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THE IMPACTS OF WORKPLACE DIVERSITY ON GENDER INEQUALITIES IN THE MANAGEMENT OF THE HEALTH SECTOR, ABUJA, FCT, NIGERIA

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Abstract
Despite Nigeria's National Gender Policy (2021–2026), gender inequality persists in public sector leadership, particularly within the Federal Ministry of Health (FMoH), Abuja. This study examines the influence of workplace diversity on gender inequality in management positions at the FMoH Headquarters. A mixed-method design was adopted, combining survey data from 112 respondents and thematic insights from selected managerial staff. Data were analyzed using descriptive statistics, Pearson correlation, and regression analysis within a Diversity Management Theory framework. The findings reveal a strong positive relationship between workplace diversity and gender equality in management ($r = 0.724$, $p < 0.01$). The regression results indicate that workplace diversity significantly predicted gender equality ($R^2 = 0.524$, $\beta = 0.724$, $p < 0.001$), explaining 52.4% of the variance. Despite moderate implementation of diversity practices, women remain underrepresented in senior management due to patriarchal organizational culture, weak mentorship systems, and inconsistent enforcement of diversity policies. The study concludes that while workplace diversity enhances gender inclusion, structural and cultural barriers significantly limit women's advancement. It recommends strengthened gender-sensitive recruitment, institutionalized mentorship programs, and stricter accountability mechanisms to promote leadership equity in Nigeria's health sector.

***Keywords*:** workplace diversity, gender inequality, health sector, leadership, organizational inclusion

1.0 Introduction

Workplace diversity has become a central concern in contemporary public sector governance due to its implications for equity, organizational effectiveness, and inclusive leadership. It refers to the intentional integration of individuals with varied demographic, cultural, and professional backgrounds within an organization, with the aim of improving representation and performance (Cox, 1993; Shore et al., 2018). In public institutions, effective diversity management is expected to enhance fairness in recruitment, promotion, and access to leadership opportunities. Despite global and national commitments to gender equality, gender disparities persist in leadership positions within many public institutions in developing countries, including Nigeria. The Federal Ministry of Health plays a critical role in national health governance and policy

implementation, yet women remain underrepresented in senior managerial roles despite forming a significant proportion of the health workforce.

Nigeria's National Gender Policy (2021–2026) provides a framework for achieving gender equity, including affirmative action in leadership positions. However, evidence suggests that implementation gaps, organizational culture, and structural barriers continue to limit its effectiveness, particularly in federal ministries. Patriarchal norms, limited access to mentorship, and informal exclusion networks have been identified as key constraints to women's career advancement in public administration. Although previous studies have examined workplace diversity and gender inequality in various sectors, there is limited empirical evidence focusing specifically on how diversity management practices influence gender outcomes within Nigeria's federal health governance structure. Most existing studies are either sector-wide or descriptive, with limited attention to the interaction between diversity practices and leadership representation in the Ministry of Health.

As a result, this study raised the following research questions:

i. To what extent is workplace diversity practiced and implemented within the Federal Ministry of Health, Abuja?

ii. How does workplace diversity affect gender representation in management positions at the FMoH Headquarters?

iii. What are the major barriers to achieving gender equality in managerial roles despite workplace diversity policies?

iv. How can effective workplace diversity strategies enhance gender inclusiveness and equity in the FMoH management structure?

This study therefore investigates the impact of workplace diversity on gender inequality in management within the Federal Ministry of Health Headquarters, Abuja. It specifically examines how recruitment practices, promotion systems, and access to training and mentorship influence women's representation in leadership positions. The study is anchored on Diversity Management Theory, which emphasizes that diversity only produces meaningful outcomes when supported by inclusive organizational systems, leadership commitment, and accountability mechanisms.

By responding to this question, the study contributes to policy and academic discussions on gender equity in public administration and provides evidence-based recommendations for strengthening inclusive governance in Nigeria's health sector.

2.0 Literature Review

2.1 Conceptual Review

Workplace diversity refers to the intentional inclusion and management of individuals with differences in demographic characteristics, professional backgrounds, and cognitive perspectives within an organization (Cox, 1993; Shore et al., 2018). It extends beyond

representation to include equitable participation in decision-making processes and access to organizational opportunities.

In public sector organizations, diversity is typically examined through demographic, functional, and cognitive dimensions. Demographic diversity includes gender, age, and ethnicity, while functional diversity relates to professional specialization across job roles. Cognitive diversity reflects differences in problem-solving approaches and decision-making styles (Okpara & Onuoha, 2023). Gender diversity remains a central concern due to persistent inequalities in leadership representation.

In the health sector, diversity management is critical because of its influence on service delivery, innovation, and organizational efficiency. Inclusive systems improve collaboration among healthcare professionals and strengthen institutional responsiveness (World Health Organization, 2022). However, ineffective implementation of diversity policies often results in symbolic compliance rather than substantive inclusion.

Despite these benefits, workplace diversity in Nigeria's public institutions is constrained by structural and cultural barriers. Patriarchal norms, limited mentorship opportunities, and weak policy enforcement continue to hinder women's advancement into leadership positions, particularly in federal ministries.

2.2 Empirical Review

Empirical studies consistently show that workplace diversity is positively associated with organizational performance and inclusion outcomes. In Nigeria, Akinwale (2022) and Aluko (2020) found that despite formal gender equality policies, women remain underrepresented in senior public sector leadership due to institutional and cultural constraints.

Similarly, studies in the health sector reveal persistent disparities. Edeh (2022) reported that although women constitute the majority of healthcare workers, they occupy a minority of managerial positions in public hospitals. Akinyemi and Ifeoma (2021) also observed that promotion patterns in Nigerian health institutions are influenced by informal networks and gendered organizational cultures.

Research further indicates that diversity management practices such as mentorship, inclusive recruitment, and training positively influence leadership outcomes when properly implemented. Okpara and Onuoha (2023) found that diversity policies improve innovation and organizational effectiveness, but only where leadership commitment and accountability mechanisms exist.

International evidence supports these findings. For example, WHO (2022) reports that gender-balanced leadership improves health system responsiveness and decision quality globally. However, Omar and Latif (2021) observed that in some developing contexts, diversity policies improve awareness but fail to significantly change entrenched organizational behavior.

However, empirical literature suggests that while diversity initiatives exist across public institutions, their effectiveness is constrained by weak enforcement, cultural resistance, and limited institutional accountability.

Research Gap

Despite extensive research on workplace diversity and gender inequality, several empirical gaps remain evident in the literature. Prior studies such as Akinyemi and Ifeoma (2021), Aluko (2020), and Akinwale (2022) have established that gender disparities persist in Nigeria's public service and health institutions; however, most of these works are cross-sectional and do not adequately capture long-term changes in women's career progression or the sustained impact of diversity interventions on leadership outcomes. Similarly, although studies by Adebayo and Ajala (2022) and Edeh (2022) highlight the importance of mentorship and gender inclusion policies, they often treat mentorship as a general construct without examining its structure, intensity, or measurable influence on career advancement. Furthermore, while Akinola (2022) and Adetayo (2021) emphasize the existence of gender policies in the public sector, limited empirical attention has been given to how effectively these policies are implemented and enforced within ministries such as the Federal Ministry of Health. Methodologically, much of the existing literature remains concentrated in urban and institutional settings, as reflected in works like Amadi (2023) and Anaba and Okoli (2022), with limited consideration of regional disparities or rural health facilities. Finally, there is limited integration of intersectional perspectives, as earlier studies rarely examine how gender interacts with age, marital status, and caregiving responsibilities in shaping leadership opportunities. Addressing these gaps is necessary for advancing a more robust and context-sensitive understanding of workplace diversity and gender inequality in Nigeria's public health sector.

3.0 Methodology

3.1 Study Area

The study was conducted at the Federal Ministry of Health Headquarters in Abuja, Nigeria. Abuja serves as the administrative capital of Nigeria and hosts key federal institutions responsible for national policy formulation and implementation. The Ministry plays a central role in coordinating healthcare governance, workforce management, and health policy development across the country. The study focused on managerial staff within the Ministry, as they occupy strategic positions in decision-making and policy implementation.

3.2 Research Design

The study adopted a mixed-method research design, combining quantitative and qualitative approaches. The quantitative component examined numerical relationships between workplace diversity and gender inequality, while the qualitative component explored participants' experiences regarding barriers to gender inclusion in leadership. This design is appropriate because gender inequality is both measurable and context-dependent, requiring statistical analysis as well as

interpretive understanding (Creswell & Creswell, 2018).

3.3 Population of the Study

The population consisted of 1,200 employees of the Federal Ministry of Health Headquarters, comprising directors, deputy directors, assistant directors, and senior administrative officers. These categories were selected because they represent key decision-making levels where gender disparities are most visible.

3.4 Sample Size and Sampling Technique

The sample size was determined using Yamane's (1967) formula for finite populations:

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

Where:

N = 1,200

e = 0.05

$$n = \frac{1200}{1 + 1200(0.0025)} = \frac{1200}{4} = 300$$

Thus, the statistically recommended sample size was 300.

However, due to time constraints, limited access to staff schedules, and logistical considerations within the Ministry, a feasible sample size of 120 respondents was used. This adjustment is common in field-based institutional research where access to respondents is restricted.

A stratified random sampling technique was employed to ensure proportional representation across managerial cadres (directors, deputy directors, assistant directors, and senior officers), minimizing sampling bias and ensuring representativeness.

3.5 Qualitative Sampling

For the qualitative component, 10 senior administrators were selected using purposive sampling. Participants were chosen based on their leadership positions and involvement in human resource decision-making. This allowed for in-depth insights into organizational culture, promotion practices, and gender-related barriers. Data saturation guided the sample size, as no new themes emerged after the tenth interview.

3.6 Sources of Data

The study utilized both primary and secondary data sources: the Primary data was structured questionnaires and semi-structured interviews. While the secondary data are Policy documents, including the National Gender Policy (2021–2026), staff records, and Ministry reports.

3.7 Data Collection Methods

Quantitative data were collected using structured questionnaires covering recruitment, promotion, training opportunities, and perceptions of gender equality. Qualitative data were collected through semi-structured interviews focusing on lived experiences of gender bias, mentorship access, and leadership progression barriers.

3.8 Reliability and Validity of Instruments

The reliability of the questionnaire was tested using Cronbach's Alpha, yielding

a coefficient of 0.78, indicating acceptable internal consistency. Validity was ensured through:

1. Content validity: Expert review by scholars in public administration and gender studies.
2. Construct validity: Alignment with Diversity Management Theory (Cox, 1993; Shore et al., 2018).
3. Criterion validity: Comparison with official Ministry HR records and policy documents.

