financial performance of listed service companies in Nigeria positively and significantly. Ihayen (2021) conducted a study on the relationship between audit committee attributes and corporate value among quoted insurance companies in Nigeria during the period 2012 to 2019. The study revealed that audit committee size promote firm value negatively and insignificantly. Elbahar et al. (2021) examined the influence of audit committee on the financial performance of listed banks from 2013 to 2017. The result revealed that audit committee size significantly enhance the performance of banks. Oudat et al. (2021) examined audit committee characteristics and financial performance of listed service sector in the Bahrain Stock Exchange from 2012 to 2019. The study found that audit committee size does not promote financial performance.

#### **2.4.4 Audit Committee Independence and Financial Performance**

Audit committee independence is the ability of committee to discharge its function without influence from auditors and management (Salawu et al., 2017). According to Oji and Ofoegbu (2017) an independent audit committee member is a person who is not employed by or providing any services to, the organization beyond his or her duties as a committee member. Oji and Ofoegbu (2017) buttress that “the expectation is that independent audit committee members will be more objective and less likely to ignore possible deficiencies in the misappropriation and manipulation of financial reporting”. Accordingly, Kibya et al. (2016) explained that the audit committee should comprise three non-executive board members and three shareholders elected from among them at each annual general meeting. However, the board appoints audit committee representatives and presents them to shareholders for their approval at the annual general meeting (Kibya et al., 2016). The idea of splitting the audit committee membership into an equal number of representations is to ensure the independence of the committee, thereby creating more confidence in the board activities, enhanced financial control and more credibility to the workings of the committee and company’s financial reporting process (Kibya et al., 2016). Alqatamin (2018) posit the independence of the audit committee from managers will allow the committee to take an independent view of the financial reporting process of the company and ensure that the committee is not dominated by managers, leading to a higher financial performance.

Al-Jalahma (2022) investigated the relationship between audit committee characteristics and corporate performance among listed firms in Bahrain during the period 2005 to 2019. The study sampled the entire fourteen (14) non-financial publicly quoted firms on Bahrain Bourse. The result show that audit committee independence does not promote corporate financial performance among listed firms in Bahrain. Okolie and Ogbaragu (2022) examined audit committee attributes and financial performance among listed deposit money banks in Nigeria during the period 2011 to 2020. The result show that audit committee independence positively and significantly promotes the financial performance of deposit money banks in Nigeria. Eni-

Egwu, et al (2022) investigated the relationship between corporate governance and financial performance of listed deposit money banks in Nigeria during the period 2010 to 2019. The result show that audit committee independence negatively and insignificantly promote financial performance of listed deposit money banks in Nigeria. Otemu and Otemu (2021) examined the influence of audit committee characteristics and financial performance of listed service companies in Nigeria during the period 2012 to 2019. The result show that audit committee independence promote financial performance of listed service companies in Nigeria positively and significantly. Iheyen (2021) examined the relationship between audit committee attributes and corporate value among quoted insurance companies in Nigeria during the period 2012 to 2019. The result show that audit committee independence promote firm value positive and significantly. Elbahar et al. (2021) examined the influence of audit committee on the financial performance of listed banks from 2013 to 2017. The study utilized the bivariate, multivariate tests as well as regression analysis in estimating the data. The study discovered that audit committee independence does not significantly enhance the performance of banks. Oudat et al. (2021) examined audit committee characteristics and financial performance of listed service sector in the Bahrain Stock Exchange from 2012 to 2019. The study utilized the linear panel regression in estimating the data.

### 3. Methodology

The study adopts the longitudinal research design. The population is the entire twenty one (21) ad fourteen (14) consumer and industrial goods companies respectively listed on the Nigerian Exchange Group as at 31<sup>st</sup> December, 2022. The study took a census of population, however could only access eighteen (18) of the financial statement of the consumer goods, making a total of thirty companies. The data is secondary in nature, sourced from the audited annual report of the sampled companies. The data was estimated using the panel estimation technique.

#### **Theoretical framework and model specification**

The model for the study is anchored on the agency theory. The theory was propounded by Berle and Means (1932), however popularized by Jensen and Meckling (1976). In its simplest form, agency theory explains the agency problems arising from the separation of ownership and control. It provides a useful way of explaining relationships where the parties' interests are at odds and can be brought more into alignment through proper monitoring and a well-planned compensation system (Davis et al., 997). One organ of monitoring is the board of directors, hence this study adopts the composition of the board in aligning the differing interest between managers and shareholders, which is expected to have implication in organization outcomes such as performance. Again, the study adopts a sub-organ of the governance matrix, the audit committee in exploring how well firms can fare in the context of their financial performance. Premised on the agency theory, and adapting the studies of Eniololo et al. (2019) and Iheyen (2021), the model for this study is stated below:

$$ROE_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BND_{it} + \beta_3 ACS_{it} + \beta_4 ACND_{it} + \mu_{it} \quad (i)$$

Where: ROE= return on equity, BS= board size, BND= board independence, ACS= audit committee size, ACND= audit committee independence,  $\beta_0$ = constant,  $\beta_1 - \beta_4$  = unknown intercept,  $i$ = cross sections (1...32),  $t$ = time (1...6),  $\mu$ = error term.

#### **3.1 Measurement of variables**

Table 1: Measurement of variables.

Variable	Acronyms	Measurement	Source	Apriori Sign
<b>Dependent variable</b>				
Financial performance	ROE	Profit after tax as a ratio of total equity	Iheyen (2021)	Nil
<b>Independent variable</b>				
Board of directors' size	BS	Number of members in the board of directors	Eniololo et al., (2019)	+
Board of directors' independence	BND	Ratio of independent non-executive directors to total number of directors	Eniololo et al., (2019)	+

Audit committee size	ACS	Number of members in the audit committee	Iheyen (2021)	+
Audit committee independence	ACND	Ratio of executive director on the audit committee	Iheyen (2021)	+

**Source: Researcher's Compilation from Previous Studies (2024)**

### **3.3 Method of data analysis**

The study employed the panel least square estimation technique due to the suspicion of heterogeneity problem. The approach is to first conduct the random effect estimation, and thereafter ascertain whether the result is undermined by conducting the hausman test. If the hausman test probability value is significant at 5% (huamsn p-value>0.05), this suggests that the result is undermined, hence there is the need to conduct the estimation using mean-corrected values, i.e. the fixed estimation result.

## **4. Presentation and discussion of results**

Table 2: Result of the descriptive statistics

Variables	Mean	Max.	Min.	Std. Dev.	J-Bera.	Prob.	Obs.
ROE	0.102	2.557	-3.723	0.547	411	0.000	189
BS	9.857	18.000	4.000	3.280	8.167	0.017	189
BND	0.666	1.125	0.375	0.120	0.389	0.823	189
ACS	5.661	9.000	4.000	0.946	10.522	0.005	189
AUCND	0.485	0.833	0.333	0.080	194	0.000	189

Source: Compiled from E-Views 9 (2024)

Table 2 shows the descriptive statistics for the variables. As observed, the mean return on equity stood at 0.102, which suggests the average returns in form of the ratio of profit after tax on equity is about 10.2% level. The mean return on asset stood at 0.050, which suggests the average returns in form of the ratio of profit after tax on asset is about 5% level. The mean for board size stood at 9.857, which suggests the average board members for the sampled companies about 9 members. The mean for board independence stood at 0.666, which suggests the average ratio of non-executive directors to total members is about 66.6%. The mean for audit committee size stood at 5.661, which suggests the average audit committee members for the sampled companies about 5 members. Finally, the mean for audit committee independence stood at 0.485, which suggests the average audit committee executive members for the sampled companies about 48.5%. Jacque-Bera probability values were all significant ( $p<0.05$ ) which indicates the presence of outliers in the distribution is not unlikely with exception to board independence. However, this does not give a cause for concern.

Table 3: Result of the correlation matrix

Variables	ROE	BS	BND	ACS	AUCND
ROE	1				
BS	-0.121* (0.099)	1			
BND	0.138* (0.061)	0.197** (0.007)	1		
ACS	0.047 (0.522)	0.376*** (0.000)	0.100 (0.174)	1	
AUCND	0.008 (0.913)	0.174** (0.017)	0.088 (0.230)	0.263*** (0.000)	1

Source: Compiled from E-Views 9 (2024)

Table 3 shows the correlation relationship between the firm financial performance (using ROE) which is the dependent variable and board and audit committee attributes. The correlation statistics gives an indication of the direction and magnitude of relationships between the variables. Positive correlations indicate that increase in one variable is associated with increases in the other and vice-versa. The results reveal that ROE positively correlates with BND ( $r= 0.061$ ), ACS ( $r=$

0.047) and AUCND ( $r= 0.008$ ) while it inversely correlates with BS ( $r= -0.121$ ), with board size and board independence showing significant relationship at 10%. The correlation coefficient between each pair of independent variables did not exceed 0.80 values, hence the problem of multicollinearity among the explanatory variable is unlikely.

#### 4.1. Panel regression results, test of hypotheses and discussion of results

Table 5: Panel regression output

	A priori signs	Random Estimation.		Fixed Estimation.	
		Coefficient	p-values	Coefficient	p-values
<b>ROE</b>					
C		-0.427	0.269	-0.519	0.316
BS	+	-0.030*	0.072	-0.026	0.358
BND	+	0.825**	0.032	1.007**	0.040
ACS	+	0.050	0.317	0.031	0.583
AUCND	+	-0.014	0.979	0.047	0.938
<b>Model Parameters</b>					
R <sup>2</sup>		0.342		0.358	
Adjusted R <sup>2</sup>		0.321		0.211	
F-statistic		2.003*		2.436***	
Prob. (F-stat)		0.096		0.000	
Durbin-Watson		1.87		2.15	
Hausman p-value		0.952			

**Source:** Compiled from E-Views 9 (2024). \* = Sig @10%; \*\* = Sig @ 5%; \*\*\* = Sig @ 1% levels  
Table 5 above, shows the regression result using ROE measure of performance. The random effect estimation is preferred to the fixed effect estimation as revealed by the hausman test result ( $p=0.952$ ). This implies that the unobserved effect in each of the cross section correlating with the error term is not significant to undermine the estimated result. Relying on the random effect result, the result show that  $R^2$  is 0.342 which suggests that the explanatory variables jointly explains about 34.2% of systematic variations in financial performance with an adjusted value of 0.321. The F-stat (2.003) and p-value (0.096) indicates that the hypothesis of a significant linear relationship between the dependent and independent variables cannot be rejected at 10% level while the D.W statistics of approximately 2 indicates that the presence of serial correlation in the residuals is unlikely.

#### 4.2 Test of Hypotheses and Discussion of Findings

For board size which showed an inverse relationship with financial performance, though significant, ***the study upheld the alternate hypothesis of a significant impact between board size and financial performance.*** However, board size being inversely signed seems not to conform to theoretical expectation. The corporate governance code posits that entities should be mindful of their scale of operation, complexities among other factors when deciding the board size. It is believed that an optimum board size will improve organisation bottom lines. However, the unexpected result in this case may not be unlikely. A large board size of approximately ten (10) members as revealed in the result could lacks coordination and ability to make precise germane decisions. Again, the effectiveness of each of these members in terms of deliberations on business matters could be another issue. Also, the enforcement of the provisions of corporate governance codes is not stringent in non-financial sectors when compared to the financial sectors. The finding is consistent with studies who found significant

impact between board size and financial performance (Ademola et al., 2016; Akinleye et al., 2019; Dabor et al., 2015; Urhoghide & Korolo, 2017).

Board independence appeared to have a significant positive impact on financial performance ***the study upheld the alternate hypothesis of a significant impact between board independence and financial performance.*** Board size being positively signed conforms to theoretical expectation. The corporate governance code posits that entities should have more of independent non-executive directors which is believed will enhance proper monitoring of CEOs, thereby improving organization bottom line. The finding is consistent with the studies that found positive relationship between board independence and financial performance (Akingunola et al., 2018; Dabor et al., 2015; Eniololo et al., 2019).

Audit committee size appeared to have a positive insignificant impact on financial performance ***the study upheld the null hypothesis of a non-significant impact between audit committee size and financial performance.*** Audit committee size being positively signed conforms to theoretical expectation. The finding is consistent with the studies that found positive relationship between board independence and financial performance (Ademola et al., 2016; Eniololo et al., 2019; Iheyen, 2021; Okolie & Ogbaragu, 2022; Otemu & Otemu, 2021)

Audit committee independence appeared to have an inverse insignificant impact on financial performance. ***The study upheld the null hypothesis of a non-significant impact between audit committee independence and financial performance.*** Audit committee size being positively signed conforms to theoretical expectation. The finding is consistent with prior studies who found inverse relationship between audit committee independence and financial performance (Al-Jalahma, 2022; Edheku & Akpoveta, 2020; Elbahar et al., 2021; Eni-Egwu et al., 2022).

## 5. Conclusion and recommendations

The study investigates corporate governance and financial performance of listed consumer and industrial goods companies listed in the NGX. The inconsistency in the findings of prior empirical studies shows an indication that issues surrounding corporate governance and financial performance is far from being settled at least empirically. Utilizing the longitudinal research design, the result from the panel estimation technique showed that board size exhibits inverse significant impact with financial performance, however, does not conform to theoretical expectation. Board independence exhibits a positive significant with financial performance and it conforms to theoretical expectation. Audit committee size exhibits a positive insignificant impact with financial performance, with caution being exercised because it failed the significant test. Audit committee independence exhibits inverse insignificant impact with financial performance. Considering that about half of the explanatory variables used in the study showed positive signs, one can safely conclude that board and audit committee attributes has the potential to determine an organisation bottom line such as financial performance. The following recommendations: (i) that the board of companies should be constituted, taking into consideration the complexities and scale of operations of each entities; (ii) the independence of the board should always be upheld and this can put the CEOs in check, thereby enhancing performance; (iii) the size of the audit committee should not be compromised as it affects its effectiveness and ultimately organization outcome ; and (iv) the independence of the audit committee must not be compromised if organisations wants to improve their bottom lines.