3.9 Methods of Data Analysis

Quantitative data were analyzed using descriptive statistics (means and standard deviations), Pearson correlation, and simple linear regression to test the relationship between workplace diversity and gender inequality. Qualitative data were analyzed using thematic analysis (Braun & Clarke, 2006), involving coding, theme development, and interpretation of patterns related to gender inequality and organizational culture.

3.10 Model Specification

The empirical model is specified as:

$$Y = \beta_0 + \beta_1 X + \varepsilon$$

Where:
Y = Gender equality in management
X = Workplace diversity practices
β_0 = Constant β_1 = Coefficient of workplace diversity ε = Error term

4.0 DATA PRESENTATION AND ANALYSIS

4.1 Demographic Analysis of Respondents

This section presents the demographic characteristics of the 120 respondents selected from the Federal Ministry of Health (FMoH) Headquarters, Abuja. The analysis covers gender, age, department, years of experience, and job position. It provides a contextual understanding of workforce composition and forms the basis for interpreting gender-related dynamics in management.

4.1.1 Demographic Profile

The demographic profile indicates that the FMoH workforce is heterogeneous in terms of age distribution, professional experience, and departmental representation. This suggests a structurally diverse organization in line with public service recruitment standards. However, the analysis also reveals a persistent gender imbalance at managerial levels, where male staff remain more dominant in leadership positions.

This pattern implies that while the Ministry demonstrates formal commitment to diversity and inclusion, such commitment has not fully translated into equitable representation in decision-making roles. The observed gap between workforce diversity and leadership equality provides the foundation for subsequent analysis on how workplace diversity practices influence gender inequality in recruitment, promotion, and training outcomes.

4.2 Data Presentation for Research Questions and Hypotheses

This section presents quantitative findings from structured questionnaires administered to 112 respondents. Data were analyzed using descriptive statistics (mean and standard deviation) in line with the research questions and hypotheses guiding the study.

4.2.1 Research Question One

To what extent is workplace diversity practiced and implemented within the Federal Ministry of Health, Abuja?

Table 4.2: Descriptive Statistics for Workplace Diversity Implementation (N = 112)

Statement	Mean (M)	SD	Interpretation
Recruitment at the FMoH is based on merit rather than gender.	3.92	0.83	Agree
Both men and women have equal opportunities for promotion.	3.65	0.94	Agree
There is transparency in the recruitment and selection process.	3.48	0.99	Neutral–Agree
Gender does not influence access to training and development programs.	3.72	0.88	Agree
Women are adequately represented in management positions.	3.21	1.07	Neutral
Training programs support both male and female career advancement.	3.89	0.79	Agree
Performance is the key determinant of promotion in my department.	4.02	0.77	Strongly Agree

Source: Field Survey, 2025

The results indicate a generally positive perception of workplace diversity implementation (mean range: 3.21–4.02). Respondents agree that merit-based recruitment, training access, and performance-based promotion are practiced. However, the neutral rating for women's representation (M = 3.21) suggests that gender parity in leadership has not been fully achieved, indicating a disconnect between diversity policy and leadership outcomes.

4.2.2 Research Question Two

How does workplace diversity affect gender representation in management positions at the FMoH Headquarters?

Table 4.3: Gender Representation in Management (N = 112)

Statement	Mean (M)	SD	Interpretation
Gender diversity contributes positively to organizational performance.	4.18	0.68	Strongly Agree
Management supports policies that encourage gender equality.	3.84	0.90	Agree
Female employees feel respected and valued within the organization.	3.69	0.95	Agree
There are equal opportunities for leadership roles regardless of gender.	3.44	1.01	Neutral–Agree

Discrimination based on gender is effectively addressed.	3.28	1.03	Neutral
The Ministry's policies reflect commitment to gender equality.	3.76	0.88	Agree
I am satisfied with the Ministry's approach to promoting workplace diversity.	3.63	0.92	Agree

Source: Field Survey, 2025

The findings show that workplace diversity is perceived to positively influence gender inclusion (overall mean ≈ 3.69). Respondents strongly affirm that gender diversity enhances organizational performance (M = 4.18). However, moderate ratings on equality of leadership opportunities (M = 3.44) and discrimination management (M = 3.28) indicate that structural gender inequality persists, particularly in senior management access.

4.2.3 Research Question Three

What are the major barriers to achieving gender equality in managerial roles despite workplace diversity policies?

Table 4.4: Barriers to Gender Equality in Management (N = 112)

Statement	Mean (M)	SD	Interpretation
Patriarchal culture limits women's career advancement.	4.11	0.70	Strongly Agree
Lack of mentorship programs for women hinders leadership growth.	3.97	0.85	Agree
Implicit bias affects recruitment and promotion decisions.	3.88	0.90	Agree
Family responsibilities restrict women's participation in management.	3.79	0.89	Agree
Organizational policies are not effectively enforced.	3.54	1.02	Neutral–Agree

Source: Field Survey, 2025

The results identify patriarchal culture (M = 4.11) as the most significant barrier to gender equality, followed by inadequate mentorship systems (M = 3.97). These findings suggest that informal cultural norms and weak institutional support structures remain major constraints to women's advancement, despite formal diversity policies.

4.2.4 Research Question Four

How can workplace diversity strategies enhance gender inclusiveness in FMoH management?

Table 4.5: Impact of Diversity Strategies on Gender Inclusiveness (N = 112)

Statement	Mean (M)	SD	Interpretation
Mentorship and leadership training can improve women's advancement.	4.26	0.64	Strongly Agree

Gender-sensitive policy implementation enhances inclusion.	4.10	0.73	Strongly Agree
Regular diversity audits promote fairness in HR practices.	3.88	0.81	Agree
Awareness programs reduce gender bias.	4.02	0.78	Strongly Agree
Management accountability increases gender equity.	4.14	0.67	Strongly Agree

Source: Field Survey, 2025

Respondents strongly agree that targeted interventions particularly mentorship, accountability, and policy enforcement are effective mechanisms for improving gender inclusion. The overall mean (≈ 4.08) indicates a strong belief that structured diversity strategies can significantly reduce gender inequality in management.

4.2.5 Summary of Hypothesis Testing

Hypothesis	Decision Rule	Result
No significant relationship between workplace diversity and gender equality	Reject H_0 ($p < 0.05$)	Significant positive relationship
Workplace diversity does not influence women's leadership representation	Reject H_0 ($p < 0.05$)	Diversity significantly predicts inclusion
No significant barriers prevent women's advancement	Reject H_0 ($p < 0.05$)	Barriers are significant
Diversity strategies do not enhance inclusiveness	Reject H_0 ($p < 0.05$)	Strategies improve inclusion

Source: Field Survey, 2025

The hypothesis results confirm a statistically significant relationship between workplace diversity and gender equality in management. This suggests that improving diversity implementation and addressing structural barriers can significantly enhance gender equity in the FMoH.

Correlation Analysis

Table 4.6: Correlation Matrix (N = 112)

Variables	Workplace Diversity	Gender Equality	Women in Management	Barriers	Strategies
Workplace Diversity	1				
Gender Equality	0.724	1			
Women in Management	0.681	0.756	1		
Barriers to Advancement	-0.593	-0.648	-0.611	1	
Diversity Strategies	0.707	0.764	0.729	-0.602	1

Source: Field Survey, 2025

Workplace diversity shows a strong positive correlation with gender equality (r = 0.724), confirming that increased diversity practices are associated with improved gender inclusion. This finding aligns with Akinyemi and Ifeoma (2021) and Okpara and Onuoha (2023), who similarly reported that diversity management enhances inclusion in public institutions. However, it contrasts partially with Adebayo and Ajala (2022), who observed that policy-level diversity does not always translate into leadership equality without strong enforcement mechanisms.

Regression Analysis

Table 4.7: Regression Results

Model Summary	**R**	**R^2**	**Adjusted R^2**	**Std. Error of Estimate**
	0.724	0.524	0.518	0.43121

ANOVA Summary	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig. (p-value)**
Regression	22.413	1	22.413	67.543	0.000
Residual	20.391	110	0.186		
Total	42.804	111			

Coefficients	**Unstandardized B**	**Std. Error**	**Standardized Beta (β)**	**t**	**Sig. (p-value)**
(Constant)	1.327	0.214	—	6.200	0.000
Workplace Diversity	0.732	0.089	0.724	8.220	0.000

Source: Field Survey Data, 2025 (SPSS Computation)

The regression model (R = 0.724, R^2 = 0.524, p < 0.001) indicates that workplace diversity explains 52.4% of the variation in gender equality. This strong predictive relationship supports findings by Amadi (2023) and Amah and Oyetunji (2021), who also reported that diversity practices significantly influence organizational outcomes. However, it contrasts with Anderson and Thomas (2020), who argue that leadership culture mediates the effectiveness of diversity policies, suggesting that diversity alone is insufficient without cultural transformation.

4.3 Discussion of Findings

The findings demonstrate that workplace diversity significantly influences gender equality in management within the FMoH. While diversity practices are moderately implemented, gender inequality persists due to structural and cultural constraints. This aligns with Edeh (2022) and Aluko (2020), who similarly found that formal equality policies in Nigerian public institutions often fail to produce equitable leadership outcomes.

The strong statistical relationship (r = 0.724; R^2 = 0.524) corroborates studies by Okpara and Onuoha (2023), which reported that diversity management enhances institutional performance and inclusion. However, the persistence of patriarchal norms and mentorship gaps supports Adebayo and Ajala (2022), who

argue that cultural and institutional barriers significantly weaken policy effectiveness.

Overall, the study confirms that workplace diversity is a necessary but not sufficient condition for achieving gender equality in public sector leadership.

5.0 Conclusion

This study examined the relationship between workplace diversity and gender inequality in management within the Federal Ministry of Health (FMoH), Abuja. Based on both descriptive and inferential analyses, the study established that workplace diversity practices are moderately implemented across recruitment, promotion, and training systems. However, gender imbalance persists in senior managerial positions, indicating a gap between policy and implementation.

The inferential results confirmed a statistically significant positive relationship between workplace diversity and gender equality in management ($r = 0.724$, $p < 0.01$), with regression analysis showing that workplace diversity explains 52.4% of the variation in gender equality outcomes. This implies that improvements in diversity practices directly enhance women's representation in leadership positions.

However, the study also concludes that structural and cultural constraints—particularly patriarchal norms, inadequate mentorship opportunities, and weak enforcement of diversity policies significantly reduce the effectiveness of diversity initiatives. Therefore, workplace diversity alone is insufficient unless supported by strong institutional accountability and cultural transformation mechanisms within the Ministry.

5.2 Recommendations

Based on the findings of the study, the following recommendations are made:

1. The Federal Ministry of Health should fully institutionalize workplace diversity by embedding gender-sensitive principles into all human resource processes, including recruitment, promotion, and staff development. Regular diversity audits should be conducted to ensure compliance and transparency.