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## LIQUIDITY RISK AND FINANCIAL PERFORMANCE OF SELECTED DEPOSIT MONEY BANKS IN NIGERIA

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### ABSTRACT

This study examines the effect of liquidity risk management on the financial performance on listed deposit money banks in Nigeria. The scope of the study is limited to Deposit Money Banks in Nigeria covering a period of 17 years (2007-2022). This study uses secondary data and employs the ex-post factor research design. The sample populations of the study vary fundamental sampling techniques stood at 13 quoted deposit money banks in Nigeria then the census was used for the sample size. The data were analysed using ordinary least square econometric technique. The outcomes the research divulge that liquidity risk positively influenced financial performance of listed deposit money banks in Nigeria. This study recommended that the Central Bank of Nigeria should mandate adequate current asset to current ratio is maintained by Deposit Money Banks per time in order to stay afloat.

### INTRODUCTION

The main goal for any profit-making business, including the banking sector, is to maximize its returns through its business operations. Banks function in the financial and put strategies in place to enable them accomplish their aim of profit optimization and desired returns. They go in search of profitable ventures that can boost their revenue and thus upsurge their performance. Concurrently, they put risk reduction mechanism to diminish the likelihoods of failure in any of their undertakings that may hamper their performance. Though, banks search for viable investments to enhance profitability they similarly take proactive steps ensure risk is reduce to barest minimum in all their operations. Extant literature revealed various factors that influence the performance of firm. These factors include firm attributes, board characteristics, corporate governance, earning management and host of others Kumar & Yadav, 2013) The focus of researchers on the factors that influence performance of firms drifted after the financial crisis that sweep across the entire globe. It dawns on scholars that factors outside the locus of control of firms often than not threaten the existence of firms. Some of these factors (both exogenous and endogenous externalities) added up to the financial crises experienced the world over in pass two decades. Kumar and Yadav (2013) noted that in considering what led to the financial there is a need for scholars to ascertain the role played by both endogenous and exogenous factors.

Rahman et al. (2020) opine that the volatile nature of financial institutions makes them to be pruned to lots of external factors like inflation, fiscal policy, monetary policy and host of others. One of unfathomable factors that has taken the centre stage in our contemporary world is risk. Risk can be credit risk, liquidity risk, operational and market risk. Liquidity risk management began to receive much attention from accounting shortly after the financial crisis that hit the globe two decade ago. The existence of many banks was not guaranteed and some banks went under while several others were given bailout by government. Liquidity glitches were said to be one of the factors responsible for this lackluster performance.

Igan et al. (2013) argued that liquidity risk occurs majorly when short-term liabilities are funded from long-term assets. On the contrary Trujillo-Ponce (2013) argued that liquidity risk can occur when there is an upsurge in interest rates. However, in the past few years, liquidity risk is similarly perceived as a crucial dynamic that influences a bank's profitability. Several studies have been done on the association between liquidity risk and financial performance of banks (Claeys & Vennet, 2008; Trujillo-Ponce, 2013). Much emphases have been placed on liquidity risk in last two decades in Nigeria after the shaking that took place in the banking sector that led to the liquidation of some notable banks in Nigeria. The second wave of the tsunamis was

witnessed few years ago when the apex bank had to take over some banks in order to safeguard depositors' funds. Lots of works have been done on the association liquidity risk with performance of banks in Nigeria.

The objective of this is to find out the effect of liquidity on performance of banks in Nigeria

## **2.0 LITERATURE REVIEW**

### **Conceptual Framework**

#### **Firm Performance**

In the 1950s, firm performance was perceived to be the same thing as firm proficiency, which stand for the level to which a firm, as a social construct with scarce resources and capitals, accomplishes its set objectives without its employees exerting too much effort. The measures employed for evaluating performance were output, tractability, and inter-organizational tautness (Georgopoulos & Tannenbaum, 1957). Later in the 60s and 70s, firms began to explore new ways to evaluate their performance. During this period, performance was described as a firm's capacity to exploit its surroundings in order to access and utilize its scarce resources (Yuchtman & Seashore, 1967)

In the first decade of the twenty-first century, the description of the term firm performance predominantly centered on the aptitude and capacity of a firm to resourcefully annex the existing resources to accomplish achievements that are in line with the aims of the firm, as well as bearing in mind their significance to its stakeholders (Peterson, et al, 2003)

Measuring firm performance using financial analysis has been a conventional apparatus used by venture capitalist, decision-makers, suppliers, and other interest groups to assess the firm because lots of scholars and professionals view profitability to be the same thing with financial performance (Delen, et al, 2013). In practice the term performance culminates the fundamental component of strategic management. A lot of work on strategic management employed the term in the course of examining numerous strategic and procedural matters. Several works employed individual measurements (accounting-based or market-based measurements). Though there are broadly used quantifications of performance with numerous of them interrelated to diverse discipline. The countless number of ways has been brought forward to measure financial performance and among these measurements are: Return on Assets (ROA), Return on Equity (ROE), Tobin-Q, Profit Margin (PM), Yield (DY), Price-Earnings Ratio (PE), Return on Sales (ROS), Expense to Assets (ETA), Cash to Assets (CTA), Sales to Assets (STS), Expenses to Sale (ETS), Abnormal returns; annual stock return, Operating Cash Flow (OCF), Return on Capital Employed (ROCE), Labor productivity (LP), Critical business Return on Asset (CROA), Cost of Capital (COC), Market Value Added (MVA), Operation Profit (OP), Return on Investment (ROI), Market-to-book value (MTBV), Log of market capitalization, LOSS, Growth in Sales (GRO), Stock Repurchases, Sales Per Employee (SPE), Return on revenue (ROR), Output per staff (OPS), Cost Per Service Provided (CPSP) and Cost per Client Served (CCS), Superior to cumulative abnormal returns (CARs), Profit Per Employee (PPE) and Return on Fixed Assets (ROFA). Accounting-based measurement is generally considered as an effective indicator of the company's profitability and the business when compared to benchmark rate of return equal to the risk adjusted weighted average cost of capital.

### **Risk Management**

Risk is defined as a phenomenon that an entity will suffer actual and direct losses via diminishing income streams and capital losses. A group of economists has proposed a broader definition of risk: risk is defined as the occurrence of any event or events that has the propensity to disrupt the organization's ability to accomplish its objectives by applying and restricting the capacity and activities of the organization.

Risk proponents have defined risk in many ways; for example, Hansel (1999) defines risk as the possibility of loss and the probability of casualty. Nwite (2015) defines risk as the possibility of inaccuracy, or the likelihood of an event occurring or not. Loss is something that these two definitions have in common. Risk is defined in this study in terms of financial loss. Risk, according to Salaudeen, et al, (2021), includes unpredictability, adverse deviation, uncertainty, and the probability of a negative occurrence, all of which are linked to economic losses.

According to Erhabor and Eiya (2020), risks are the obstacles that banks encounter while extending credit to the economy, and they are typically used to characterize the losses of numerous

Bank for International Settlements (BIS, 2008) sees liquidity as the capability of bank to fund upsurges in assets and stand up to obligations as they come due, not suffering undesirable losses. Liquidity risk occurs from the ultimate role of financial institution in the maturity conversion of short-term deposits into long-term credits. Bessis (2009) see liquidity as the state or condition of a firm which regulates its ability to accept or acquittal its maturing duties. These maturing obligations comprise of current liabilities and long-term debt. IMF (2008) defines the bank liquidity as the aptitude of in the money outfit to go into make agreed upon disbursements in an opportune manner.

Liquidity is the capacity of a firm to uphold all financial commitments without imperiling its financial state. Liquidity will assist a firm to sidestep a condition where a firm voluntarily liquidate due to its attendant glitches of selling assets at liquidating prices and the additional dues are paid to lawyers, trustees in bankruptcy and liquidators on liquidation. The meaning given above indicate that, as liquidity upsurges, the likelihood of technical bankruptcy diminishes. Aforementioned explicitly magnify the opinions by identifying two dimensions of liquidity namely the time essential to transform an asset into liquid cash and the magnitude of uncertainty tied to the conversion ratio or price realized for the assets include liquidity risk.

The term liquidity risk comprises two kinds of risk: funding liquidity risk and market liquidity risk. Funding liquidity risk is the risk that the financial institution will not be able to uphold competently both predictable and unpredictable present and forthcoming cash flow and indemnity requirements without upsetting either daily processes or the financial situation of the firm. Market liquidity risk is the risk that a financial will be able counterbalance or eradicate a situation at the market price due to insufficient market penetration or market interference. Aspachs et al. (2005) document that there are some devices that banks can employ to indemnify against liquidity predicaments include: first, banks clamp bumper of liquefent assets on the asset side of the statement of financial position. An outsized sufficient cushion of assets such as cash, balances with central banks and other banks, debt securities issued by governments and similar securities repo trades decrease the likelihood that liquidity stresses threaten the sustainability of the bank. Second, banks can depend on the interbank market where they appropriate from other institutions in case of liquidness demand. Nevertheless, this stratagem is toughly related to market liquidity risk.

Bessis (2009) reports that liquidity risk can be quantified by two main methods: liquidity gap and liquidity ratios. The liquidity gap is the assets minus liabilities at both current and forthcoming dates. At any time, an affirmative gap between assets and liabilities is comparable to a deficit. Liquidity ratios are numerous statements of financial position ratios which should recognize main liquidness trends. These ratios reflect the datum that financial institution should be indubitable that appropriate, low-cost money is accessible in a short time. This might include holding a portfolio of assets than can be easily sold (cash reserves, minimum obligatory reserves or government securities), holding momentous dimensions of unwavering liabilities (particularly deposits from retail depositors) or continuing credit lines with other financial institutions. Numerous authors like Moore (2010), Praet and Herzberg (2008) or Rychtárik (2009) provide various liquidity ratios

L1= total assets liquid/assets total ..... (1)  
 L2=liquid assets/deposit+borrowing ..... (2)

| 3=loans/total assets (3)

term.....(4).

## Theoretical Conceptual Framework

### The Risk-Return Trade-off Hypothesis

Several background theories have tried to analyze how liquidity risk affects the performance of banks. According to the hypothesis of corporate finance (Miller & Bromiley, 1990), a bank in equilibrium would prefer to maintain an optimal level of liquidity solely to offset its costs and benefits at the marginal level.

Flannery and Rangan (2008) claim that indeed if banks succeed in maintaining optimal liquidity, there will be no such short-term relationship. However, in the long term, the regulatory liquidity requirements are binding. High liquidity reduces profitability if banks exceed their optimal levels of liquidity, e.g. due to regulatory requirements or unexpected shocks (Flannery & Rangan, 2008). Osborne et al. (2012) suggested that the optimal liquidity of banks increased during the crisis in the banking industry because, under such conditions, bankruptcy costs will increase. Therefore, it is expected that the relationship between liquidity and profitability in the banks will be cyclical. This is because, in extreme environments, banks tend to reserve a lower level of liquidity than the optimal level. However, under normal conditions, banks may or may not reach their optimal level of liquidity. In that case, the relationship would be close to zero or vice versa. This implies that bank performance can be improved by reducing liquidity (Osborne et al., 2012). The reduction in the structure of liquidity assets increases the liquidity risk. The hypothesis states that as risk increases, profitability increases accordingly, and there is a positive correlation between risk and profit.

### Liquidity Risk Management and Performance

Irani, et al, (2014) carried out a study to investigate the influence of liquidity risk management on the financial performance of banks in Malaysia. The outcome of the research work revealed that bank liquidity risk management has no emblematic impact on the profitability of financial institutions. The outcome divulged that liquidity risk has no emblematic impact on the financial performance of banks.

Yahaya et al (2015) carried out research to ascertain the influence of liquidity risk management on the financial performance of Nigerian banks. The outcome of the study revealed that liquidity risk management has a positive impact profitability of financial institutions in Nigeria. Farooq et al (2015) carried out a study to ascertain the influence of liquidity risk on profitability of financial performance banking institutions in Pakistan. The research employed a multivariate regression technique to analyze data extracted from the field. The outcome of the research divulged that liquidity risk has a negative impact on the financial performance of banks in Pakistan

Olalekan (2018) examined the influence of liquidity risk on the profitability of quoted non-banking institutions in Nigeria for the duration of five, 2011-2015. The study employed a multivariate regression technique to analyze data gathered from the field. The outcomes of the research divulged that leverage negatively influences performance. The study also revealed that the loan loss ratio has no significant impact on profitability whereas premium growth has no emblematic impact on the profitability of the non-banking institutions used for the research.

Bhattarai (2019) investigates the effect of liquidity risk on the profitability of deposit money banks in Nepal. The study used panel data from ten DMBs for the period of six years, 2001-2016. The study employed OLS statistical technique to analyze data gathered from the field. The outcomes of the research divulged that capital adequacy ratio (CAR), non-performing loan ratio (NPLR), and management quality ratio (MQR) have an emblematic association with the profitability of DMBs in Nepal.

Effiong and Enya (2020) carried out a study to ascertain the effect of liquidity risk management on the profitability Nigerian consumer goods firms using a multivariate regression technique. The outcome of the research divulged that liquidity risk management has an emblematic influence on the profitability of the Nigerian customer goods sectors.

Khan, et al (2020) performed research work to ascertain the connection of liquidity risk to firm financial performance in the Pakistani financial sector employing OLS statistical techniques. The outcome of the research divulged that liquidity risk management has no emblematic

influence on the profitability of banks in Pakistani financial sector.

Hacini, et al, (2021) carried out research work to ascertain the association of liquidity risk with the profitability of chosen conservative Saudi Arabian financial institutions for eight years employing the OLS technique. The outcome of the research revealed that liquidity risk is negatively associated with the profitability of Saudi Arabian banks.

Wajid et al (2021) carried out a study to ascertain the influence of liquidity risk on the financial profitability of DMBs in Pakistan. The study used the OLS regression technique to ascertain the association of financial performance with liquidity risk management of commercial banks in Pakistan during a period from fourteen, 2006- 2019. The outcome of the research revealed liquidity risk negatively influences bank financial performance.

Alqemzi et al (2022) carried out a study in UAE to ascertain the influence of liquidity on firm performance employing the Ordinary Least Square (OLS) statistical technique. They showed that liquidity risk positively influences the profitability of banks in UAE.

Sharma (2022) carried out research work to ascertain the influence of liquidity risk on the profitability of DMBs in India. Auto-Regressive Distributed Lag (ARDL) regression. The outcome of the research work revealed liquidity has no significant impact on the financial performance of banks in India.

### 3.0 METHODOLOGY

## Population, Sampling and Sampling Techniques

The population consists of the thirteen (13) deposit money banks in Nigeria as listed in Nigeria Exchange Group as at the 31<sup>st</sup> December 2022. This used census sampling technique to determine the sample size (13). This study used secondary data extracted from the financial statement of selected firms.

## Model Specification and Data Analysis Method

The ordinary least squares regression technique was employed to analyze data gathered from the field. Multivariate regression technique was employed using panel data. The use of panel data in this study will be based on three fundamental justifications. First, the data collected had time and cross sectional attributes and this will enable us to study firms over time (time series) as well as across the sampled quoted companies (cross-section).

Second, panel data regression provided better results since it increases sample size and reduces the problem of degree of freedom.

Third, the use of panel regression would avoid the problem of multicollinearity, aggregation bias and endogeneity problems (Solomon *et al.*, 2012). However, the pooled data analysis neglects the heterogeneity effects in the sampled companies. Against this backdrop, the panel data will be preferred as it allowed for analysis and consideration of the cross-sectional and time-series characteristics of the sampled companies. Consequently, the fixed effect and random effect will also conducted in the panel regressions for the models. The fixed panel regression model assumes that there is a correlation between the independent variables in each model and their panel error terms. The random panel regression model assumes that there is no correlation between the independent variables in each model and their panel error terms.

The model specified will be subjected to the necessary statistical tests such as collinearity, normality, homoscedasticity, autocorrelation and linearity.

In accordance with the theory and empirical studies, the independent and dependent variables of the study will be identified in order to examine the influence of risk management on financial performance. This study will adopt the model of Aruwa and Musa (2014) because the model captured prudential guideline and bank profitability. The model is written as:

$$FP = \alpha + \beta_1 LR_{it} + \beta_2 LPP_{it} + \beta_3 NPL_{it} + \epsilon \quad \dots \dots \dots \quad (1)$$

FP = Firm performance

NPL = Non-performing

NP = Non-performing  
LLP = Loan Loss Provision.

LR = Liquidity risk

ER = Liquidity  
q = Constant.

$\alpha$  Constant  
 $\varepsilon$  Error term

## Presentation of Results

### Descriptive Statistics

#### Descriptive Statistics Results

	Mean	Median	max	Min	Stv.dev	JB	Prob	Kurtosis
ROA	0.0189	0.01411	0.28336	-0.53125	0.05348	27652.61	0.0000	58.770
LRM	0.5341	0.52428	0.96605	0.003530	0.22421	6.67302	0.0355	2.9355
LLP	0.3173	0.30187	0.95981	0.317510	0.23155	3.24841	0.0197	2.9109
NPL	0.0686	0.02380	0.88171	0.000130	0.126876	2207.37	0.0000	17.292

Researcher's computation (2024)

The result further revealed ROA has a mean value of 0.0189 while it has maximum and minimum values of 0.28336 and -0.53125 respectively. The standard deviation reported a relatively small values of 0.0534, implies that there is dispersion away from the mean. Since the mean ( $0.018 > 0.014$ ) is greater than the median, it indicates that ROA is skewed to the right. The coefficient value of kurtosis,  $58.770 > 3$  implies a fat tails and a leptokurtic distribution. The Jacque-Bera value of 27652.6 and the associated p-value of 0.000 indicate that the data is normal ( $p>0$ ) and that outliers or selection bias that the generalization from the study are unlikely.

Liquidity Risk Management (LRM) has a mean value of 0.5341 while it has maximum and minimum values of 0.96605 and 0.00353 respectively. The standard deviation reported relatively small value 0.22421 meaning that LRM is clustered around the mean. Since the mean is relatively greater than the median ( $0.5341 > 0.5242$ ), it implies that the variable is slightly skewed to the right. The kurtosis is a measurement of the ends of a distribution and is used to dictate the size of the tails of a data distribution. The coefficient value of kurtosis of  $2.9355 < 3$  implies a flat tails and LRM is a platykurtic distribution. The Jacque-Bera value of 6.67302 and the associated p-value of 0.0355 indicate that the data is normally distributed ( $p>0$ ) and that outliers or selection bias that the generalization from the study are unlikely.

Loan loss provision (LLP) has a mean value of 0.3173 while it has maximum and minimum values of 0.95981 and 0.317510 respectively. The standard deviation reported relatively small values 0.2315 shows that ORM is cluster around the mean. The mean 0.3173 is greater than the median value of 0.3018. This implies that ORM is slightly skewed to the right. The kurtosis is a measurement of the ends of a distribution and it is used to dictate the size of the tails of the data distribution. The coefficient value of kurtosis of  $2.9109 < 3$  implies a flat tails and ORM is a platykurtic distributions. The Jacque-Bera value of 3.24841 and the associated p-value of 0.0197 indicate that the data is normally distributed ( $p>0$ ) and that outliers or selection bias that the generalization from the study are unlikely.

Finally, the result revealed that the non-performing loan (NPL) has a mean value of 0.0686 while it has maximum and minimum values of 0.8817 and 0.00013 respectively. The standard deviation reported relatively small values 0.12687 shows that there is dispersion away from the mean. The mean value of 0.0686 relatively greater than the median (0. 0.0238) which indicates that it slightly skewed to the right. Kurtosis value of  $17.292 > 3$  implies a fat tails and a leptokurtic distributions. . The Jarque-Bera value of 2207.37 and p-values (0.00) implies that the variable is normally distributed.

#### 4.2.1 Pearson Correlation

**Table 4.2: Pearson Correlation Results**

	ROA	LRM	LLP	NPL
ROA	1.000000			
	-----			
	-----			
LRM	-0.005842	1.000000		
	-0.083235	-----		
	0.9337	-----		
LLP	0.019739	-0.047944	1.000000	
	0.281286	-0.683890	-----	
	0.7788	0.4948	-----	
NPL	0.007960	-0.183911	-0.003009	1.000000
	0.113419	-2.665793	-0.042865	-----
	0.9098	0.0083	0.9659	-----

Source: Researcher's computation (2024)

Table 4.2 presents the Pearson correlation coefficient results for the variables. It was observed that Return on Assets (ROA) appears to be negatively correlated with Liquidity Risk Management as depicted by the correlation coefficient (-0.005842). It implies that LRM and ROA move in the dissimilar directions. LLP exhibit a positive association with ROA as depicted by correlation coefficient (0.019736). It was also observed that NPL has positive association with ROA as depicted with correlation coefficient (0.0079).

The result further revealed that LRM has a negative association with LLP as depicted by coefficient of (-0.0479). It implies that LRM and LLP move in dissimilar direction. NPL showed negative association with Liquidity risk management as depicted by correlation coefficient (-0.183911). This relationship is significant at 5%. It was further observed that LLP is negatively correlated with NPL as depicted by the correlation coefficient (-0.00300).

The correlation coefficient results showed that none of the independent variables is very strongly correlated and this indicates that the problem of multicollinearity is unlikely and hence the variables are suitable for conducting regression analysis.

#### Regression Diagnostic Test

**Table 4.3 Regression Assumptions Test**

Multicollinearity test		
Model 1		
Variable	Coefficient Variance	Centred VIF
C	2.044951	NA
LRM	1.651721	1.03753
LLP	in 1.016085	1.00244
NPL	1.294685	1.03515
Heteroskedasticity Test: ARCH		
F-statistic = 3.1112	Prob. F(3,201)	0.7741
Breusch-Godfrey Serial Correlation LM Test:		
F-statistic = 156.54	Prob. Prob. F(2,199)	0.255
Ramsey model test		
F-statistic = 1.75075	Prob. F(1, 200)	0.1873

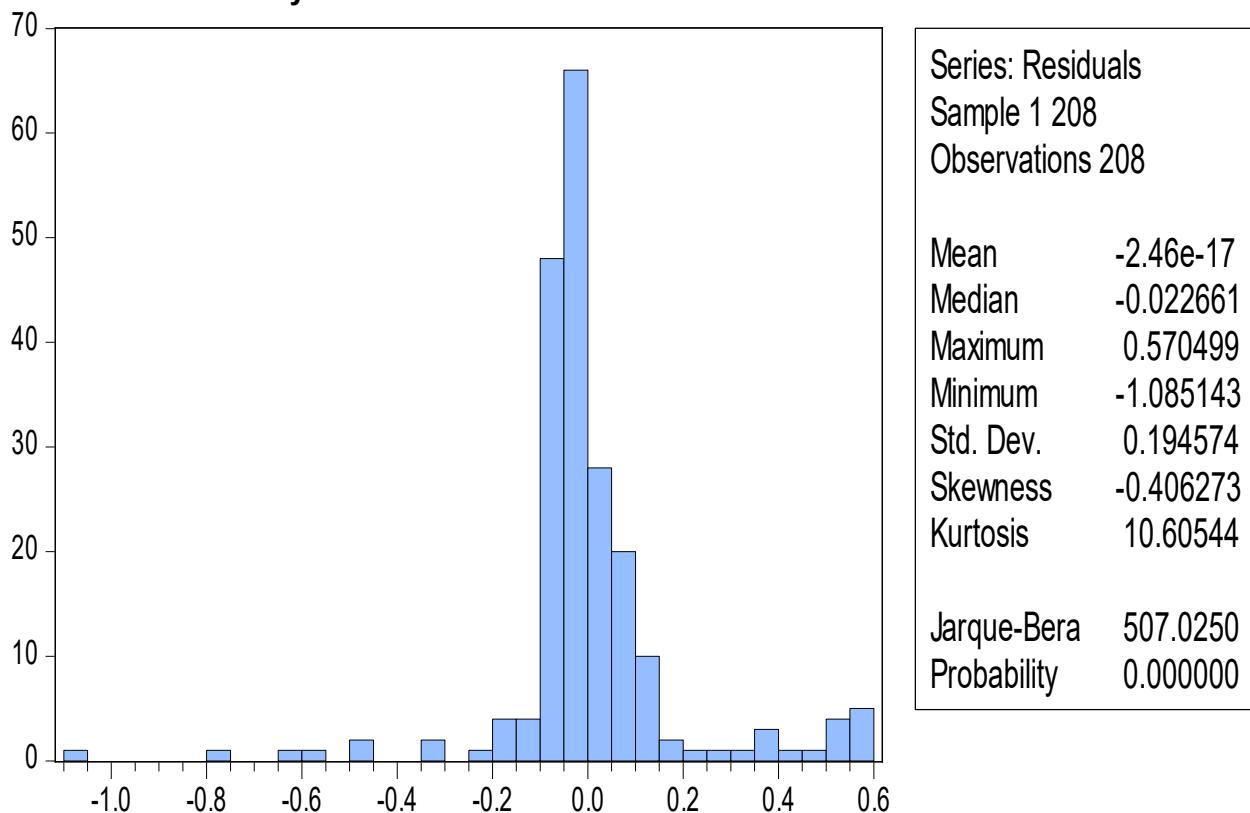
Source: Researcher's Computation (2023)

To further strengthen the result of the absence multicollinearity, we carried out a residual diagnostic test of variance inflation factor. From table 4.3, it is observed that the variance inflation factor (VIF) which measures the level of collinearity between the variables show how much of the variance of a variable most likely the coefficient estimate of a regressor has been

inflated due to collinearity with the other variables or likely regressors. They can be calculated by simply dividing variance of a coefficient estimated by the variance of that coefficient had other regressors not been included in the equation. The VIFs are inversely related to the tolerance with larger values indicating involvement in more severe relationships. Basically, VIFs above 10 are seen as a cause of concern (Landau & Everit, 2003). All variables reported a VIF of less than 10. Inclusion, the VIFs of the variables are all less than 10 indicating the unlikelihood of multicollinearity amongst the variables and hence the variables satisfy a very important condition the multivariate regression analysis.

The ARCH test for heteroskedasticity was performed on the residuals as a precaution. The results showed probabilities in excess of 0.05 which led us to reject the presence of heteroskedasticity in the residuals. The Lagrange Multiplier (LM) test for higher order autocorrelation reveals that the hypotheses of zero autocorrelation in the residuals were not rejected. This was because the probabilities (Prob. F, Prob. Chi-Square) were greater than 0.05. The LM test did not, therefore, reveal serial correlation problems for the model. The performance of the Ramsey RESET test showed high probability values that were greater than 0.05, meaning that there was no significant evidence of miss-specification.