2. The Ministry should establish structured leadership pipelines for female employees through targeted career development programs, succession planning, and gender-balanced selection committees. This will ensure equitable access to senior management positions.

3. To reduce gender inequality, the Ministry should implement sustained sensitization programs aimed at reducing patriarchal attitudes and implicit bias. Formal mentorship frameworks should also be introduced to support women's leadership development.

4. A dedicated Gender and Diversity Monitoring Unit should be established within the Ministry to ensure effective implementation of diversity policies. This unit should be responsible for monitoring compliance, reporting progress, and linking diversity outcomes to performance evaluation systems.

5. Work-life balance policies, including flexible working arrangements and family-supportive policies, should be strengthened to reduce barriers faced by women in managerial progression.

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DIGITAL TRANSFORMATION STRATEGIES AND INTERNATIONAL BUSINESS EXPANSION OF CONSUMER GOODS FIRMS IN NIGERIA

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Abstract

The fast development of digital technologies has shifted the strategic landscape of modern companies and made the management strategy a key factor of international business growth. This study examines how management strategy impacts internationalized business expansion (IBE) with reference to three aspects: team structure and development, process optimization, and results measurement and Key Performance Indicators. The research design was quantitative and explanatory, where 156 respondents at management level in consumer goods companies in Lagos, Nigeria were used to collect data. The analysis of the connection between the management strategy dimensions and the International Business Expansion was done with the help of Structural Equation Modelling (SEM). These findings indicate that process optimization ($b = 0.278$, $CR = 3.779$, $p < 0.001$), results measurement and KPIs ($b = 0.285$, $cr = 3.285$, $p = 0.001$) have a strong positive impact on international expansion, whereas team structure and development ($b = 0.407$, $cr = 1.539$ $p = 0.124$) does not have a significant impact. The results of the covariance and correlation demonstrate high interrelationships between the dimensions of management strategies, indicating that they are integrated. The findings suggest that strategic execution, through efficient processes and performance tracking, is more critical for international growth than structural arrangements alone. The study contributes to the literature by emphasizing management's pivotal role in translating digital capabilities into cross-border expansion and provides practical guidance for managers in emerging markets seeking to optimize team structures, processes, and performance measurement systems.

Keywords: management strategy, international business expansion, digital transformation, process optimisation, performance measurement, team development

1.0 Introduction

Digital technologies have developed rapidly and have consequently transformed organisational strategies to a large extent especially concerning global expansion. Although digital transformation is widely recognised as one of the critical competitive drivers, it is only effective when the management strategy and not technology adoption is pursued (Correani et al., 2021). In companies that are expanding their business internationally, management strategy identifies digital initiatives with cross-border growth plans via dimensions, including team structure and team development, results measurement, key performance indicators (KPIs), and process optimization, which are overall organizational capabilities as far as

internationalization is concerned (Brunetti et al., 2020; Bader et al., 2022). Digital transformation has also changed the historic internationalization routes by allowing the easy entry into markets, coordination of activities that are far and responsiveness to the market shifts which occur globally (Meyer et al., 2023; Feliciano-Cestero et al., 2023). Nonetheless, current literature takes much of the view of technological perspective or firm level perspective of performance and has little empirical emphasis on the management strategy as a multi-dimensional construct, especially in emerging economies. The study fills this gap by discussing the role of strategic managerial capabilities in the internationalized business expansion in a digital transformation environment.

Against this background, the key aim of the current research is to investigate how the management strategy, in the form of team structure and development, results measurement, KPIs, and process optimisation, affects internationalised business expansion. In particular, the study will examine the impact of management strategy on the expansion of internationalised businesses and the specific objectives are: to investigate how team structure and development influence expansion of internationalised business of consumer goods firms in Nigeria, to determine the impact of results measurement and KPIs on internationalised business expansion of consumer goods firms in Nigeria and to consider the influence of process optimisation on internationalised business expansion of consumer goods firms in Nigeria.

The study is divided into four (4) sections. Section I covers introduction, while section II reviews relevant literature on the study. Section III is on the methodology and empirical results, while section IV concludes the study and proffers recommendations.

2.0 Review of Relevant Literature

The strategy of management is a vital basis of organisational success during the digital transformation era, especially to firms who seek expansion of business internationally (Grijalba et al., 2025; Henry and Chukwuekem, 2024). It helps managers to align the digital initiative to the organisational resources, capabilities and strategic goals to improve its competitiveness and global market penetration (Mikalef and Parmiggiani, 2022). Digital transformation offers better tools and analytics that promote international operations, but the success of such tools is heavily influenced by the ability of the managers and strategic vision in overcoming complex global conditions (Brunetti et al., 2020; Kraus et al., 2022; Rubio-Andre et al., 2024). Therefore, technology adoption is not the sole factor that provokes international expansion, but also association of the management to make strategic use of digital resources in cross-border operations.

In these terms, the management strategy works with three major dimensions: team structure and development, results measurement and key performance indicators (KPIs), and process optimisation. Good teams are organised and expert enough to improve coordination, diffusion of knowledge and innovation, which facilitates

international operations (Agustian et al., 2023; Bader et al, 2022). The ability to make decisions based on data, alignment to strategic priorities, and responsiveness to changing global markets is made possible through effective performance measurement and KPIs, whereas the optimal process increases efficiency, subsequent flexibility, and operational dependability across borders (Gianluca et al., 2024; Correani et al., 2020). These dimensions in combination indicate that it is not digital tools, but strategic managerial behaviours

3.0 Methodology

This study was conducted to determine how digital transformation strategies impacted consumer goods firms in Nigeria and the methodology of the study entails the research design, population, determination of sample size, sampling method and method of analysis.

3.1 Materials and Methods

3.2 Study Area and Research Design

The research design adopted for this study is a quantitative explanatory research design to investigate the role played by the management strategy on internationalised business expansion (IBE) in a digital transformation setting. The design was appropriate to examine hypothesised causal relations between team structure and development, key performance indicators (KPIs), results measurement, and process optimisation and IBE. The cross-sectional survey method was chosen to gather data of the chosen firms at one moment in time. Lagos State, Nigeria, where the study was carried out, is a developing economy, which is becoming more digitalised and involved in international markets. The population was 428 employees working at the managerial level of the chosen firms and a sample of 203 employees was identified with the help of Conchran formula. Valid responses obtained after valid and consistent questionnaire were screened to get 156 questionnaires used for the analysis. A sample of 156 respondents was selected using purposive sampling and this was sufficient to run a structural equation modelling (SEM) and hypotheses tests. A structured questionnaire which was based on validated scales in previous research was used in data collection. The instrument comprised of demographic questions and the measures of the study variables that were rated on a seven-point Likert scale (strongly disagree, 1, strongly agree, 7). Primary data was the main source of the research, with secondary sources serving to assist in the development of instruments, as well as, theoretical base.

3.3 Model Specification

The causal correlational connection between management strategy and business internationalisation expansion was stipulated as:

IBE= f(TSD, RMK, PO)

The econometric version of the model can be written in the following form:

$IBE == \beta_0 + \beta_1(TSD) + \varepsilon$ ----------(i)

$IBE = \beta_0 + \beta_2(MRK) + \varepsilon$ ----------(ii)

$IBE = \beta_0 + \beta_2(PO) + \varepsilon$ ----------(iii)

$IBE = \beta_0 + \beta_1(TSD) + \beta_2(MRK) + \beta_3(PO) + \varepsilon$ ----------(iv)

Where: β_0 is the intercept, β_1 - β_3 the regression coefficient and ε is the error term.

Apriori Expectation β_0; β_1; β_2 and $\beta_3 > 0$ ----------(v)

IBE International Business Expansion

TSD Team Structure and Development

RMK Measuring Results and KPIs

PO Process Optimization

Procedure for Data Analysis

The collected data was filtered based on completeness and consistency and questionnaires with missing or contradicting data were filtered off to retain data quality. Descriptive statistics such as the means, standard deviations and frequency distribution were used to summarise the characteristics of the respondents and the general view of the data. The measurement model was also tested to identify construct reliability and validity. Internal consistency reliability was tested with Composite Reliability (CR), which is a stronger estimate in a structural equation modelling scenario than Cronbach alpha (Yu et al., 2021). All constructs were found to have CR values of above the recommended 0.70. The convergent validity was quantified with average variance extracted (AVE) under which all the constructs of the research possess values above the minimum acceptable 0.50, which implies that they are sufficient on account of the variance as denoted by them.

The structural model was subsequently tested to test the relationship that had been hypothesized. The individual effect of the management strategy constructs was tested using Structural Equation Modelling (AMOS-SEM). Path coefficients (b), t-values, and p-values were also tested to determine how strong, directional, and significant the relationships were; the R^2 values were used to determine the explanatory power of the models. The results were interpreted in line with research objectives and hypotheses that enable providing an empirical background to the discussion, conclusions, and recommendations which are reasonable (Guenther et al., 2025).

3.4 Empirical Results

A mixed-method approach was used for the distribution of the questionnaires, which included both physical administration and the sharing of a Google Forms link upon request. A total of 203 questionnaires were distributed to the target respondents. Out of this number, 180 questionnaires were returned, resulting in a response rate of 87.80%. However, after screening the returned questionnaires, 24 were found to be incomplete or improperly filled out. Consequently, these were discarded, leaving 156 valid questionnaires for the final analysis, which constitutes a valid response rate of 76.10% from the initially distributed total.

3.5 Descriptive Statistics

Table 1 shows the descriptive statistics of the observed variables. The findings show that the consumer goods companies in Nigeria are characterized by the overall high degree of involvement in the management strategy practice in their digital transformation efforts. Process optimization was followed by results measurement and key performance indicators (KPIs) (M = 6.11, SD = 1.09

and M = 6.02, SD = 1.15). Team structure and development were the highest and the lowest mean scores, that is M = 5.50, SD = 2.24, respectively. These results imply that companies are more concerned with efficiency in the execution and performance monitoring than the architectural set-ups.