**Table 4.5a: Normality test Model I**



Source: Researcher's computation (2023)

The histogram of the normality test further strengthened the Jarque–Bera statistics reported in table1. The normality test result signifies a bell–shape histogram with mean Jarque-Bera value of 507.02 and associated probability value of 0.000000 which signifies normal distribution of the regression variables for model I

#### 4.2.4 Regression Results

The regression analysis was conducted to show the effects of the predictors on performance. The estimations were conducted across several specifications. The study provided more robust estimations by using EGLS to analyze data below:

**Table 4.6: Performance and Liquidity Risk Management**

Variable	Model
C	0.0188 (14.582) {0.000}
LRM	7.9600 (0.0007) {0.999}
LLP	**0.0220 (4.7810) {0.000}
NPL	**-0.0146 ( -1.8797) {0.0616}
<i>R</i> <sup>2</sup>	0.125
ADJ <i>R</i> <sup>2</sup>	0.1120
F-Stat	9.5825
P(f-stat)	0.000
D.W	1.8616

**Source:** Researcher's Compilation (2024) using E-view 7.0

\*\* sig @ 5%, ()= t-stat, {}= prob C=ROA

The table 6 displays the effect of risk management on ROA. The result revealed that liquidity risk management has a positive effect on ROA as depicted by t=0.0007 and =0.999. This relationship is not significant at 5% since p=0.999>0.05.

The result further revealed that loan loss provision has positive effect on financial performance (ROA) in the Nigerian deposit money banks. This effect is significant at 5%, since t=4.7810 and p=0.000. This result implies that a unit increase in operational will lead to 2% increase in return on asset.

Additionally, the result regression result displayed in table 4.6 revealed that non-performing has a negative effect on financial performance (ROA) of the Nigerian deposit money banks as depicted by since t= -1.879 and p= 0.061. This effect is not significant at 5% since t= -1.879 and p= 0.061.

Finally, in evaluating the performance of the model which relates ROA and risk management it was observed that, the *R*<sup>2</sup> stood at 0.125 indicating that the explanatory explained about 12% of variations in the dependent variable. The F-stat (9.582) and Prob-stat= 0.000 show that the model is fit at 5% and the hypothesis of a linear relationship cannot be rejected at 5%. The D.W. stat of 1.8616 suggest that stochastic dependence is unlikely between successive units of the error term.

### Discussion of Findings

For every endeavor that involves the mortal being there is risk. Financial institutions are piloted by human beings and therefore incur challenges for a multitude of reasons, some of the major causes of such problems continues to be directly related to low credit standards for borrowers coupled poor portfolio risk management and paying inadequate attention to fluctuations in economic realities. Banks use customers deposit to produce credit for their customers, which in fact is an income producing channel for banks. This credit formation process open up banks to unimaginable loan overdue which might render the bank illiquid and further lead to insolvency. Financial institutions are doubt the most regulated sector in any economy because of the delicate nature of their operation

This study used a sample size of 13 banks to ascertain the effect of risk management on the financial performance of listed deposit money banks in Nigeria.

The result shows that liquidity has positive effect on profitability of money deposit banks. This implies that higher risk management leads to higher profitability. This is result in line with a *priori* expectation and also aligns with Idowu and Olausi, (2012) found that profitability of Nigerian banks is positively influenced by Liquidity. This result is also in line with the result Nwude and Okeke which reveal that liquidity risk has positive effect on financial performance of

DMBs in Nigeria. This result is at variance with Muriithi (2016) which showed that liquidity risk has a negative and significant relationship with performance of bank.

The result further reveals that loan has positive effect on performance of money deposit banks in Nigeria. Finally, the result shows that non-performing has no significant effect on performance of money deposit banks in Nigeria.

### **Recommendation**

This study recommended that the most conservative regulatory capital rules can be circumvented if there are shortcomings in the loan loss provisioning process. This study also recommends that the apex bank should ensure deposit money banks maintain adequate credit asset/ current liability ratio per time in order to safeguard depositors funds.

### **Suggestion for further Studies**

This study suggests to researchers who intend to veer into this viable area to expand the scope of their study, to and should look at market risk and firm performance in nonbanking financial sector.

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## Appendix 1

	ROA	LRM	LLP	NPL
Mean	0.018927	0.534153	0.317372	0.068663
Median	0.014119	0.524280	0.301879	0.023802
Maximum	0.283361	0.966059	0.959819	0.881710
Minimum	-0.531250	0.003530	-0.317510	0.000130
Std. Dev.	0.053480	0.224214	0.231554	0.126876
Skewness	-4.480648	-0.437554	0.302857	3.549988
Kurtosis	58.77079	2.935585	2.910957	17.29293
Jarque-Bera	27652.61	6.673021	3.248413	2207.378
Probability	0.000000	0.035561	0.019706	0.000000
Sum	3.936893	111.1037	66.01341	14.28195
Sum Sq. Dev.	0.592044	10.40630	11.09875	3.332189



Observations	206	206	206	206
--------------	-----	-----	-----	-----

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	157.0208	Prob. F(2,199)	0.0600
Obs*R-squared	125.4840	Prob. Chi-Square(2)	0.0600

## Appendix 3

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.365586	Prob. F(3,201)	0.7779
Obs*R-squared	1.112514	Prob. Chi-Square(3)	0.7741
Scaled explained SS	34.27967	Prob. Chi-Square(3)	0.0000

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 03/08/23 Time: 11:41

Sample: 1 208

Included observations: 206

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	411.5538	215.9697	1.905609	0.0581
LRM	-97.80713	174.9195	-0.559155	0.5767
LLP	-4.510227	19.26594	-0.234104	0.8151
NPL	-1038.342	1093.089	-0.949916	0.3433
R-squared	0.005427	Mean dependent var	268.1592	
Adjusted R-squared	-0.009417	S.D. dependent var	2152.250	
S.E. of regression	2162.361	Akaike info criterion	18.21511	
Sum squared resid	9.40E+08	Schwarz criterion	18.27995	
Log likelihood	-1863.049	Hannan-Quinn criter.	18.24133	
F-statistic	0.365586	Durbin-Watson stat	0.616868	
Prob(F-statistic)	0.777921			

## Appendix 4

Variance Inflation Factors

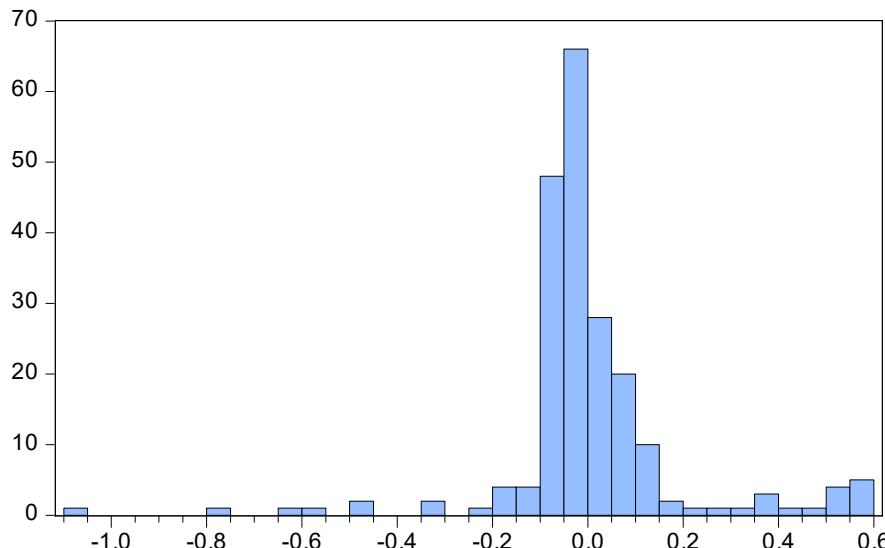
Date: 03/08/23 Time: 11:41

Sample: 1 208

Included observations: 206

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	2.728221	2.044951	NA
LRM	1.789659	1.651721	1.037533
LLP	0.021711	1.016085	1.002449
NPL	69.88838	1.294685	1.035157

## Appendix 5



Series: Residuals	
Sample 1	208
Observations	208
Mean	-2.46e-17
Median	-0.022661
Maximum	0.570499
Minimum	-1.085143
Std. Dev.	0.194574
Skewness	-0.406273
Kurtosis	10.60544
Jarque-Bera	507.0250
Probability	0.000000

## Appendix 6

Ramsey RESET Test

Equation: UNTITLED

Specification: ROA C LRM LLP NPL

Omitted Variables: Squares of fitted values

	Value	df	Probability
t-statistic	2.312136	200	0.0218
F-statistic	5.345975	(1, 200)	0.0218
Likelihood ratio	5.407669	1	0.0200

F-test summary:

	Sum of Sq.	df	Mean Squares
Test SSR	0.014947	1	0.014947
Restricted SSR	0.574126	201	0.002856
Unrestricted SSR	0.559180	200	0.002796

LR test summary:

	Value	df
Restricted LogL	311.6039	201
Unrestricted LogL	314.3078	200

## Appendix 7

Dependent Variable: ROA

Method: Panel EGLS (Period SUR)

Date: 03/08/23 Time: 12:23

Sample: 2007 2022

Periods included: 16

Cross-sections included: 13

Total panel (unbalanced) observations: 206

Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.018827	0.001291	14.58270	0.0000
LRM	7.96E-07	0.001002	0.000795	0.9994
LLP	0.000226	4.73E-05	4.781880	0.0000
NPL	-0.014630	0.007783	-1.879723	0.0616

## Weighted Statistics

R-squared	0.125128	Mean dependent var	0.877646
Adjusted R-squared	0.112070	S.D. dependent var	1.425742
S.E. of regression	0.975518	Sum squared resid	191.2788
F-statistic	9.582599	Durbin-Watson stat	1.861657
Prob(F-statistic)	0.000006		

## Unweighted Statistics

R-squared	-0.002004	Mean dependent var	0.018441
Sum squared resid	0.575545	Durbin-Watson stat	1.356770

## Appendix 8

Covariance Analysis: Ordinary

Date: 03/08/23 Time: 12:25

Sample: 2007 2022

Included observations: 206

Balanced sample (listwise missing value deletion)

Correlation	ROA	LRM	ORM	CRM
t-Statistic				
Probability				
ROA	1.000000 ---- ----			
LRM	-0.005842 -0.083235 0.9337	1.000000 ---- ----		
LPP	0.019739 0.281286 0.7788	-0.047944 -0.683890 0.4948	1.000000 ---- ----	
NPL	0.007960 0.113419 0.9098	-0.183911 -2.665793 0.0083	-0.003009 -0.042865 0.9659	1.000000 ---- ----

# INSTITUTIONAL OWNERSHIP STRUCTURE AND CHARACTERISTIC INFLUENCE ON AUDIT QUALITY OF NIGERIAN QUOTED MANUFACTURING COMPANIES

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## ABSTRACT

The debate on whether outside monitoring tools such as institutional shareholders have imperative roles to play in engendering effective corporate governance practice in corporate entities is still ongoing. This study examined the impact of institutional ownership on audit quality. Secondary data used were analyzed using the sample size of 36 manufacturing firms listed on the Nigerian Stock Exchange from 2007 to 2017. Experimental research design was applied while multiple regressions were used for analysis. The study found that the coefficient of determination ( $R^2$ ) value of 0.164 means that the explanatory variables were responsible for 16.4% changes in auditors' tenure. Institutional ownership has a negative and insignificant impact on auditors' tenure ( $\beta = -0.339$ ;  $p$ -value = 0.304). It is therefore concluded that institutional ownership has no significant influence on audit quality as measured by auditors' tenure. The non-significance result of this study may be as a result of the peculiarity of Nigerian corporate ownership structure which is different from other developed and developing nations. Hence, the postulation of institutional ownership structure influencing audit quality may not always be valid. It is recommended that future research should focus on other measures of audit quality such as audit fees, audit size and audit committee independence; as these may reveal more convincing results.

**Keywords:** Auditors' tenure, Audit quality, Institutional ownership, Manufacturing companies, Ownership structure

## 1. Introduction

Corporate governance has become a contemporary topic as a result of its enormous influence on the economic national growth and development. The non-existence of acceptable and workable governance structure in corporate settings has been described as a foremost reason of failure of many once healthy companies. Ownership structure is of major importance in corporate governance debate because it determines the commitments of managers and thereby the economic efficiency of the corporations they manage (Abdullah, 2008). The decay at developmental level in evolving economies is credited to the squat level of good corporate governance practices in the corporate environments of such countries. Subsequently, World Bank and other scholars have identified those countries as having insufficient capability to efficiently manage their resources (Tornyeva & Wereko, 2012). Therefore, the prominence given to better corporate governance in the extant literature is as a result of the major cankerworm bedeviling developing nations such as Nigeria. Academic scholars in the field of finance and accounting have constantly researched into the causes of corporate failures in various developed and developing markets, specifically, the Enron and WorldCom in the United State of America. Similarly, the spate of corporate failures witnessed in Nigerian corporate environment since the early 1990s and 2000s explains the level of corporate governance decadence in the Nigerian business environment. Ownership structure as one of corporate governance mechanisms entails several motives for monitoring financial reporting and auditing activities. One of these motives is the fact that the audited financial statements are important

sources of information about the companies and investors have a potential impact on audit quality in analyzing accounting information and financial decisions, because, some decisions made in companies transfer wealth from the debt holders to the managers and shareholders (Deli and Gilan, 2000).

Specifically, institutional investors are interested in reliable and sophisticated mechanisms of investments, more than other groups (Gompers & Metrick, 2001). Engaging the services of expert auditors in companies for financial reporting encourages institutional investors to invest in the equity share capital of these companies with more confidence. Almutairi et al. (2009) showed that asymmetry information is lower in companies whose audits have been conducted by professional auditors. Similarly, Velury et al. (2003) in their study show that institutional investors are inclined to companies which have their accounts audited by professional auditors. This study is motivated by the seemingly unending level of corruption, mismanagement, finance mismatch, assets defalcation and the state of corporate governance abuses in Nigerian corporate sphere. This study examined the characteristic impact of institutional ownership structure on audit quality of the sampled manufacturing companies quoted on the Nigerian Stock Exchange.

### **1.1 Rationale and Development of the Hypothesis**

According to Hoseinbeglou et al. (2013) institutional ownership represents investment by some institutions which is typically higher than the individual investments. It is the percentage of the shareholding in a firm which is owned by core investing institutions while holding more than 5% of company's shares. Abdullahi (2008) opines that institutional investors can exert more influence than individual shareholders. The higher the institutional shareholding the lower the discretionary accruals and the greater the earnings quality and this may engender improved audit quality (Ibn Adam & Bala, 2015). The higher the level of institutional ownership in a company, the more the likelihood that such a company will engage a large audit firm. Han et al. (2008) found that an increase in institutional shares resulted in an overall upsurge in the quest for higher audit quality in China. The institutional shareholders are the key actors in the financial market settings (Najjar & Taylor, 2008).

Since there is an increase in privatization exercise in many countries and also growing spate of the influence of institutional shareholders in organizational setting, it can be said that institutional ownership plays a significant role in corporate governance systems and mechanisms. They are equally essential in the protection of firm shareholders' rights (Abdullah, 2008). Institutional shareholders are legal institutions who are able to acquire a substantial percentage of the company's shares. It is therefore hoped that the institutional ownership structure will provide appropriate motivation for monitoring management, which ultimately will curtail earnings smoothening and enhance quality audit process. It is against these backdrops that we hypothesize in a null form that:

$H_0$ : Institutional ownership structure does not have significant influence on audit quality of Nigerian quoted manufacturing companies.

## **2. Literature Review**

This section of the study comprises review of the extant literature relevant to the study. It is subdivided into conceptual review, theoretical framework and empirical review.

### **2.1 Conceptual Framework**

#### **2.1.1 Ownership Structure**

There are different terms for each type of business ownership. A sole proprietorship comprises an individual who owns the business and runs the affairs of the business alone. Akin to a sole proprietorship is a partnership form of business which can consist of two or more owners.

Conversely, company ownership may involve higher number of owners and when the firm becomes registered as a corporate entity, such a firm becomes a separate legal entity which can sue and be sued in the court of law (Hartman, 2017). As a distinct entity with a name, the company can take up many of the rights and responsibilities of private individuals. Firm ownership is quite different from other forms of ownership in numerous ways. Whereas other forms of business ventures go into extinction after the death of the owner, a corporate ownership structure permits the business to continue into unforeseeable future. Similarly, the structure also shields owners' liability; a law suit against the business does not cover owners personal responsible and as such gives protection over their personal assets. Corporate ownership structure permits a firm to invite the interested general public to subscribe in its shares through an initial public offering (IPO). However, it is not all those organizations that use ownership structure are publicly quoted entities rather a publicly listed company is that company that offers its shares to the public in an open market through a stock exchange. In this instance, firm ownership involves those investors who subscribe to share capital in the company. All these shareholders enjoy the ownership structure liability protection and such investors have liberty of becoming owners without exposure to higher risk than what they have invested in the company's shares. Some corporate entities never list their shares on the stock exchange rather they use corporate ownership as a form of protection over a rather small group of owners who maintain control over the business (Hartman, 2017).

Ownership structure according to (Abdullahi, 2008) refers to the distribution of equity or ownership rights in terms of votes and capital. Ownership structure plays an important role in corporate governance because the incentives of managers and the economic efficiency of the corporations they manage are easily determined. Since ownership structure is the source of power and control over corporate entities under conditions of market imperfections, agency cost problem essentially needs to be addressed in line with the firm's ownership structure to engender efficient financial performance. The challenge for shareholders in a publicly listed company with widely diverse shareholdings is how to check the excesses of dominating managers or the board (Al-Farooque, et al., 2007).

It is believed that one of the most important ways through which a firm maximizes its value is through well designed ownership structure of the firm's shares (Bai, et al., 2007). Corporate ownership can either be dispersed meaning that the majority of the shares of the firm is owned by a large number of diffused shareholders, or concentrated which means that a larger percentage of the shares concentrated in the hands of a few shareholders. The Ownership structures identified in the literature include the dominant/largest shareholders, concentrated ownership, insider (board or managerial) ownership, foreign ownership, institutional ownership, diffused ownership and government/state ownership.

### **Institutional Ownership Structure**

Institutional ownership as ownership structure of interest represents those pension funds, insurance companies and mutual funds that have control over large-concentrated shareholding positions. Because of their prominence in terms of ownership positions, institutional owners because of their large shareholding are a dominant governance mechanism. Ireland (2011), suggests that ownership by institutions have both the size and the motivation to discipline unproductive managers or executives which may influence a firm's strategic decision and general corporate performance significantly.

The study concluded that institutional shareholders are now becoming more proactive in their efforts towards influencing corporate strategic choices. This class of shareholders always concentrates on the chief executive officers performance and responsibility and supports the actions towards sanctioning and removing those that are found culpable. They continuously and directly concentrate on the exploit of executives by representative vote proposals that are projected towards giving shareholders additional rights to make decision, if they are convinced that board procedures have not been effective. In recent years, structure of corporate ownership has been progressively touted as one of the mechanisms of corporate governance.

Several studies on institutional investors' role in monitoring the activities of the executives have been conducted which show that such investors force company's management to concentrate on economic performance and avoid opportunistic tendencies (McConnell & Servaes, 1990). Two fundamental enticements of institutional shareholders include trust responsibility and access performance indicators of higher investment (Mitra, et al., 2007). However, prior researches submit that institutional shareholders do not have the same objectives and they don't have the same motivations on the accepted monitoring procedures by company [Del Guercio & Hawkins, 1999; Navissi & Naiker, 2006; Smith, 1996]. Regarding investment time, they are classified as short-term and long-term investors. Predicating on this backdrop, they impact short-term managerial behaviour, while they are proactively partaking in company's administration and restrict free will of management (Navissi & Naiker, 2006).

Mitra et al, (2007) and Chung et al. (2002) posit that institutional investors have a long-term perspective and lay much emphasis on long-term profits because purchases, sales and transfer of ownership of large company's shares are costly and may regularly require foreclosure incentives for sales. Also communication and transfer costs are usually high in the short run. They submitted that, long-term institutional investors are not motivated by short-term profit, but how their investments can reduce executive power of companies with strong motivation and good ability to manage profits for achieving profit goals. They therefore, have a monitoring role that curtails the possibility of earnings management and false indicators being perpetrated by the executives (Bushee, 1998). Conversely, there is a divergent view that most of institutional investors are temporary investors; as a result, they often consider current benefits, instead of long-term profits in stock exchanges and management of companies (Bushee, 1998).

### **2.1.2 Audit Quality**

In an attempt to define audit quality, researchers have considered multiple scopes, which have led to seemingly differing definitions. One of such definitions of audit quality is the one which is attributed to (De-Angelo, 1981). In the seminal study, he defined audit quality as "an assessment of the market on the likelihood that firstly, auditor detects important misstatement items in financial statements or accounting systems of stakeholder, and secondly, report the found important misstatement". The possibility of detecting any significant misrepresentation by an auditor hinges largely on his suitability and independence. De Angelo (1981) definition on real audit quality is grounded on perceptions of consumers or so-called market perception of audit quality. Similarly, Palmrose (1988) defined audit quality built on recognize level of auditor. Since the primary objective of auditing is aimed at achieving confidence in financial statements, quality of auditing therefore means absence of major misstatement in the audited financial statements. This definition lays premium on end results of auditing process; hence, credibility of the audited financial statements mirrors high quality of auditing.

Titman and Trueman (1986) also defined audit quality as correctness and credibility of the information presented to the investors after auditing. This definition of audit quality is similar to the one proposed by Palmrose (1988). Davidson and Neu (1993) defined audit quality as "auditor's ability to detect and discover material misstatements as well as detecting the reported manipulation in net income". However, Lam and Chang (1994) opined that audit quality services should be assessed discretely for each audit project instead of examining them together. An essential problem in defining audit quality is the difference between auditor quality and audit quality. Many studies have not really considered any distinction between the two terms and they are always considered as similar phenomena. In an attempt to differentiate the two terms; auditor quality is defined as overall quality of audit services in all audits of an auditing firm; while audit quality should be defined separately for each of audit projects because the audit firm may not run all of its auditing at the same quality level (Al-Ajmi, 2009). In other words, auditor quality is a concept based on qualitative audits of an auditor firm, while audit quality is based on concept of actual quality of each audit project.

### **2.2 Theoretical Review**

This section of the study provides the theoretical underpinning on which the study is anchored. The theories include agency theory, stewardship theory and private benefits hypothesis.

### 2.2.1 Stewardship Theory

Stewardship theory was propounded by Edward Freeman in 1984. The central notion of the stakeholder theory is that the company is seen as an assemblage of different stakeholders with the sole aim of management of the needs and interests. According to this theory, because of importance of the invested wealth, institutional investors are likely to manage their investments actively because they are the skilled investors who have a comparative advantage in collecting information. Fontaine and Stefan (2018) describe stakeholders as those individuals and groups who derive benefits from or are affected by the activities of a firm. This group of investors consists of stockholders, bondholders, financial institutions of the firm, creditors, the employees, customers and the host community. Institutional investors as a major stakeholder in an organization typically seek to provide accurate and timely information about company and question the company to provide accurate and correct future profits. They analyze the related data to shares' value, which has not been reflected, and include them in current stock prices (Nasrollahi & Arefmanesh, 2010). In general, by efficient monitoring, interests of shareholders will be maintained against abuse of management and reduce risk of small shareholders.

### 2.2.3 Private Benefits Hypothesis

Contrary to the stewardship theory put forward by Freeman (1984), there is private benefits hypothesis. Its proponents believe that institutional investors are more likely interested to access confidential information for commercial objectives. Access of institutional owners to confidential information will increase information asymmetry. In such a situation, institutional owners may be less inclined to encourage management to report high-quality profits. As a result, inadequate institutional oversight will increase institutional uncertainty in the future cash flows and stock risk associated with stock liquidity (Freeman, 1984).

## 2.3 Empirical Review

According to Mitra et al. (2002), institutions may have different abilities to monitor and influence corporate entity's management due to differences in the analytical and information processing resources at their disposal. In the same vein, McConnell and Servaes (1990) opined that the impact of their control on a company's intrinsic risk or the impact of quest for high quality of audit may cause discrepancy associations between the institutional investors and audit fees. Additionally, the institutional shareholders are better informed than individual shareholders as regards firm's financial position as a result of their large-scale analysis of timely and valuable firm-peculiar information. Furthermore, institutional investors are more vigorous to meet individual investors' responsibilities, resulting in a decline in agency costs. The effect of ownership structure on audit quality of companies listed on the Tehran Stock Exchange was examined by Pouraghajan et al. (2013). The authors employed regression analysis in the study. A positively significant relationship was documented between institutional ownership and audit quality. The impact of audit quality and ownership structure on companies listed on Tehran's Stock Exchange was conducted by Seyedeh et al. (2016), the study reported that institutional ownership has a negative but significant impact on earning management. However, the findings showed a positively significant impact of ownership structure on earning management.

Mitra et al. (2002) studied the relationship between ownership characteristics and audit fees among firms quoted on the New York stock exchange for a period of five years (2000 to 2005). The findings revealed a statistically positive and significant association between institutional ownership and audit fees. Similarly, Ashrafi et al. (2017), studied the relationship between institutional ownership and financial leverage and audit quality in companies listed on Tehran Stock Exchange. Using a sample of 90 companies and logistic multiple regression analysis, the study documents a positive and significant relationship between institutional ownership and audit quality. Abu, Nyor and Okpanachi (2018) studied the effect of institutional and block-

holder ownership on audit quality of listed manufacturing firms in Nigeria. Using logistic regression model to analyze the data, the results showed that institutional ownership has negative but significant effect on audit quality.

Kiamehr et al. (2015) investigated the effect of institutional owners on monitoring costs with a sample of 84 Tehran stock exchange-listed firms from 2006 to 2012 was statistically analyzed. Pearson correlation coefficient and multivariate regression were used to test the hypotheses. A significant and positive relationship between institutional ownership and monitoring cost was established. The results also indicated a positively significant association between institutional ownership and audit fees and executive compensation. Azadi and Mohammadi (2014) reported an insignificant relationship between institutional ownership and audit fees after studying institutional ownership and audit fees in fifty firms listed in Tehran Stack Exchange between 2008 and 2012.

### **3. Methodology**

Experimental research design was employed in this study. The sample size of 36 manufacturing companies was selected using purposive sampling technique and a two-point filter method of those companies listed before 31/12/2007 and not delisted/relisted within the study period. In line with the main thrust of this study, secondary data were used. The data were obtained principally from the annual reports and accounts of the companies under consideration and analysis was done using descriptive and inferential statistics.

#### **3.1 Variables Definition and Measurement**

In this study, institutional ownership structure is the independent variable and audit quality represents the dependent variable; auditor's tenure is the proxy for audit quality. Firm size (FSize) and financial leverage (FLev) were used as control variables metrics.