Table 1: Descriptive Statistics of Management Strategy Dimensions

Construct	Mean	Std. Deviation
Team Structure & Development (TSD)	5.50	2.24
Process Optimisation (PO)	6.11	1.09
Results Measurement & KPIs (RM & KPIs)	6.02	1.15

Source: Field Survey, 2025 (SPSS Output)

Correlation Analysis

Table 2 (correlation matrix) indicates that there are positive relationships between the management strategy dimensions and internationalised business expansion (IBE). The closest relationship has been noted between process optimisation and results measurement and KPIs (r = 0.939) meaning a very strong relationship exists between the effectiveness of the execution and the performance monitoring. Positive relationships were observed between internationalised business expansion and process optimisation (r = 0.390) and results measurement and KPIs (r = 0.335). However, with team structure and development, the relationship was weak (r = 0.137). These findings confirm the theoretical anticipation of interrelationships between dimensions of management strategies and the reason why pathways of covariance should be included in structural mode

Table 2: Correlation Matrix

Relationship	Correlation (r)
TSD ↔ PO	0.640
PO ↔ RM & KPIs	0.939
TSD ↔ RM & KPIs	0.677
IBE ↔ TSD	0.137
IBE ↔ PO	0.390
IBE ↔ RM & KPIs	0.335

Source: Field Survey, 2025 (SPSS Output)

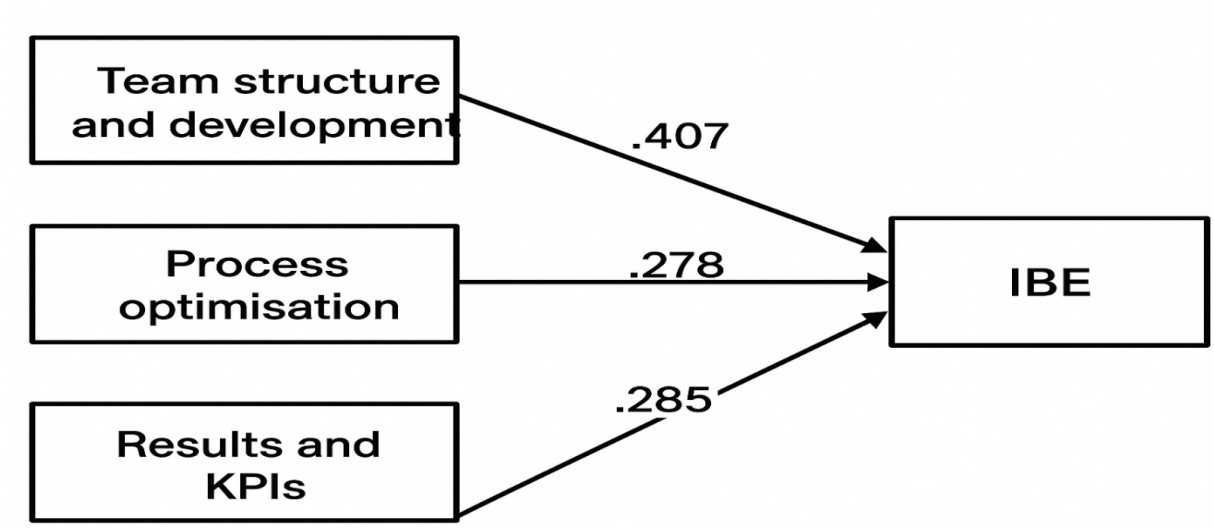


Figure 1: The structural model

Source: Field Survey: 2025 AMOS Output

To test how management strategy dimensions influence the internationalised business expansion, maximum likelihood estimation in AMOS was used to estimate the structural model. Table 3 shows the results of the structural path analysis

Table 3: Structural Path Estimates – Management Strategy → IBE

Path	Standardised Coefficient (β)	C.R.	p-value	R^2	Decision
TSD → IBE	0.407	1.539	0.124	0.509	Not Significant
PO → IBE	0.278	3.779	0.000		Significant
RM & KPIs → IBE	0.285	3.285	0.001		Significant

Source: Field Survey, 2025 (AMOS Output)

The findings reveal that the effect of process optimisation on the internationalised business expansion is positive and statistically significant (b = 0.278, t =3.779, p < 0.001). On the same note, results measurement and KPIs have a positive and substantial impact on IBE (b = 0.285, t = 3.285, p = 0.001). The results indicate that companies that have effective processes and have developed strong performance measurement systems, have higher chances of succeeding in international expansion. Despite the fact that the team structure and development had the highest standardised coefficient (t = 1.539, p = 0.124), the influence was not statistically significant (b = 0.407), which means that the team-related strategies do not directly influence international expansion.

The structural model explained 50.9 per cent of the variance in internationalised

business expansion (R^2 = 0.509), meaning that the combination of management strategy dimensions with team structure and development, process optimisation, and results measurement and KPIs explain the results of international growth of firms to a significant degree. This implies that performance and performance-driven managerial practices are the determinants of international expansion in digitally transforming companies.

In general, the results indicate that management strategy has a substantial impact on the internationalised business growth, process optimisation and results measurement and KPIs are the most robust, not to mention the strongest predictors. The strong relationships between management strategy dimensions also suggest that the practices are a coordinated system of strategies. Nevertheless, execution-oriented strategies seem to have a more direct influence on the international expansion than the mere structural arrangements on digitally transforming firms.

3.6 Discussion of Findings

The study has analysed how the management strategy influences business expansion through internationalisation (IBE) with three main dimensions, including team structure and development (TSD), process optimisation (PO) and results measurement and KPIs (RM & KPIs). The results indicate that IBE is a dependent variable on the management strategy, but individual dimensions differ in strength.

Process optimisation was found to be the best predictor of international business expansion (b = 0.278, p < 0.001), which is to confirm the importance of streamlined workflows, digital integration, and operational efficiency as the best enablers of international business expansion. This is in line with the research done in the past that emphasises the role of agile and optimised processes in making organisations more responsive and minimising the risks involved in international operations (Teixeira et al., 2024; Liao et al., 2025; Rubio-Andres et al., 2024).

The positive and significant impact on IBE was also observed in results measurement and KPIs (b = 0.285, p = 0.001), meaning that companies that monitor the performance systematically and align digital efforts with strategic goals are more likely to succeed in international expansion. This observation is in line with the existing literature that highlights the importance of KPIs and real-time analytics in facilitating strategic decision making and accountability in international operations (Calderon-Monge & Ribeiro-Soriano, 2024; Mikalef and Parmiggiani, 2022).

Although it had a positive correlation with IBE (b = 0.407), team structure and development was insignificant (p = 0.124). This implies that structured team courses and capacity-building programs, as useful as they are, can be indirect factors in the international growth of digitally transforming companies. This finding aligns with the existing studies suggesting that structural arrangements can have an indirect impact, which elevates the results only in the event of being integrated with productive processes and performance control

(Giovanni et al., 2024; Correani et al., 2020).

The covariance and correlation tests also indicate that there are high interrelationships between the dimensions of management strategies, especially between process optimisation and results measurement (r = 0.939) and that the mannerism in which managerial practices are integrated to achieve internationalisation. These results indicate that management strategy is an integrated system, in which execution-oriented aspects are more directly associated with expansion performance than structural arrangements per se.

4.0 Conclusion and Recommendations

This study concludes that management strategy plays a critical role in facilitating international business growth among digitally transforming firms, particularly in emerging market contexts. Among the three dimensions examined, process optimisation emerged as the most influential factor, highlighting the importance of streamlined workflows and the digitalisation of cross-border operations. The results measurement and key performance indicators (KPIs) were also significantly contributing aspects, which indicates the importance of data-based decision-making and strategic performance alignment. Even though the effect of team structure and development was positive but not significant, the result implies that the organisational design and the capacity-building can have an impact indirectly via execution-oriented processes. On the whole, the findings show that it is the strategic use of managerial practices that can make successful international expansion rather than the implementation of digital technologies.

Based on these finding, the managers and policymakers are encouraged to focus on the optimisation of organisational processes by automating, using digital tools, and re-engineering operations in order to improve international responsiveness and coordination. The establishment of strong performance measurement systems through the design of KPIs based on the internationalisation goals and implementation of digital dashboards to monitor performance in real time and make decisions should also be developed by firms. Although team structure alone might not necessarily be a motivator of expansion, it should be combined with the execution processes in terms of developing appropriate skills and effective delegation. The integration of team development, process optimisation, and performance measurement is, therefore, a holistic approach that is necessary in maximising international expansion outcomes. In emerging markets like Nigeria, managers have to consider institutional, infrastructural, and competitive limitations further to make sure that digital competences are efficiently mediated by context-specific managerial approaches on their way to sustainable internationalisation.

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A CRITICAL EXAMINATION OF THE RIGHT TO VOTER EDUCATION AND SENSITIZATION UNDER THE ELECTRONIC ELECTORAL PROCESS IN NIGERIA

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Abstract
Nigeria's post-2023 electoral reforms introduced technological innovations such as the Bimodal Voter Accreditation System (BVAS) and electronic transmission of election results to enhance electoral integrity. However, the transition toward an electronic electoral process raises significant concerns regarding voter inclusion, particularly in a country characterized by literacy and digital literacy disparities. This article examines whether voter education and sensitization constitute an implied constitutional right within Nigeria's evolving electronic electoral framework. The study adopts a qualitative methodology combining doctrinal legal analysis with secondary empirical data derived from literacy statistics, INEC publications, and election observer reports. It analyses relevant constitutional provisions, the Electoral Act 2022, democratic theory, and international human rights standards relating to political participation. The study finds that neither the Constitution of the Federal Republic of Nigeria nor the Electoral Act 2022 expressly guarantees voter education as a justifiable right. Nevertheless, through purposive constitutional interpretation, the article argues that voter education may be regarded as an implied constitutional entitlement derived from the right to vote, access to information, and the principle of popular sovereignty. The paper concludes that the absence of institutionalized voter education within Nigeria's electronic electoral system risks deepening democratic exclusion and participatory inequality. It therefore recommends statutory reform, strengthened voter sensitization mechanisms, and the integration of digital civic literacy into Nigeria's electoral governance framework.

Keywords: voter education, electronic electoral process, implied constitutional rights, electoral governance, democratic participation

1. INTRODUCTION

The vitality of constitutional democracy depends not merely on the conduct of periodic elections but on the meaningful participation of citizens in the electoral process. Elections constitute the institutional mechanism through which popular sovereignty is expressed and governmental authority is legitimised. However, democratic participation presupposes informed choice. Where citizens lack adequate knowledge of electoral procedures, voting technologies, or their participatory rights, the legitimacy and inclusiveness of democratic governance become significantly weakened (Dahl, 1989; Habermas, 1996).

Nigeria's electoral system has undergone substantial transformation in recent years, particularly following the enactment of the Electoral Act 2022 and

the deployment of electronic electoral technologies such as the Bimodal Voter Accreditation System (BVAS) and electronic transmission of election results. These reforms were introduced to address persistent concerns relating to electoral fraud, over-voting, ballot manipulation, and result tampering (INEC, 2023). Although these innovations represent important steps toward electoral modernisation, their implementation has also generated significant constitutional and governance concerns regarding accessibility, inclusion, voter preparedness, and public trust in the electoral process. Furthermore, debates surrounding the implementation and scope of electronic transmission of election results, including controversies arising from legislative and institutional developments after the 2023 general elections, demonstrate that Nigeria's transition toward electronic electoral governance remains both politically and legally contested. Consequently, technological reform alone cannot guarantee democratic legitimacy without corresponding mechanisms for voter inclusion and civic preparedness.