##### **3.1.1 Independent Variable Measurement**

**Institutional Ownership:** Institutional ownership refers to the total number of shares owned by institutional investors such as banks, insurance companies, pension fund, enterprise funds, investment funds, government-owned companies and generally major corporate shareholders [41].

$$\frac{\text{Number of shares owned by institutional shareholders}}{\text{Total number of issued share capital of the company}} \times 100$$

##### **3.1.2 Dependent Variable Measurement**

The dependent variable represents the measures of audit quality (Audit tenure) that may be affected by institutional ownership structure. Scholars such as: Adeniyi and Mieseigha, (2014), Babatolu et al. (2016), James and Izien (2014), Lennox (2005), Okolie, (2014), have employed audit tenure as audit quality measure. According to Babatolu, et al. (2016), auditor's tenure is the length of relationship between an auditor and client's firm. Extremely prolonged acquaintance of auditors with the clients may jeopardize auditors' independence. Audit quality in relation to auditors' tenure was measured using number of years spent as auditor for the companies under consideration. In line with the study carried out by Adeniyi and Mieseigha (2014), James and Izien (2005), we assigned 1 if the tenure is 5 years and above, 0 otherwise.

##### **3.1.3 Control Variable Measurement**

Firm size and financial leverage have been employed as control variables, this was deemed necessary in order to control for the influence of firm characteristic factors that may equally influence audit quality. Kheirollahi et al. (2014) and Zuregat (2011) have used these metrics as control variables. The natural logarithm of total assets of the sampled companies have been used to measure firm size while financial leverage was measured by dividing total debt of the companies by their total assets (total debt/total assets).

### **4. Data Analysis, Results and Discussion Of Findings**

Panel data methodology was used for estimation while descriptive and inferential statistics were employed for data analysis.

#### 4.1 Model Specification

The following model was formulated for the purpose of this study

$$AUDit_{it} = \alpha_{it} + \alpha_{it} + \beta_1 I\_own_{it} + \beta_2 Fsize_{it} + \beta_3 Flev_{it} + \epsilon_{it} \quad (1)$$

Where; AUDit represents audit tenure (audit quality); I-own represents institutional ownership; F-size connotes firm size and Flev stands for financial leverage. The regression coefficients are alpha ( $\alpha$ ) and betas ( $\beta$ ) while the subscript i represents the entity of each quoted firm at time (t), while subscript t represents the years, t = 2007... 2017.

#### 4.2 Descriptive Statistics

The result in Table1 presents the number of observations, mean, median, maximum, minimum and standard deviation of each of the dependent and explanatory variables. In this case, the dependent variable is auditor's tenure (AUDit) while the explanatory variables include institutional ownership (I-own), firm size (F-size) and financial leverage (F-lev). Auditor's tenure (AUDit) has a minimum value of 0 and a maximum value of 1. These figures imply that the indicator is truly a dummy variable with the value of one (1) where a particular external auditor is engaged more than three (3) years consecutively during the period under review and zero (0) otherwise. Moreover, the average value of audit tenure is 0.81 suggesting that the services of certain external auditors are engaged more than three (3) consecutive years mostly during the period. Institutional ownership has a minimum value of 0.00 and a maximum value of 0.96 with a Standard deviation of 0.26. These show that the proportion of share owned by the institution (both private and public) ranged between 0.00% and 96.0%. Correspondingly, the average value of I-own is 0.49 and the median value is 0.54 suggesting that on average, the proportion of share owned by institutions is about 49.0% of the entire shares which also varies relatively. In measuring size of the companies under consideration, the natural logarithm of the total asset was computed. The average value of F-size was calculated to be 15.81 while the median value is 15.77. These indicate that the firms are relatively similar in terms of size. In addition, the minimum and maximum values of 11.13 and 20.10 with a Standard deviation value of 2.02 further confirmed that during the period, all the firms' asset do not vary much.

For firm leverage, the ratio of total liabilities to total assets was computed which indicates the ability of a firm to pay out debt from its total asset. The mean and median values of Flev are 1.01% and 0.56% respectively. On average, it indicates that the ratio of the total debts to total assets is 101.0% and that the debt is about 56% of the companies' assets during the period in terms of middle value. The minimum and maximum values of 0.00 and 22.06 with a Standard deviation value of about 2.42 show that during the period, one of the firms' assets is as low as 0%.

**Table 1: Summary of Descriptive Statistics**

	Obsns	Mean	Median	Maximum	Minimum	Std. Dev.
<b>Dependent Variable</b>						
<b>AUDit</b>	396	0.81	1.00	1.00	0.00	0.39
<b>Explanatory Variables</b>						
<b>I-own</b>	396	0.49	0.54	0.96	0.00	0.26
<b>F-size</b>	396	15.81	15.77	20.10	11.13	2.02
<b>Flev</b>	396	1.01	0.56	22.06	0.00	2.42

**Source:** Author's desk report (2019). **Note:** Auditors' Tenure (AUDit), Institutional ownership (I-own); Firm Size (F-size) and Financial leverage (F-lev).

#### 4.3 Pearson Pairwise Correlation

According to the results presented in Table 2, the correlation coefficients of  $r = -0.025$ ,  $r = 0.004$ ,  $r = 0.012$  indicate that Auditor's Tenure (AUDit) has negative correlation with institutional ownership (I-own) but positive correlation with firm size (F-size) and financial leverage. The explanatory variables correlation coefficients take values between -0.025 and 0.222 which

indicates that none of the correlation coefficients is too high to the point of causing multicollinearity problem.

**Table 2: Correlation Matrix**

Correlation	AUDit	I-own	F-size	Flev
<b>AUDit</b>	1			
<b>I-own</b>	-0.025	1		
<b>F-size</b>	0.004	0.222	1	
<b>Flev</b>	0.012	0.030	-0.333	1

**Source:** Author's Desk Report (2019). **Note:** Audit Tenure (AUDit), Institutional Ownership (I-own); Firm Size (F-size) and Financial Leverage (F-lev).

#### 4.4 Empirical Analysis

##### Institutional Ownership Structure and Auditor's Tenure (AUDit)

$$AUDit_{it} = 1.938 - 0.339I\_own_{it} - 0.067Fsize_{it} + 0.013Flev_{it} + e_{it}$$

This sub-section presents the regression result on the relationship between institutional ownership structure and audit quality as measured by auditors' tenure of Nigerian quoted manufacturing companies using the pooled (OLS), random effect and fixed effect models. In order to achieve this, auditor's tenure (AUDit) is regarded as dependent variable while the explanatory variables are institutional ownership (I-own), Firm size (Fsize) and Financial leverage (Flev). According to the result in Table 3, the Breusch and Pagan Lagrange multiplier (LM) test result for Pooled and Random Effect Model is statistically significant implying that the null hypothesis should be rejected. Thus, Random Effect model is appropriate. However, based on the result of LM; the study also conducted Hausman test which is also statistically significant suggesting the rejection of null hypothesis. These show that the available data is not poolable and that Random Effect model is not appropriate for this purpose; rather Fixed Effect model is appropriate.

**Table 3:** Breusch and Pagan Lagrange multiplier and Hausman Test for Auditor's Tenure

Tests	Breusch-Pagan Lagrange Multiplier (LM)	Hausman test
<b>Chi2</b>	4.417	16.81
<b>P-Value</b>	0.036	0.002

#### 4.5 Discussion of Regression Results

In column 3 of Table 4, the significant F-statistics value ( $F = 1.691$ ;  $P$  - value = 0.007] shows that the fixed effect model is statistically significant. The coefficient of determination ( $R^2$  - squared) value which is 0.164 implies that the explanatory variables account for about 16.4% changes that occur in the dependent variable. The regression results revealed a negative and insignificant relationship between institutional ownership (I-own) and firm's audit quality as measured by auditor's tenure (AUDit). This is confirmed by the associated coefficient ( $\beta = -0.339$ ;  $P$ -value = 0.304). The negative and insignificant result suggests that the effect of institutional ownership (I-own) on audit quality of the selected firms in terms of auditor's tenure (AUDit) is insignificant. This result justifies our *apriori* expectation. For firm size (Fsize), the coefficient is seen to be insignificant ( $\beta = -0.067$ ;  $P$  – value = 0.189); again, the negative and insignificant result suggests that the effect of firm size (Fsize) on audit quality of the selected firms in terms of auditor's tenure (AUDit) is insignificant. The coefficient ( $\beta = 0.013$ ;  $p = 0.415$ )

of financial leverage (Flev) shows a positive but insignificant relationship with auditor's tenure (AUDit). Therefore, the insignificant result suggests that the effect of financial leverage (Flev) on Audit quality of the selected firms in terms of auditor's tenure (AUDit) is insignificant.

The result of this study supports the findings of Azadi and Mohammadi (2014) who reported an insignificant relationship between institutional ownership and audit fees. However, Pouraghajan et al. (2013) reported a positive and significant relationship between institutional ownership and audit quality. Seyedeh et al. (2016) also reported a negative but significant impact of auditor reputation and institutional ownership on earning management. Similarly, Mitra et al. (2002) in the study of the relationship between ownership characteristics and audit fees among New York stock exchange-listed firms from 2000 to 2005 revealed a positive and significant association between institutional ownership and audit fees. Abu et al. (2018) results showed that institutional ownership has negative but significant effect on audit quality while block-holder ownership has positive and significant effect on audit quality. Kiamehr, et al. (2015) also confirmed a significant and positive relationship between institutional ownership and monitoring cost. The results also indicated a positively significant association between institutional ownership and audit fees and executive compensation.

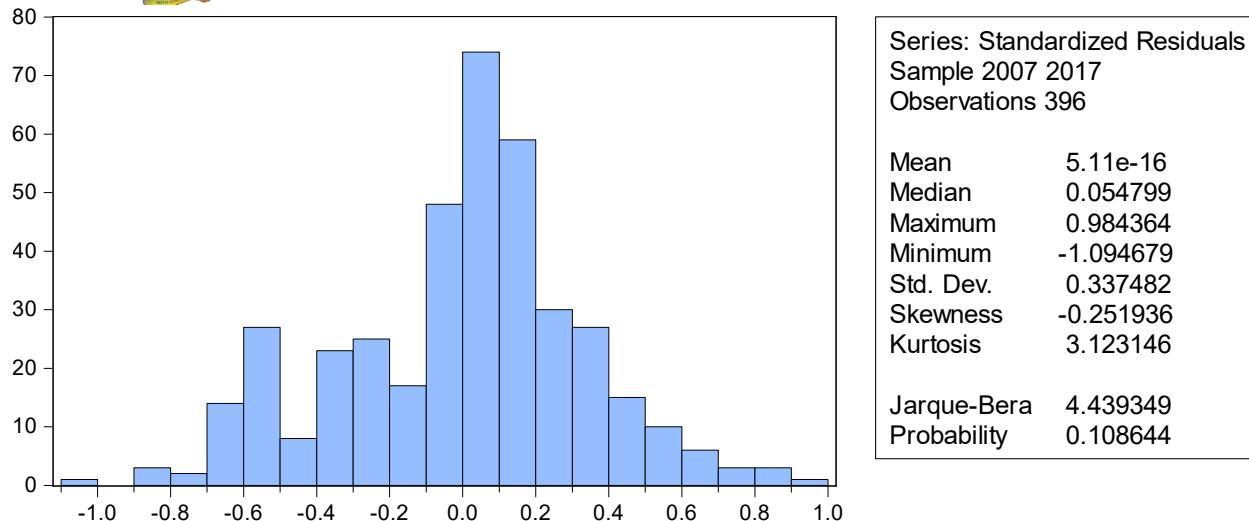
**Table 4: Regression result of Auditor's Tenure**

Variable	Pooled Effect	Random Effect	Fixed Effect
<i>I_OWN</i>	-0.094 (0.246) [0.702]	-0.099 (0.278) [0.723]	-0.339 (0.330) [0.304]
<i>F_SIZE</i>	0.005 (0.013) [0.720]	0.002 (0.018) [0.893]	-0.067 (0.051) [0.189]
<i>FLEV</i>	0.001 (0.01) [0.962]	0.004 (0.012) [0.713]	0.013 (0.016) [0.415]
<i>C</i>	0.756*** (0.191) [0.000]	0.806*** (0.264) [0.002]	1.938** (0.772) [0.013]
<i>Observations</i>	<b>396</b>	<b>396</b>	<b>396</b>
<i>R</i> <sup>2</sup>	<b>0.017</b>	<b>0.013</b>	<b>0.164</b>
<i>Adj. R</i> <sup>2</sup>	<b>0.002</b>	<b>-0.002</b>	<b>0.067</b>
<i>F-Statistic</i>	<b>1.140</b>	<b>0.846</b>	<b>1.691</b>
<i>Prob. (F-Stat.)</i>	<b>0.338</b>	<b>0.535</b>	<b>0.007</b>

**Source:** Author's Desk Report (2019), **Note:** The dependent variable is Auditor's Tenure (AUDit). The Independent variable is Institutional ownership (I-own) and control variables are Firm size (Fsize) and Financial leverage (Flev); **Standard deviation( )**, **Probability [ ]**. \*\*\*  
 $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

#### 4.5 Diagnostic Tests for Auditor's Tenure

Also, this study used Jarque-Bera statistic to check whether the error term of the estimated model when the auditor's tenure is regressed on is normally distributed. From Figure 1, the test statistics and its associated p-value is statistically insignificant. These mean that the residual is normally distributed. For heteroskedasticity, the study used heteroskedasticity consisted standard error, hence the test for constant variance isn't required.