As of 2026, Nigeria's estimated population stands at approximately 242.6 million. According to the National Bureau of Statistics (NBS, 2024), the country's literacy rate is estimated at approximately 69%, implying that about 31% of the population remains illiterate or functionally unlettered. Importantly, literacy levels are regionally uneven, with several northern states recording significantly lower literacy rates compared to many southern states. These disparities have profound implications for electoral participation within an increasingly digitised electoral system.

The challenge extends beyond traditional illiteracy to include digital illiteracy. Electronic electoral technologies such as BVAS, electronic accreditation systems, and digital result-viewing platforms require varying levels of technological familiarity and procedural understanding. In the absence of adequate voter education and sensitisation, technologically driven reforms may inadvertently deepen existing inequalities by disproportionately disadvantaging rural, poor, elderly, and digitally marginalised voters.

The central inquiry of this article is whether voter education constitutes an implied constitutional right within Nigeria's constitutional and democratic framework. Specifically, the study examines whether existing constitutional provisions and electoral laws impose an implied obligation on the state particularly the Independent National Electoral Commission (INEC) to ensure that citizens are adequately informed and empowered to participate meaningfully in the electoral process.

The study adopts a qualitative methodology combining doctrinal legal analysis with secondary empirical inquiry. The doctrinal component examines constitutional provisions, statutory frameworks, democratic theory, and relevant international human rights instruments relating to political participation and voter inclusion. The empirical dimension relies on secondary data obtained from the National Bureau of Statistics (NBS), UNESCO literacy

reports, INEC publications, and election observer reports concerning Nigeria's electronic electoral processes. This article argues that although Nigerian law does not expressly codify voter education as a fundamental or statutory right, a purposive and teleological interpretation of constitutional provisions relating to political participation, equality, democratic governance, and access to information supports the conclusion that voter education constitutes an implied constitutional entitlement. The article further contends that democratic participation within technologically mediated electoral systems cannot be meaningful where significant segments of the electorate lack the informational and digital capacity necessary to engage effectively with the electoral process.

2. Conceptual And Theoretical Framework

2.1 Conceptualising the "Right to Voter Education"

Voter education extends beyond merely informing citizens about election dates or voting procedures. It encompasses continuous civic and democratic engagement aimed at equipping citizens with the knowledge, skills, values, and capacity required for meaningful participation in the electoral process. It includes awareness of voter registration procedures, accreditation requirements, ballot casting, electoral technologies, electoral dispute mechanisms, democratic rights and responsibilities, as well as the ability to critically understand and engage electoral institutions and processes.

Within contemporary electoral governance, voter education also includes digital civic literacy particularly in jurisdictions where technological innovations such as biometric accreditation and electronic transmission of results form part of the electoral process. In this regard, voter education involves not only access to electoral information but also the practical capacity to understand and utilise electoral technologies effectively and independently. Traditionally, voter education has been treated as an administrative or policy responsibility of electoral management bodies, political parties, civil society organisations, and the media. However, in constitutional and democratic discourse, voter education may also be conceptualised as a democratic entitlement closely linked to the effective enjoyment of political participation rights.

International human rights law increasingly recognises that political participation involves more than the formal right to cast a vote. Article 25 of the International Covenant on Civil and Political Rights (ICCPR) guarantees citizens the right and opportunity to participate in public affairs and vote in genuine periodic elections. The United Nations Human Rights Committee, in General Comment No. 25 (1996), further emphasises that states are under a positive obligation to adopt measures that enable citizens to exercise electoral rights effectively.

Accordingly, voter education may be understood as an enabling or facilitative right that gives practical meaning to the broader right to political participation. Without adequate voter sensitization,

particularly within technologically mediated electoral systems, the exercise of voting rights may become merely formal rather than substantive. Citizens who lack sufficient understanding of electoral procedures or technologies may experience indirect exclusion from democratic participation despite possessing formal voting rights.

2.2 Democratic Participation Theory

Democratic participation theory underscores the relationship between informed citizenship and democratic legitimacy. Democratic governance presupposes not only electoral participation but also the capacity of citizens to participate meaningfully and independently in political processes. Dahl's (1989) theory of polyarchy argues that democracy requires effective participation, enlightened understanding, and political equality. Citizens must possess adequate opportunities to formulate preferences, understand political processes, and participate on relatively equal terms. This necessarily presupposes informational access and civic awareness.

Similarly, Habermas (1996) contends that democratic legitimacy derives from communicative participation among informed citizens. Democratic institutions function effectively only where citizens possess sufficient knowledge to engage electoral and governance processes rationally and meaningfully. In contexts characterised by procedural complexity or technological electoral systems, lack of voter education may weaken participatory equality and democratic legitimacy.

Applied to Nigeria's evolving electronic electoral process, democratic participation theory suggests that technological reforms must be accompanied by corresponding informational and civic empowerment. Electronic accreditation systems, biometric verification technologies, and digital result transmission mechanisms require varying levels of procedural understanding and digital literacy. In the absence of adequate voter education, technological innovation may unintentionally deepen existing inequalities between literate and illiterate citizens, urban and rural populations, and digitally connected and digitally marginalised voters. Thus, democratic participation theory provides a normative basis for arguing that voter education is not merely an administrative convenience but an essential component of inclusive democratic governance.

2.3 Implied Constitutional Rights Doctrine

Constitutional jurisprudence recognises that not all constitutionally protected rights are expressly enumerated within constitutional texts. Courts across jurisdictions have frequently adopted purposive and liberal interpretative approaches to identify implied rights necessary for the effective enjoyment of express constitutional guarantees. The doctrine of implied constitutional rights operates on the principle that where a constitution guarantees a substantive right, it also protects conditions necessary for the meaningful exercise of that right (Ely, 1980). Consequently, rights may be inferred where their recognition is indispensable to the

realization of constitutional democracy, equality, or participatory governance.

Under the Constitution of the Federal Republic of Nigeria 1999 (as amended), Section 14(2)(a) provides that sovereignty belongs to the people, while Sections 39 and 40 guarantee freedom of expression, access to information, assembly, and association. Section 42 further guarantees equality and freedom from discrimination. Although the Constitution does not expressly provide for a "right to voter education," these provisions, when read together with electoral and democratic objectives under Chapter II, may support a purposive interpretation that meaningful political participation necessarily requires access to voter education and sensitisation.

This argument becomes particularly compelling within the context of electronic electoral processes. Where electoral participation increasingly depends upon technological understanding and procedural literacy, the absence of voter education may substantially impair citizens' ability to exercise voting rights effectively. In such circumstances, voter education may reasonably be construed as constitutionally incidental to the effective enjoyment of political participation rights. Furthermore, Nigerian courts have historically adopted broad and purposive approaches in constitutional interpretation, particularly where democratic values and constitutional objectives are implicated. Therefore, although voter education is not expressly codified as a constitutional right, the structural logic of participatory democracy, political equality, and popular sovereignty may support its recognition as an implied constitutional entitlement within Nigeria's democratic framework.

3. The Electronic Electoral Process In Nigeria

3.1 Evolution of Electoral Digitisation

Nigeria's electoral system has evolved through persistent institutional and operational challenges, including ballot snatching, over-voting, result manipulation, voter intimidation, and logistical inefficiencies (Omotola, 2010; Jega, 2017). In response to these recurring problems, successive reforms have sought to enhance electoral credibility, transparency, and efficiency. A major milestone in this reform trajectory is the Electoral Act 2022, which provides the statutory basis for the introduction of technological innovations in election administration, particularly electronic accreditation and result management systems. Contrary to earlier manual processes, the 2022 framework formally accommodates electronic components in election logistics and transmission architecture, subject to the discretion and regulations of the Independent National Electoral Commission (INEC).

Accordingly, INEC introduced the Bimodal Voter Accreditation System (BVAS), which utilizes fingerprint and facial recognition technology for voter authentication. The Commission also operationalized the INEC Result Viewing Portal (IREV) for real-time public viewing of polling unit results, while Section 60(5) of the Electoral Act 2022 provides for the electronic transmission of results where practicable. However, it

is important to note that the implementation of electronic transmission remains legally and politically contested. Following the 2023 general elections, legislative debates within the National Assembly and institutional interpretations of Section 60(5) generated uncertainty regarding the mandatory or discretionary nature of electronic result transmission. This ongoing contestation highlights that Nigeria's electoral digitisation remains a developing and institutionally negotiated process rather than a fully settled legal regime.

In comparative terms, the shift toward digital electoral governance reflects global trends aimed at improving transparency and reducing human interference. Nevertheless, such technological reforms also introduce new layers of procedural complexity that require adequate voter preparedness and system comprehension to ensure inclusivity.

3.2 Technological Reform and Voter Vulnerability

Electronic electoral systems such as BVAS and digital result platforms like IREV require voters to interact with procedures that are significantly more complex than traditional paper-based voting systems. This creates new categories of vulnerability, particularly among illiterate, semi-literate, elderly, rural, and digitally excluded voters.

These challenges include difficulties in:

1. Understanding biometric accreditation procedures;
2. Identifying and responding to system malfunctions;
3. Distinguishing between official assistance and undue influence; and
4. Interpreting electronic result transmission and verification processes.

It is important to clarify that Nigeria's literacy rate is not uniform across regions. While national estimates place functional literacy at approximately 69% (NBS, 2024), substantial disparities exist, with several northern states including Kano and others recording significantly lower literacy levels compared to southern regions. This means that national averages conceal deep regional inequalities in educational attainment and civic capacity. Therefore, the challenge is not only illiteracy in the traditional sense but also digital illiteracy, which affects citizens' ability to effectively engage with technology-driven electoral systems.

As Norris (2014) argues, electoral modernisation without corresponding civic capacity development risks producing a democratic gap between formal access and substantive participation. In this context, voter education becomes an essential corrective mechanism to prevent informational exclusion in technologically mediated elections.

4. Statutory Framework: The Electoral Act 2022

4.1 Does the Electoral Act Recognizes a Right to Voter Education?

A close doctrinal reading of the Electoral Act 2022 reveals that while it provides comprehensive provisions on voter registration, political party regulation,

election offences, and result management, it does not expressly recognise voter education as a justiciable right. INEC derives its authority under Section 153 of the 1999 Constitution (as amended) and the Third Schedule, which empowers it to organise, undertake, and supervise elections. Within this mandate, voter sensitisation is conducted as part of administrative and operational functions.

However, a critical distinction must be made between: Administrative voter education (policy-based discretion), and Legally enforceable voter education (rights-based entitlement). Currently, voter education in Nigeria falls within the first category. It is implemented through civic outreach programmes, media campaigns, and stakeholder engagements, but without statutory language that creates enforceable obligations or rights for citizens. This creates what may be described as a normative gap in electoral governance: voter education exists in practice but lacks formal legal entrenchment, limiting accountability and judicial enforceability.