**Figure 1:** Diagnostic tests for auditor's tenure

## 5. Conclusion and Recommendations

This study assessed the characteristic influence of institutional ownership structure on audit quality of Nigerian quoted manufacturing companies. In achieving this objective, hypothesis was formulated and tested to establish the impact and the level of significance which was achieved through descriptive statistics, correlations and linear regression analyses. The study covers a period of eleven years from 2007 to 2017. Based on the findings of this study, it can be concluded that institutional ownership structure has no significant influence on audit quality. The non-significant result may be due to the peculiarity of Nigerian corporate ownership structure which is different from other developed and developing nations. Therefore, the hypothesis of institutional ownership structure influencing audit quality may not always be valid. Additionally, it is demonstrated in the study that the results are robust given various sensitivity tests conducted. The study is novel as it contributes to the extant literature that researched into the role of ownership structure in influencing firms audit quality and it contributes to the literature that investigates the propelling factors that increase client's quest for quality audit. It is recommended that future studies should consider other measures of audit quality such as audit fees, audit size and audit committee independence; as this may reveal more convincing results.

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## FIRMS CHARACTERISTICS AND PERFORMANCE OF LISTED CONGLOMERATES FIRMS IN NIGERIA: AN EMPIRICAL ANALYSIS

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### Abstract

The main aim of this study is to assess the effect of firm's characteristics on the performance of listed conglomerates firms in Nigeria. This research adopts correlational and ex-post facto designs. The population of this study consists of the six (6) conglomerate firms listed on the floor of the Nigeria Exchange Group (NSE) as at December, 2020. The study adopts census approach and data were collected from the published annual reports and accounts of the sampled conglomerate firms covering the period of five (5) years (2016-2020). Descriptive statistics, correlation analysis and multiple regressions analysis were used as techniques of data analysis. Diagnostic tests such as multicollinearity, heteroskedasticity, normality and hausman specification were performed in support of the application of the Random Effects Models used to analyze the nature and the degree of the relationships. The study found that leverage has a positive and significant effect on performance of listed conglomerate firms in Nigeria; there is significant relationship between institutional ownership and performance of listed conglomerate firms in Nigeria; there is significant relationship between women directors and performance of listed conglomerate firms in Nigeria. The study recommended that the management of listed conglomerates firms in Nigeria should ensure they hold adequate level of financial leverage to ensure that they do not affect other functions of the firm.

**Key words:** Performance, Firm characteristics, Nigeria, Conglomerates

### 1.1 Introduction

The importance of firm characteristics on the performance cannot be over emphasized. Firm increases its leverages in order to invest in its operations without increasing its equity. Leverage is the amount of debt used to finance firms' assets and other capital expenditure that can improve firms' performance (Abdullahi, 2016, 127).

Onyekwelu, Ugwu and Okoh (2017, 62) stated that leverages disciplines managers, as the debt level may be used to monitor managers. Thus, it is documented that increasing leverage components of a firm's capital structure may increase the level of efficiency and thereby increasing their performance. Company's managers who are able to identify the level of leverages as components of firms' capital structure are rewarded by reducing firm's cost of finance thereby maximizing the firm's revenue. From creditor's points of view, it is possible that debt to equity helps in understanding firms' risk management strategies and how firms determine the likelihood of default associated with firms' financial performance.

Haniffa and Huduib, (2016, 85) viewed performance as the various indices used in the evaluation of an entity in a given period. The performance can be financial or non-financial metrics. The concept of firm performance forms the core of strategic management and empirically, most studies in accounting and in finance uses the financial metrics. The finance performance measure as used by the accountant is limited by standards established by the profession and hence impacted by the accounting practices (Kapopoulos & Lazaretou, 2017,

28). Financial performance can be measured differently by different researchers, but in a wider perspective four (4) major groups of accounting ratios were used to measure financial performance. The measurement shows how effective the management are in the use of assets to the advantage of shareholders (Ibrahim & AbdulSamad, 2016, 101).

Performance is a measure of organisations' results in terms of their operations. This measure can be in financial or nonfinancial metrics. Financial performance refers to monetary measurement of results of firm's policies, and procedures over a period of usually by computing Return on Assets or Return on Equity (Akenga, 2017, 92). A company should earn profit to survive and grow over a long period. Profitability is crucial to a business firm, but it should not be pursued at the expense of other stakeholders' interests.

A firm characteristic refers to those variables of motivations which are moderately sticky to firms at various levels and across time (Irom, Joshua, Ahmed & Emmanuel, 2020, 70). Hassan and Farouq (2017, 88) posited that firm structural characteristics are vital components of companies' characteristics which refer to characteristics that deal with structure of companies mostly distinctive to the company. These structural attributes which include leverage, age and size have implications on performance. According to Abubakar and Haruna (2018), firm's characteristics include ownership structure, firm size, firm age, levels of diversification, financial leverage, firm profitability and liquidity, institutional shareholding, and tangibility.

Understanding the nexus between firm characteristics and performance of various sectors of an economy is important to all stakeholders. Studies have been conducted in different parts of the world on the role that firm attributes in determining organizational performance.

The relationship between performance of the firm and firm characteristics is a subject of considerable debate both theoretically and in empirical literature. An optimal firm characteristic is expected to achieve maximum firm value or market value, increase in profitability, decrease in risk, and lower the weighted average cost of capital (Benjamin & Mailafia, 2019, 97). It therefore becomes a concern if organizations are unable to achieve maximum financial performance through optimum firm characteristics.

Many studies on firms characteristics were identified with a particular sector, for instance, Oil and Gas sector (Onyekwelu, Ugwu & Okoh, 2017, 62); building material firms (Abdullahi, 2016, 127); insurance sector (Abubakar& Haruna, 2018, 60); manufacturing firms (Irom, Joshua, Ahmed & Emmanuel, 2020, 70), industrial goods firms (Farouk, Magaji & Egga, 2019, 224) Brewery firms (Abubakar, 2017, 69). From whatever view, it becomes necessary to investigate firm characteristics and performance of the firm; and find out whether the characteristics of quoted conglomerate firms in Nigeria have an influence on financial performance both internally and externally.

A conglomerate is so named because it combines several unrelated enterprises under a single corporate structure/business name. Conglomerates are multinational companies that combine different lines of businesses which could range from manufacturing to agriculture, from consumer goods to hotel or even from real estate to automobile. Conglomerates have the ability

to increase their stock value as it permits them to raise more money and take out loan to buy more companies. People in turn find it secure to invest in conglomerates as they can easily diversify which can help reduce their investment risks. Performance is an important issue to various stakeholders who have a direct or indirect interest in the entity. Despite the pivotal role performance plays in the going concern of conglomerate firms, the performance of most conglomerate firms in Nigeria in relation to firm age, firm size, liquidity, leverage, board composition, institutional ownership and women directors of the firm have not drawn much consideration of researchers in area of finance. This may be ascribed to absence of comprehensive assessment of factors that play important role in profit realization and maximization of conglomerate firms in Nigeria. Therefore, it is of interest to know the extent to which firm characteristics affect the performance of listed firms with a major focus on conglomerate firms in Nigeria.

## **2. Literature Review**

### **2.1 Firm's Characteristics**

Firm characteristics can be defined as the wide varieties of information disclosed in the financial statement of business entities that serve as the predictors of the firms' quality of accounting information and performance (Abdullahi, 2016, 127). Firm characteristics can also be defined as the behavioural patterns of company's operation which can enable them to achieve their objectives throughout the period of their operations. Also firm characteristics refer to the various accounting information reported by firms in their financial statements for a particular accounting period which can send a message to various stakeholders of firms about their performance (Abdullahi, 2016, 127).

A firm characteristic refers to those variables of motivations which are moderately sticky to firms at various levels and across time (Irom, Joshua, Ahmed & Emmanuel, 2020, 70). Hassan and Farouq (2017, 88) posited that firm structural characteristics are vital components of companies' characteristics which refer to characteristics that deal with structure of companies mostly distinctive to the company. These structural attributes which include leverage, age and size have implications on performance of an organization. According to Abubakar and Haruna (2018, 60), they include ownership structure, firm size, firm age, levels of diversification, financial leverage, firm profitability and liquidity, institutional shareholding, and tangibility. Firm characteristics could be controllable or uncontrollable, internal or external to the firm's decision and could be prone to managers' manipulation.

Firm characteristics are said to have significant role in explaining firm level earnings quality because they are variables that affect the firm's decision both internally and externally (Efuntade & Akintola, 2020, 105). The incentive variable which may affect financial reporting quality ranges from firm size, leverage, profitability, Liquidity, firm growth, firm age among others.

### **2.1.1 Leverage**

Leverage finance refers to the funding a company or business entity with debt with the hope of improving the firm's financial performance. Leverage financing is commonly employed by a company to achieve a specific or temporary objective, such as acquisition of another business, to affect a buy-out, to purchase shares or fund a one-time dividend, or to invest in self-sustaining cash-generating assets (Pachori&Tatala, 2012) as cited in Farouq and Hassan (2017, 88). Leverage financing on the other hand refers to the ratio of debt to equity capital of a company. As a result of the payment of interest and repayment of principal amount of the debt a large part of the firm's cash flow would decrease. Financial leverage also involved the use of debt to acquire additional assets. It can be financial or operating leverage.

Financial leverage is the use of borrowed money to increase production volume and sales as well as earnings of a company for better performance. It is measured as the ratio of total debt to equity of a firm (Efuntade & Akintola, 2020, 105). The greater the amount of debt, the greater the financial leverage of a firm.

### **2.1.2 Firm Size**

Many companies compete in rapidly changing industries, expansion of manufacturing capacity, geographical presence, market shares and so on which may be imperative for survival (Dogan, 2018, 77). Another strategy in retaining growth involves employing employees who like to work in a company. These people tend to enjoy the diversity of the challenges they encountered in the company and they often have a strong interest in the firm's products and can provide their expertise to customers. Schiner (2016, 86) noted that one of the factors influencing firm size is the availability of workers and other resources in the surrounding community where the business is operating.

### **2.1.3 Firm Age**

Pickering, (2017, 36) define firm Age as the length of incorporation. They argued that since a firm is a legal person, is born through incorporation. Aging as it is with human process is associated with a general decline in the physical functioning of the human body, such as the ability to remember, react, move and hear. On the other hand Ericson and Pakes, (2015, 49) opine that firms specialize and find ways to standardize, coordinate and speed up their production process, as well as to reduce costs and improve quality as they get older, this enhance their performance. In this study, the year of incorporation is used as the year of the birth, hence the firm age is the length of incorporation that is, date of incorporation till date.

### **2.1.4 Liquidity**

A company's liquidity position is measured as a ratio of its current assets to current liabilities; it represents the possibility that a firm will be able to meet its financial obligations as fall due (Omolehinwa, 2016, 387). Suppliers, creditors and other short-term lenders of funds require a very sound liquidity position of a firm in order to have confidence in the firm's ability to satisfy their requirements (Kurfi, 2017, 80). This is because a firm with weak liquidity position would

scare suppliers and creditors, particularly banks who often impose minimum liquidity constraints in their loan agreements with firms. Empirical studies have shown that financial managers spend much of their time and efforts to daily internal operations relating to the current assets and current liabilities of their firms.

## **2.2 Concept of Performance**

Performance is a measure of organisations' results in terms of their operations. This measure can be in financial or nonfinancial metrics. Financial performance refers to monetary measurement of results of firm's policies, and procedures over a period of usually by computing Return on Assets or Return on Equity (Akenga, 2017, 220). A company should earn profit to survive and grow over a long period. Profitability is crucial to a business firm, but it should not be pursued at the expense of other stakeholders' interests.

Firms' performance is of vital importance for investors, stakeholders and the economy at large. Investors are interested in the returns for their investment. Well performing businesses can bring higher returns to their investors. Financial performance of a company will increase the income of its employees, bring quality products to its customers and become friendlier to its operating environment (Mirza & Javed, 2013, 40).

## **2.3 Empirical Review of Related Literature**

### **2.3.1 Firm's Characteristics and Performance**

Tahir, Sabir, Alam and Ismail (2015, 223) investigated the impact of firm's characteristics on stock return: a case of non-financial listed companies in Pakistan. They asserted that the unique characteristics of the firms have some power to predict the expected returns. The secondary data of 307 Nonfinancial companies listed in Karachi Stock Exchange (KSE) were collected from the B-Recorder and Basic Balance Sheet Analysis (BBA) issued by the State Bank of Pakistan for the period from 2000 to 2013. Market Capitalization (MC), sales Growth (SG), Earnings per Share (EPS) and Book to Market value (BMV) were taken as independent variables while Stock Market Returns as dependent variable. First two independent variables were used as proxies for size effect while later as value effect. Economic techniques like Correlation Matrix, Multiple regression analysis, Unit root test and Granger Causality were applied for empirical testing of the data. Results revealed that MC, EPS and BTM value had significant impact while sales growth had no effect on stock market returns.

Ibrahim and Hussaini (2015, 167) conducted a study on Firms' Specific Characteristics and Stock Market Returns (Evidence from Listed Food and beverages Firms in Nigeria). The data for the study was purely from secondary sources obtained from the annual reports of the sampled firms as well as NSE fact book. Data was analysed using several options of multiple panel data regression. But the most robust of all is OLS regression as suggested by 'Breusch and Pagan Lagrangian Multiplier Test for Random Effect'. The study adopted both correlation and ex-post facto research design.

Osunsan, et al. (2015, 229) examined the effect of firm age on the performance of firm's operation in Kampala, Uganda using both financial (net profit before tax) and nonfinancial (operational) performance indicators. Data were collected from a sample of 409 firms. Two hypotheses were formulated for the study, namely: (i) There is a significant difference

between firm age and the level of performance (ii) There is a significant positive relationship between firm age and performance. ANOVA and regression analysis were used to test the hypothesis. Both hypotheses were accepted after the analysis implying that firm age has a strong positive relationship on firm performance.

Amahalu and Ezechukwu (2017, 165) conducted a study on the effect of firm characteristics on financial performance of quoted deposit money banks in Nigeria. This study assesses the extent at which firm characteristics affects financial performance of quoted deposit money banks in Nigeria from 2010-2015. Ex-post facto research design and time-series data were adopted and the data for the study were obtained from fact books, annual reports and account of the quoted banks under study. Pearson coefficient of correlation and ordinary least square (OLS) were applied to test the three hypotheses formulated with aid of STATA 13 statistical software. Findings showed that firm characteristics (proxy by Size) have a positive and statistically significant effect on financial performance (proxy by Return on Asset, Return on Equity and Return on Capital Employed) at 5% significant level.

## **2.4 Signalling theory**

Signalling theory is concerned with understanding why certain signals are reliable and others are not in terms of decision making. Spence (1973) posited that a well performing firm distinguishes itself from the nonperforming one by sending a credible signal about its performance to capital markets as well as potential investors. Signals sent by a firm are the results of its operating activities which would inform investors about the company's future prospects.

Signaling theory was adopted in this study to underpin firm characteristics represented by leverage, firm size, liquidity and operating expenses, because a sound liquidity position of a company is showing its ability to meet up with its short-term financial need without stoppages in production. Also, effective cost management would enable a company to minimize its operating costs of production thereby leading to an improvement in firm's financial performance which is showing a good signal to both current and potential investors that the company can continue to operate in line with the going concern concept of accounting as well as satisfying the interest of its stakeholders.

## **3.1 Methodology**

This research adopts correlational and ex-post facto designs. This ex-post facto research aims to study firm characteristics and the performance of listed conglomerate firms in Nigeria, while the correlational design is to explore the degree of association between all the variables under consideration. The population of this study consists of the six (6) conglomerate firms listed on the floor of the Nigeria Stock Exchange (NSE) as at December, 2020. The study adopts census approach to study all the six listed conglomerate firms on the floor of Nigerian Stock Exchange. The data were collected from the published financial statement of the sampled conglomerate firms covering the period of five (5) years (2016-2020). Descriptive statistics, correlation

analysis and multiple regressions analysis were used as techniques of data analysis. The study uses three models to test the impact of firm's size on performance of listed conglomerate firms in Nigeria. The models are:

$$ROA_{it} = \beta_0 + \beta_1 FSZE_{it} + \beta_2 FAGE_{it} + \beta_3 LEV_{it} + \beta_4 LIQ_{it} + \beta_5 BCO_{it} + \beta_6 INO_{it} + \beta_7 WDI_{it} + \epsilon_{it} \dots \dots \dots \text{(i)}$$

$$ROE_{it} = \beta_0 + \beta_1 FSZE_{it} + \beta_2 FAGE_{it} + \beta_3 LEV_{it} + \beta_4 LIQ_{it} + \beta_5 BCO_{it} + \beta_6 INO_{it} + \beta_7 WDI_{it} + \epsilon_{it} \dots \dots \dots \text{(ii)}$$

$$TOBINSQ_{it} = \beta_0 + \beta_1 FSZE_{it} + \beta_2 FAGE_{it} + \beta_3 LEV_{it} + \beta_4 LIQ_{it} + \beta_5 BCO_{it} + \beta_6 INO_{it} + \beta_7 WDI_{it} + \epsilon_{it} \dots \dots \dots \text{(iii)}$$

#### **4.1 Results and Discussion**

##### **4.2 Descriptive Statistics**

Descriptive statistics simply represents the statistical attributes of the variables in the study model. Table 4.1 presents the descriptive statistics of the dependent variables (ROA, ROE, TOBINSQ) and independent variables (Firm Age, Firm Size, Leverage, Liquidity, Board Composition, Institutional Ownership, Women Directors) of the study.

**Table 4.1: Descriptive Statistics of the Variables**

Variables	Obs	Mean	Std. Dev.	Min	Max
ROA	60	6.0187	5.2847	-1.3200	16.2300
ROE	60	3.5763	4.0631	-6.8556	15.0009
TOBINSQ	60	0.5019	0.2334	0.1453	0.9817
FAGE	60	24.286	8.5105	5.0000	37.0000
FSZE	60	10.518	0.5089	8.6501	11.9418
LEV	60	5.3736	0.7249	4.0000	6.0000
LIQ	60	6.4505	0.6711	5.0000	7.0000
BCO	60	0.6435	0.1048	0.4000	1.0000
INO	60	0.2637	0.4432	0.0000	1.0000
WDI	60	8.3846	2.1846	2.0000	4.0000

**Source: Computation Output**

Table 4.1 describes the descriptive statistics of the variables. It presents the mean, standard deviation, minimum and maximum of all the variables as well as the number of observations conducted in the study. Return on Assets (ROA) which is one of the dependent variables has a mean value of 6.0187 and standard deviation 5.2847 signifying that the data deviate from both sides of the mean value. This implies that there is a wide dispersion of data (profitability of listed conglomerate firms) from the mean, because of the large value of standard deviation which is almost same with the mean.. The minimum and maximum values of the ROA are -1.3200 and 16.2300 respectively.

The table also presents that on average, the value of Return on Equity is 3.5763 and the standard deviation is 4.0631. That is the deviation from the mean is 0.5796 showing that there much variation on is 4.0631 showing that there is much variation on Return on Equity in the

conglomerate industry. The minimum and maximum values are -6.8556 and 15.0009 respectively.

The TOBINSQ has the mean of 0.5019 which is 50% and standard deviation value of 0.2334. The minimum is 0.1453 that is 15% while the maximum is 0.9817 equivalents to 98.2%. The firm age of the listed conglomerate firms in Nigeria on average is 24.286 with a standard deviation 8.5105. This implies that the on average, the conglomerate firms in Nigeria has 24 years. The minimum number of years of cooperation of conglomerate firms in Nigeria is 5 and the maximum number of years is 37.

Furthermore, the table also shows that the mean value of the firm size of the Nigerian listed conglomerate firms is 10.518 with standard deviation 0.5089. The minimum and maximum values of the size of the conglomerate firms are 8.6501 and 11.9418 respectively.

From the table also, the value of leverage of the firms on average is 5.3736 meaning that the mean value is 53% with standard deviation 0.7249. The minimum and maximum values are 4 and 6. The value of the liquidity of the listed conglomerate firms in Nigeria on average is 6.4505 with standard deviation 0.6711. However, the minimum value of the liquidity of the sample firms for the period under review is 5 and the maximum value is 7.

However, the table further revealed that the average value of board composition of the listed conglomerate firms is 0.6435 and the standard deviation is 0.1048. The minimum number of the board composition is 0.4 and the maximum number is 1. On the institutional ownership of the listed conglomerate firms, the mean value is 0.2637 with standard deviation 0.4432. And the minimum and maximum values are 0 and 1 respectively.

Finally, the table shows the number of women directors of listed conglomerate firms in Nigeria. It shows that on average the firms have 8.3846 women directors with standard deviation 2.1846. The minimum number of women directors in the sampled firms is 2 and the maximum number of women directors is 4.

#### **4.3 Correlation Matrix of the Variables**

Correlation analysis tests the degree of associated between the variable that is dependent and independent variable. In this section, the summary of the Pearson correlation Coefficients of the variables of the study are presented in Table 4.3.

**Table 4.2: Correlation Matrix of the Dependent and Explanatory Variables**

Variables	ROE	TOB	ROA	LEV	LIQ	WDI	BCO	INO	FAGE	FSIZ
<b>ROE</b>	1.000									
<b>TOB</b>	0.220	1.000								
<b>ROA</b>	0.118	-0.388	1.000							
<b>LEV</b>	0.152	0.105	0.017	1.000						
<b>LIQ</b>	0.326	0.105	0.195	0.495	1.000					
<b>WDI</b>	0.188	0.060	0.497	0.049	0.199	1.000				
<b>BCO</b>	-0.111	-0.051	0.042	0.024	0.020	0.314	1.000			
<b>INO</b>	0.131	0.307	-0.050	0.105	-0.030	0.250	0.073	1.000		
<b>FAGE</b>	0.039	-0.322	0.152	0.433	0.666	-0.076	0.105	-0.170	1.000	
<b>FSIZ</b>	0.039	-0.031	0.392	0.454	0.660	0.569	0.110	0.234	0.419	1.000

**Source: Computation Output**

Table 4.2 shows the correlation results between firm size variables (firm age, firm size, leverage, liquidity, board composition, institutional ownership, and women directors) and performance (return on assets, return on equity and tobinsq) of listed conglomerate firms in Nigeria.

From the tables its shows that return on equity (ROE) has a positive relationship with all the independent variables with the exception of board composition which has a negative relationship with coefficient value of -0.111.

The correlation analysis further revealed that Tobins Q has a positive relationship with leverage, liquidity, women directors and institutional ownership with coefficient of 0.105, 0.105, 0.060 and 0.307 respectively.

Finally, the table shows that return on assets (ROA) has a positive relationship with all the independent variables with the exception of institutional ownership with coefficient -0.050.

#### **4.4 Regression Results and Hypotheses Testing**

**Table 4.3: Regression Results**

VARIABLES	MODEL 1		MODEL 2		MODEL 3	
	OLS ROB.	RE	OLS ROB.	RE	OLS	RE
<b>CONS</b>	-1.51 (0.134)	-1.38 (0.169)	-3.91 (0.000)	-4.75 (0.000)	0.54 (0.588)	0.54 (0.587)
<b>AGE</b>	1.91 (0.060)	1.97 (0.049)	-2.54 (0.013)	-2.47 (0.016)	-1.89 (0.063)	-1.89 (0.059)
<b>FSIZE</b>	1.88 (0.063)	1.74 (0.081)	3.39 (0.001)	3.88 (0.000)	0.02 (0.983)	0.02 (0.983)
<b>LEV</b>	-0.98 (0.329)	-0.81 (0.415)	-0.77 (0.446)	-0.73 (0.466)	2.58 (0.012)	2.58 (0.010)
<b>LIQ</b>	-1.85 (0.068)	-1.77 (0.077)	1.16 (0.557)	1.00 (0.323)	-1.71 (0.091)	-1.71 (0.087)
<b>BC</b>	-2.09 (0.040)	-1.84 (0.065)	-0.76 (0.451)	-0.61 (0.541)	-0.02 (0.983)	-0.02 (0.983)
<b>INO</b>	-1.14 (0.259)	-1.35 (0.177)	0.39 (0.701)	0.46 (0.649)	2.68 (0.009)	2.68 (0.007)
<b>WDI</b>	4.46 (0.000)	3.88 (0.000)	-2.05 (0.043)	-1.83 (0.071)	-0.12 (0.907)	-0.12 (0.906)
R-squared	0.4141		0.3552		0.3289	
Adj R-squared					0.2544	
Within		0.0066		0.2613		0.0785
Between		0.6208		0.6180		0.4765
Overall		0.4141		0.3552		0.1246
F-value	11.58		3.82		4.41	
Prob>F	0.0000	0.0000	0.0005	0.0000	0.0001	0.0000

**Source: Computation Output**

Table 4.3 presents the regression results of OLS and RE of Models One, Two and Three on the relationship between the dependent variable (performance) represented by ROA, ROE, and TOBIN's Q and the independent variable (firm characteristics) represented by firm age, firm

size, leverage, liquidity, board composition, institutional ownership and women directors. The RE results were selected due to the fact that hausman specification test in both the three models revealed that RE results are more efficient than the FE results. This is evident by the Hausman Prob>chi2 values of 0.2536 in model one, 0.6956 in model two and 0.2588 in model three which is greater than 0.05.

The results from Table 4.3 show that the adjusted coefficient of determination (Adj. R-squared) which gives the proportion or percentage of the total variation in the dependent variable explained by the independent variables jointly are 0.355, 0.3289 and 0.4141 for OLS in Model one, two and three respectively. This implies that about 36%, 33% and 41% changes in firms characteristics and performance of the listed conglomerate firms in Nigeria are caused by the independent variables (firm age, firm size, leverage, liquidity, board composition, institutional ownership and women directors) captured by the models. While, the remaining changes are as a result of other variables that are not addressed by the models. On the hand, the overall R-squared in RE results are 0.3552, 0.3289 and 0.4141 for models one, two and three respectively, meaning that the independent variables cumulatively bring about 36%, 33% and 41% changes in the firm characteristics and performance respectively. The remaining changes are however caused by other factors not considered by the models. Likewise, the OLS P-values of 0.0005, 0.0001 and 0.0000 for models one and two respectively proved that the models are fit, since none of the values reaches 0.05.

Although, both OLS, and RE results are shown in Table 4.3, the RE results are more robust and also more efficient as revealed by hausman specification test, hence the analyses were done based on the RE results. The results revealed that there is significant relationship between leverage and performance of listed conglomerate firms in Nigeria; There is significant relationship between institutional ownership and performance of listed conglomerate firms in Nigeria; There is significant relationship between women directors and performance of listed conglomerate firms in Nigeria.

### **5.1 Conclusion and Recommendations**

Based on the study findings; the following conclusions were drawn:

There is significant relationship between leverage and performance of listed conglomerate firms in Nigeria; There is significant relationship between institutional ownership and performance of listed conglomerate firms in Nigeria; There is significant relationship between women directors and performance of listed conglomerate firms in Nigeria. The study recommends that the management of the firms listed conglomerates firms in Nigeria should ensure they hold adequate level of financial leverage to ensure that they do not affect other functions of the firm.

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