4.2 International Legal Standards and Nigeria's Obligations

Nigeria is a state party to key international and regional instruments that expand the meaning of political participation beyond mere formal voting rights.

Under Article 25 of the International Covenant on Civil and Political Rights (ICCPR), citizens have the right to take part in public affairs and to vote in genuine elections. The United Nations Human Rights Committee, in General Comment No. 25 (1996), further clarifies that states are required to adopt positive measures to ensure that citizens can effectively exercise their political rights, including access to necessary electoral information.

Similarly, Article 13 of the African Charter on Human and Peoples' Rights guarantees the right of citizens to participate freely in government. The African Commission has consistently interpreted this provision to include practical conditions necessary for meaningful participation, including civic awareness and access to electoral information. While these instruments do not explicitly use the term "voter education," they collectively support a broader normative framework in which informational empowerment is integral to effective political participation. Therefore, even in the absence of explicit domestic codification, Nigeria's international obligations reinforce the argument that voter education is a necessary condition for the meaningful exercise of electoral rights in a democratic society.

5.1 Administrative Practice versus Legal Obligation

The Independent National Electoral Commission (INEC) currently undertakes voter sensitisation through media campaigns, stakeholder engagements, community outreach programmes, and partnerships with civil society organisations. These activities, although recurrent, are largely operational and administrative in nature, deriving from institutional practice and discretionary policy choices rather than from any explicitly codified constitutional or statutory duty to provide voter education as a right.

The critical legal question, therefore, is whether INEC bears an enforceable public law obligation to ensure voter education, particularly within the context of increasingly complex electronic electoral systems. Under established public law theory, administrative agencies possess not only express powers but also implied incidental powers necessary to give effect to their statutory mandate (Craig, 2016). INEC's constitutional responsibility under Section 153 and Paragraph 15 of the Third Schedule to the 1999 Constitution (as amended) is to organise, undertake, and supervise elections in Nigeria. The effectiveness of this mandate presupposes meaningful participation by the electorate. However, whether "meaningful participation" legally extends to a duty to provide structured voter education remains uncertain in Nigerian jurisprudence, as courts have not directly pronounced on this issue.

This doctrinal silence creates an important governance gap: voter education is practically recognised but not legally enforceable.

5.2 Constitutional Interpretation and Democratic Necessity

A purposive interpretation of Section 14(2)(a) of the 1999 Constitution, which declares that sovereignty belongs to the people, suggests that democratic participation must be substantive rather than merely formal. Where citizens lack adequate knowledge of electoral procedures—especially within technologically mediated voting environments—the exercise of sovereignty becomes functionally constrained. Furthermore, Section 42 of the Constitution, which prohibits discrimination, raises important questions regarding indirect exclusion. If electoral technologies disproportionately disadvantage citizens with limited literacy or digital competence, and no compensatory educational framework exists, such exclusion may amount to structural inequality in political participation.

Comparative constitutional jurisprudence supports a more expansive reading of political rights. For instance, the Constitutional Court of South Africa has consistently interpreted political rights in a manner that promotes substantive inclusion and accessibility, particularly where procedural barriers threaten democratic equality (Klare, 1998). Accordingly, while Nigeria's constitutional framework does not expressly impose a duty to provide voter education, a teleological reading of democratic provisions suggests an emerging normative expectation of informational facilitation in electoral governance.

6. Constitutional Silence and Democratic Exclusion

The absence of explicit constitutional or statutory recognition of voter education generates significant governance implications for Nigeria's democratic process. In the first instance, it weakens institutional accountability because, without a clearly defined legal obligation, INEC cannot easily be compelled through judicial or administrative mechanisms to provide standardised, measurable, and inclusive voter education across diverse demographic groups. The absence of enforceable legal

standards allows voter sensitisation initiatives to remain largely discretionary and unevenly implemented.

Furthermore, the lack of institutionalised voter education contributes to structural and digital inequality within the electoral system. In technologically mediated elections, citizens with limited literacy or digital competence may become dependent on third parties for assistance during accreditation, voting, or interpretation of electoral procedures. Such dependence increases vulnerability to misinformation, undue influence, coercion, and the possible compromise of ballot secrecy and electoral autonomy. The challenge is particularly pronounced among rural populations, elderly voters, and economically disadvantaged groups who may lack both formal education and technological familiarity.

The absence of robust voter education frameworks also poses broader concerns for democratic legitimacy. Elections may satisfy procedural and technological requirements while still failing to achieve substantive democratic inclusiveness if significant segments of the electorate are inadequately prepared to engage with electronic electoral systems. As Sen (1999) argues, development should be understood as the expansion of substantive freedoms and capabilities. Consequently, technological modernisation without corresponding enhancement of citizens' informational and participatory capacities may reproduce or even deepen existing social inequalities.

7. Empirical Context: Literacy, Electoral Participation, And Digital Transition

7.1 Literacy Statistics and Electoral Demography in Nigeria

Nigeria presents a complex empirical environment for electoral governance. According to the National Bureau of Statistics (NBS, 2024) and UNESCO Institute for Statistics (2023), Nigeria's adult literacy rate is estimated at approximately 69%, implying that about 31% of adults are functionally illiterate or possess limited literacy skills. This translates into a substantial population segment—estimated at over 60–70 million citizens—who may face difficulties engaging with information-intensive governance systems. However, this national average masks significant regional disparities. Northern Nigeria, including states such as Kano, consistently records lower literacy rates than southern regions, reflecting longstanding educational inequality (NBS, 2024). Therefore, the distribution of literacy is not uniform, and electoral vulnerability is correspondingly spatially differentiated.

When aligned with electoral statistics, INEC (2023) reports over 93 million registered voters in the 2023 general elections. While literacy data is not disaggregated within the voter register, the proportional overlap suggests that a significant segment of voters may experience challenges interacting with increasingly digital electoral systems. The empirical implication is clear: Nigeria's electoral modernization is occurring within a context of uneven civic capability distribution, thereby intensifying concerns about inclusion and electoral equality.

7.2 Digital Electoral Infrastructure and Voter Preparedness

The 2023 general elections represented a major milestone in Nigeria's electoral digitisation, particularly through the deployment of the Bimodal Voter Accreditation System (BVAS) and the INEC Result Viewing Portal (IReV), designed for electronic transmission and public viewing of election results (INEC, 2023). However, empirical election observation reports by Yiaga Africa (2023) and the Centre for Democracy and Development (CDD, 2023) documented significant voter unfamiliarity with BVAS procedures, particularly at polling unit level. In many instances, voters relied heavily on polling officials or party agents for procedural guidance.

Although electoral law permits assistance for persons with disabilities and other vulnerable voters, systemic dependence arising from lack of voter information raises distinct concerns about autonomy and informed participation. Importantly, digital literacy must be distinguished from basic literacy. As van Dijk (2020) argues, access to technology does not automatically translate into effective usage capacity. Even literate voters may lack familiarity with biometric authentication processes, electronic result transmission systems, or digital verification platforms.

Accordingly, Nigeria's electoral challenge is best understood as a dual-layered exclusion problem: traditional literacy inequality and emerging digital literacy inequality.

8. INSTITUTIONAL GAPS IN THE VOTER EDUCATION FRAMEWORK

8.1 Absence of Legal Codification

Despite INEC's ongoing voter sensitisation efforts through media campaigns, civic engagements, and public outreach, there is currently no binding statutory framework that defines voter education as an enforceable right or imposes minimum standards for its implementation. A doctrinal review of the Electoral Act 2022 shows that while it regulates voter registration, accreditation procedures, political party conduct, and election administration, it does not:

1. Define voter education as a legal entitlement
2. Establish minimum national standards for voter sensitisation
3. Create a dedicated institutional framework for civic or electoral literacy
4. Provide enforceable accountability mechanisms for voter information dissemination

This creates a clear institutional gap between electoral administration and voter capability development.

From a governance perspective, institutional theory suggests that rights or public functions not embedded in formal legal architecture tend to suffer from inconsistency, uneven implementation, and funding uncertainty (Peters, 2019). Consequently, voter education in Nigeria remains episodic rather than systemic, often intensifying only during election cycles.

8.2 Budgetary and Structural Limitations

INEC's budgetary allocation is predominantly directed toward logistics,

procurement of sensitive electoral materials, technology deployment, personnel training, and general election administration. Although voter sensitisation activities form part of the Commission's operational responsibilities, such activities are not ordinarily structured as ring-fenced, rights-based expenditure items accompanied by enforceable performance benchmarks or long-term implementation frameworks. Consequently, voter education programmes often depend on administrative discretion, available funding, and election-cycle priorities.

In addition, Nigeria presently lacks a permanent and institutionalised civic education framework specifically dedicated to electoral literacy and democratic participation. Comparative evidence from more established democracies demonstrates that voter education is frequently embedded within structured civic education institutions or supported through sustained collaboration among electoral commissions, political parties, civil society organisations, educational institutions, and the media, rather than treated merely as an auxiliary responsibility of election management bodies (Norris, 2014). In many democratic systems, political parties also play a central role in political mobilisation, voter awareness, and democratic socialisation, particularly during electoral transitions involving new voting technologies.

The practical implication of Nigeria's current institutional arrangement is that voter education tends to be reactive, unevenly implemented, and largely concentrated around election periods. Such an approach limits the capacity of electoral institutions and democratic stakeholders to address long-standing literacy deficits, digital competency gaps, and informational inequalities within the electorate. As a result, technologically driven electoral reforms may advance more rapidly than the civic preparedness required for inclusive and meaningful democratic participation.

9. Voter Education as an Implied Constitutional Right

9.1 Doctrinal Foundation: Implied Rights in Constitutional Law

Contemporary constitutional jurisprudence recognises that constitutional rights are not always exhaustively enumerated within written texts. Courts in both comparative and domestic settings have, in appropriate circumstances, inferred implied rights where such recognition is necessary to give practical effect to express constitutional guarantees. This interpretive approach is grounded in purposive and teleological constitutionalism and is reflected in the doctrine of implied rights (Barak, 2006).

Within the Nigerian constitutional framework, several provisions provide the normative basis for such implication. Section 39 of the 1999 Constitution (as amended) guarantees freedom of expression, which has been judicially and doctrinally extended to include the right to receive and disseminate information. Section 22 further imposes a constitutional responsibility on the media to uphold accountability and transparency in governance. In addition, Section 14(2)(a) establishes that

sovereignty belongs to the people, thereby locating democratic authority in citizen participation.

When these provisions are read holistically, they suggest that democratic sovereignty presupposes informed citizenship, particularly in relation to electoral participation. The right to vote under Section 77, although procedurally framed, implicitly assumes that citizens possess sufficient information to meaningfully exercise that right. From this perspective, voter education may be conceptualised not as an ancillary administrative function, but as a necessary enabling condition for the effective enjoyment of constitutional political rights. Accordingly, an electoral process that is technologically sophisticated but informationally inaccessible risks undermining the substantive content of suffrage, rendering participation formal rather than meaningful.

9.2 Democracy Theory and Informational Equality

Democratic theory further reinforces the normative foundation for recognising voter education as an implied constitutional necessity. Dahl's theory of polyarchy (1989) emphasises that effective democratic participation requires not only formal equality but also practical opportunities for citizens to understand and engage with political processes. This includes access to relevant information, clarity of procedures, and equal capacity to make informed electoral choices.

Where significant segments of the electorate lack literacy or digital competence, a condition of informational asymmetry emerges, undermining the equality of participation upon which democratic legitimacy depends.

Habermas (1996), through his theory of deliberative democracy, similarly argues that legitimate democratic outcomes depend on communicative processes grounded in rational and informed participation. Applied to electoral governance, communicative competence entails understanding electoral procedures, voting technologies, and result collation mechanisms. In technologically mediated electoral systems such as Nigeria's BVAS and electronic result transmission architecture, the absence of structured voter education intensifies participatory inequality. Consequently, voter education becomes not merely administrative facilitation but a constitutive requirement of democratic legitimacy.

9.3 Institutional Trust, Perception, and Electoral Legitimacy

Beyond normative theory, institutional trust literature also provides an important explanatory dimension. Kirchler et al. (2008) argue that trust in public institutions is shaped by perceptions of transparency, authority, and procedural fairness. In electoral contexts, where technological systems mediate voting and result transmission, citizens' understanding of such systems becomes crucial to sustaining confidence in electoral outcomes. Where voters lack adequate information, technical glitches or procedural delays may be misinterpreted as manipulation or fraud, even in the absence of misconduct. This perception gap has significant implications for electoral legitimacy and

compliance behaviour, as trust erosion may occur independently of actual system integrity. Accordingly, voter education functions not only as a rights-enhancing mechanism but also as a preventive safeguard against institutional distrust and electoral misinformation.

10. Comparative Perspectives

Comparative electoral governance demonstrates that voter education is widely recognized as an integral component of democratic consolidation, particularly in technologically evolving electoral systems. In South Africa, the Electoral Commission Act explicitly mandates the Electoral Commission to promote voter education and civic awareness as part of its statutory responsibilities. This institutionalization ensures continuity, accountability, and nationwide coverage of civic literacy programmes. Similarly, in India, the Election Commission implements the Systematic Voters' Education and Electoral Participation (SVEEP) programme, which integrates civic education into electoral cycles through sustained outreach, digital campaigns, and grassroots engagement.

These comparative experiences indicate that electoral modernization is typically accompanied by institutionalised voter education frameworks, particularly where technological complexity increases. In contrast, Nigeria's electoral framework places greater emphasis on technological reform and administrative innovation, without equivalent statutory entrenchment of voter education as a structured and enforceable obligation. This divergence highlights a critical governance imbalance between electoral technology and civic capacity development.

11. Findings of the Study

The combined doctrinal and empirical analysis undertaken in this study reveals that Nigeria has significantly modernised its electoral system through the introduction of the Bimodal Voter Accreditation System (BVAS) and the framework for electronic transmission of election results under the Electoral Act 2022. However, available national data from the National Bureau of Statistics (2024) and UNESCO (2023) indicate that approximately 31% of the population remains functionally illiterate, with additional layers of digital literacy deficits, particularly among rural and socio-economically disadvantaged populations. The study further finds that neither the Constitution of the Federal Republic of Nigeria 1999 (as amended) nor the Electoral Act 2022 expressly recognises voter education as a justiciable constitutional right or statutory entitlement. Although the Independent National Electoral Commission (INEC) engages in voter sensitisation and civic awareness programmes, such activities remain largely administrative and discretionary, lacking enforceable legal obligations, institutional permanence, or measurable performance standards. The study additionally demonstrates that democratic theory, comparative constitutional practice, and international human rights standards support the position that meaningful political participation in technologically mediated electoral systems requires not merely formal suffrage but also substantive informational and civic empowerment.

Collectively, these findings support the central argument of this article that voter education may properly be regarded as an implied constitutional requirement necessary for the effective and meaningful exercise of the right to vote within Nigeria's evolving electronic electoral framework.

12. Reform Proposals: Constitutionalizing and Institutionalization of Voter Education

In light of the doctrinal, theoretical, and empirical findings of this study, there is a compelling need for constitutional, statutory, and institutional reforms aimed at strengthening voter education within Nigeria's evolving electronic electoral framework. A major recommendation of this article is the explicit constitutional recognition of voter education as a justiciable democratic right. This may be achieved through an amendment to Chapter IV of the Constitution of the Federal Republic of Nigeria (1999, as amended) to provide that every eligible citizen shall have the right to accessible, adequate, and continuous voter education necessary for informed participation in the electoral process. Such constitutional entrenchment would transform voter education from a discretionary administrative activity into a legally enforceable entitlement, thereby imposing a positive obligation on the state to design inclusive and sustained voter education programmes. It would also enhance democratic inclusion by requiring targeted interventions for vulnerable groups, including rural populations, persons with limited literacy, elderly voters, and digitally marginalised citizens. Comparative constitutional practice demonstrates that democratic consolidation is often strengthened through the formal recognition of participatory and enabling rights (Barak, 2006; Klug, 2010), and constitutionalising voter education would align Nigeria with emerging global democratic standards.

Beyond constitutional reform, the Electoral Act 2022 should be amended to operationalise voter education as a statutory obligation within Nigeria's electoral governance framework. Such amendments should clearly define voter education as a legal duty of electoral institutions, establish minimum standards for voter sensitisation programmes, mandate multilingual and accessible dissemination of electoral information, integrate digital literacy components into electronic electoral processes, and provide measurable indicators for monitoring and evaluating voter education initiatives. These reforms would strengthen institutional accountability and create a clearer legal basis for assessing the adequacy of voter education efforts within technologically mediated elections.

The study also recognises that voter education should not be viewed as the exclusive responsibility of INEC alone. In many democratic systems, political parties play a central role in political socialisation, civic mobilisation, and voter awareness. Consequently, a more collaborative framework involving INEC, political parties, civil society organisations, educational institutions, community leaders, and the media is necessary to ensure wider civic inclusion and democratic literacy. Rather than creating an entirely separate electoral bureaucracy, institutional reforms should

focus on strengthening coordination among these stakeholders while enhancing the capacity of existing civic education structures.

Furthermore, Nigeria's transition toward electronic electoral governance requires the integration of digital civic literacy into voter sensitisation programmes. Voter education initiatives should therefore include practical demonstrations of BVAS usage, community-based simulation exercises, simplified audiovisual materials for illiterate voters, local language guides, and mobile sensitisation campaigns targeted at rural communities. As van Dijk (2020) argues, digital inclusion requires not merely access to technology but also the skills and capacity to use such technology effectively. Consequently, electronic electoral reforms must be accompanied by sustained investments in digital voter literacy to prevent technological innovation from reinforcing existing social inequalities.

The study additionally emphasises the importance of voter education in strengthening public trust and democratic legitimacy. Institutional trust literature suggests that confidence in electoral processes is significantly enhanced where citizens understand electoral procedures and technological systems. Effective voter education can therefore reduce misinformation, minimise suspicion during technological failures, improve perceptions of transparency and fairness, and strengthen post-election legitimacy. In this regard, voter education functions not only as a democratic entitlement but also as an important instrument for promoting institutional trust, electoral stability, and participatory democracy within Nigeria's evolving digital electoral environment.

13. Conclusion

This study critically examined the right to voter education and sensitization under Nigeria's evolving electronic electoral framework. Through a combined doctrinal and empirical analysis, it established that although Nigeria has undertaken significant technological reforms in its electoral system since 2023, the legal architecture does not expressly recognize voter education as a fundamental or statutory right. Given Nigeria's demographic realities including approximately 31% illiteracy and substantial digital literacy gaps the absence of enforceable voter education protections creates structural inequality within electoral participation. Democratic theory, constitutional interpretation principles, and comparative practice support the conclusion that voter education is an implied constitutional right derived from: the right to vote, the right to receive information, The sovereignty of the people principle, and the broader architecture of participatory democracy.

Without voter education, electoral participation risks becoming formal rather than substantive. Electronic innovation, though commendable, must not outpace citizen preparedness. Accordingly, this article recommends constitutional entrenchment of voter education, statutory codification within the Electoral Act, establishment of a dedicated voter education commission, and integration of digital literacy programs into electoral governance.

Ultimately, the legitimacy of democracy lies not merely in technological sophistication but in informed citizen participation.

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FILMMAKING, YOUTH LIVELIHOODS, AND THE POLITICAL ECONOMY OF KANNYWOOD IN NORTHERN NIGERIA

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Abstract

This paper examines the intersection of filmmaking, youth livelihoods, and the political economy of Kannywood, the Hausa-language film industry in Kano, Northern Nigeria. Although culturally significant, Kannywood has received limited scholarly attention as a site of socio-economic opportunity. In response to persistent youth unemployment, the paper explores how the industry functions as an informal arena of work, identity formation, and social mobility for young people excluded from formal labor markets. Guided by the Political Economy of Culture (PEC) and the Sustainable Livelihoods Approach (SLA), the analysis examines how power relations, moral regulation, and informal networks shape creative labor. Using a qualitative design, the study draws on semi-structured interviews, participant observation, documentary analysis, and an embedded case study of youth livelihoods in Kano. Findings reveal that while Kannywood generates employment and skills, it remains characterized by informality, gender inequality, and restrictive censorship. The paper concludes that the industry embodies both opportunity and precarity, holding untapped potential for inclusive development. Policy recommendations include strengthening institutional frameworks, improving access to finance, and reforming censorship to position creative industries as drivers of youth empowerment.

***Keywords*:** Kannywood, youth livelihoods, filmkmaking, creative economy, Northern Nigeria

1.0 Introduction

Nigeria's demographic profile, with more than 60% of its population under the age of 25, underscores the urgency of addressing youth unemployment and underemployment (National Bureau of Statistics, 2023; World Bank, 2024). Many young Nigerians experience "waithood," a prolonged transitional stage between dependence and secure adulthood (Honwana, 2022). In Northern Nigeria, this condition is intensified by educational disadvantages, limited access to formal employment, and structural economic decline, pushing youth toward informal livelihood strategies.

Within this context, creative industries have emerged as alternative spaces for economic participation. While

Nollywood's growth has been extensively documented (Haynes, 2016; Krings & Okome, 2023), Kannywood — the Hausa-language film industry based in Kano — remains underexplored despite its cultural and economic significance. Kannywood provides employment, skills acquisition, and social visibility for thousands of young people, functioning as both a site of cultural production and an informal labor market (Adamu, 2019).

However, the opportunity structure within Kannywood is fragile. It is shaped by informal financing, restrictive censorship, and moral regulation influenced by Sharia law (Larkin, 2008; Yakubu, 2023). These dynamics situate Kannywood within a broader political economy of culture, where religious authority, state regulation, and patronage networks determine access to resources, creative expression, and livelihood outcomes. For youth, participation in Kannywood represents both empowerment and precarity: it offers income, skills, and symbolic capital, yet exposes them to irregular pay, piracy, and gendered exclusion.

This paper therefore foregrounds the intersection of Kannywood, political economy, and youth livelihoods to examine how cultural industries function as both sites of opportunity and structural constraint. Specifically, it aims to (1) analyze how Kannywood generates and restricts youth livelihood opportunities, (2) explore the political-economic forces including censorship, religious regulation, and informal capital flows that shape creative labour, and (3) assess the implications for inclusive development in Northern Nigeria. By situating Kannywood within debates on youth agency and precarity, the study contributes to a more nuanced understanding of creative economies as both engines of aspiration and arenas of vulnerability.

2.0 Literature Review

Youth Employment and Livelihood Strategies

Scholarship on African youth employment increasingly emphasizes agency, portraying young people as innovators navigating structural uncertainty (Resnick & Thurlow, 2022; Oosterom, 2023). While this perspective challenges earlier depictions of youth as passive victims, it risks romanticizing precarious realities. Honwana's (2022) concept of "waithood" captures the prolonged liminality between dependence and adulthood, yet it does not fully explain how creative sectors mediate this condition. Much of the literature celebrates youth entrepreneurship but neglects the structural violence that makes such entrepreneurship a necessity rather than a choice.

Informality accounts for more than 80% of new jobs in Sub-Saharan Africa (International Labour Organization [ILO], 2022). While creative industries are often framed as adaptive livelihood strategies (De Beukelaer, 2022), this framing can obscure exploitation and the absence of state protection. The distinction between survivalist hustling and organized informal entrepreneurship remains underexplored, particularly in

Northern Nigeria. This gap underscores the need to examine how creative economies like Kannywood both enable mobility and reproduce precarity.

Nollywood, Kannywood, and the Creative Economy

Nollywood scholarship has matured, moving from celebratory accounts of grassroots entrepreneurship to critical analyses of informal capitalism, digital transformation and diaspora markets (Haynes, 2016; Krings & Okome, 2023; Adejunmobi, 2024). However, this Nollywood-centric focus reproduces Nigeria's internal cultural hierarchies, privileging southern expressions while marginalizing northern industries. When Kannywood is discussed, it is often framed through religious controversy or moral panic rather than as a legitimate site of creative labor (Adamu, 2019; Balogun, 2022).

This marginalization reflects both intellectual and political biases. Adamu's (2019) work on transnational Hausa video films highlights cultural circulation but pays limited attention to material conditions of production. Thus, Kannywood remains peripheral in global film studies and Nigerian cultural scholarship. Addressing this gap requires a political economy approach that situates Kannywood as a site of production, labor relations and livelihood strategies, not merely cultural texts.

Political Economy of Cultural Production

The political economy of culture tradition (Hesmondhalgh, 2019; Mosco, 2021) provides tools for analyzing how cultural production is shaped by power and capital. Yet these frameworks, developed in Western contexts, assume institutional structures welfare states, intellectual property regimes, formal labour markets that do not apply in Northern Nigeria. Applying them uncritically risks deficit comparisons.

More relevant are approaches that foreground culture as both commodity and moral domain. Larkin's (2008) work on media infrastructure in Northern Nigeria demonstrates how technology, religion and politics intersect in shaping cultural circulation. Building on this, scholars such as Yakubu (2023) and Balogun (2022) show how Sharia law and censorship boards regulate not only content but also access to creative work. Thus, Kannywood's political economy is defined by fragmented networks of patronage, religious authority and informal capital flows, which collectively determine youth livelihood opportunities.

Livelihoods and Precarity in Creative Work

The Sustainable Livelihoods Approach (Scoones, 1998; De Haan & Zoomers, 2021) emphasizes how individuals mobilize assets such as human, social and financial to navigate vulnerability. However, its descriptive focus requires adaptation for urban creative economies. In Kannywood, apprenticeship networks (social capital) substitute for formal training institutions, but reliance on patronage reproduces inequality. Standing's (2023) notion of the "precariat" highlights insecure labour,

yet in African contexts precariousness is not a fall from stability but the historical norm.

De Beukelaer's (2022) concept of "multi-activity survivalism" captures the portfolio livelihoods of creative workers, but risks naturalizing precarity. Ndlela (2021) advances the idea of "communities of precarious creativity," showing how informal institutions enable survival while reproducing vulnerability. In Kannywood, precarity is differentiated by gender, access to patronage and ability to navigate moral regulation, underscoring the need for a nuanced analysis.

Gender, Religion, and Creative Labour

Scholarship on gender and media in Africa has expanded, yet Kannywood remains undertheorized. Mahmood's (2005) concept of "pious agency" is useful for understanding how women exercise agency within moral norms rather than against them. In Kannywood, female practitioners negotiate creative aspirations with expectations of modesty, often working behind the scenes or leveraging digital platforms (Adebanwi, 2023).

However, symbolic negotiation must be connected to material labour conditions. Women's exclusion from leadership roles translates into lower earnings, limited career progression and reduced industry diversity. Gendered constraints thus reflect the intersection of patriarchal norms, religious regulation and structural inequalities, shaping differentiated livelihood outcomes.

Digital Transformations and Platform Labour

The digital turn in African screen media has reshaped distribution and audience engagement (Jedlowski, 2021; Adejunmobi, 2024). Platforms enable youth to bypass traditional gatekeepers, yet they also introduce algorithmic control, unpredictable monetization and intensified competition. Fuchs's (2023) concept of the "platform precariat" highlights how digital labor reproduces insecurity.

For Kannywood, digital platforms present both opportunity and vulnerability. They expand transnational reach but expose creators to piracy and volatile income systems. Importantly, platformization intersects with existing structures of censorship and patronage, creating hybrid regimes of regulation. This underscores the need to analyze digital transformations not as liberatory shifts but as extensions of precarious creative economies.

Synthesis

Taken together, the literature reveals a critical gap: while African youth are increasingly studied as agents of informal creativity, the structural constraints of political economy remain underexplored in Northern Nigeria. Nollywood scholarship dominates, marginalizing Kannywood as a site of labor and livelihood. Existing frameworks such as political economy, SLA, precarity, gender and digitalization each offer insights but require integration. This paper addresses these gaps by centering Kannywood as a case study to examine

how youth livelihoods are shaped by the interplay of political economy, moral regulation and digital transformation. In doing so, it contributes to broader debates on creative economies as both engines of aspiration and arenas of precarity.

Theoretical Framework

This study integrates the Political Economy of Culture (PEC) with the Sustainable Livelihoods Approach (SLA) to capture both structural forces and individual agency in Kannywood. PEC emphasizes how cultural production is shaped by power relations, regulation, and capital flows, situating Kannywood within a governance landscape where culture functions simultaneously as an economic commodity and a domain of moral control (Hesmondhalgh, 2019; Mosco, 2021). SLA complements this by focusing on how individuals mobilize assets including human, social and financial capital to sustain livelihoods in contexts of vulnerability (Scoones, 1998; De Haan & Zoomers, 2021).

Operationalizing SLA in Kannywood:

Human capital refers to technical skills such as acting, editing, camera work, and scriptwriting, often acquired through informal apprenticeship rather than formal training.

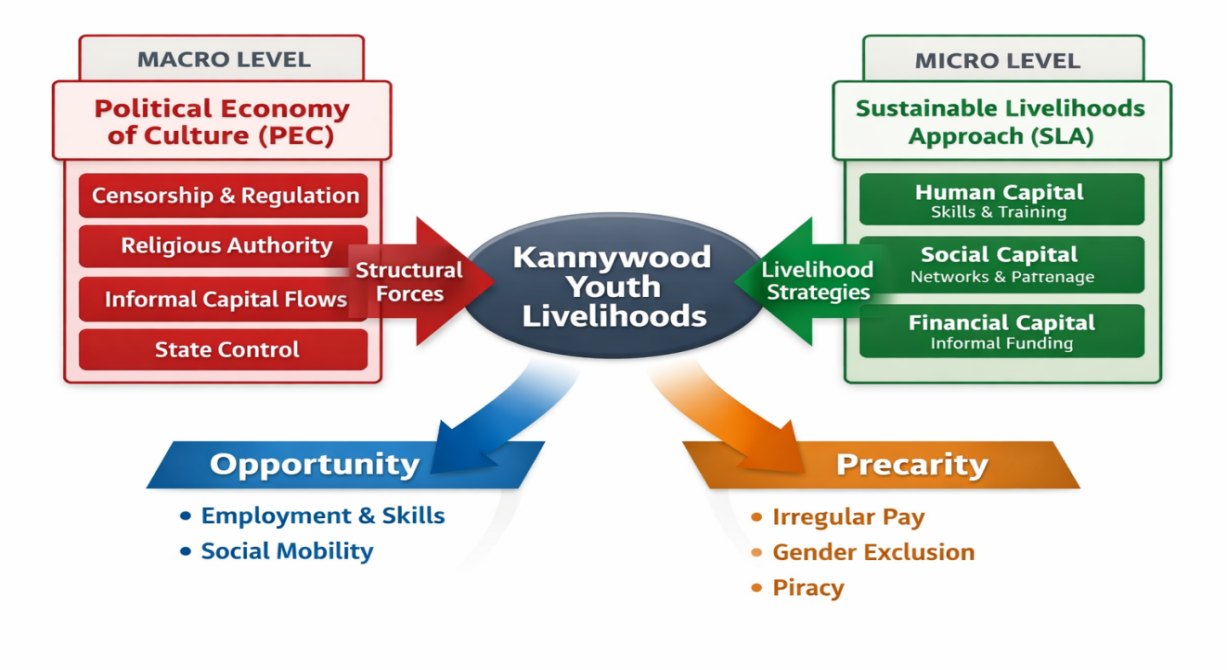
Social capital is embodied in apprenticeship networks, patronage ties, and guild affiliations that provide access to opportunities and protection in the absence of formal contracts.

Financial capital is mobilized through pooled savings, informal loans, and patron sponsorship, as formal credit institutions often deem the sector too risky.

These capitals illustrate how youth navigate precarity by leveraging skills, networks, and informal financing. However, SLA alone risks presenting these strategies as adaptive without interrogating the structural constraints that make them necessary.

Integrating PEC and SLA:

PEC strengthens SLA by revealing how censorship, religious regulation, and informal capital flows shape the distribution and conversion of livelihood assets. For example, while SLA identifies apprenticeship as social capital, PEC highlights how patronage networks reproduce inequality by privileging those with political or religious connections. Conversely, SLA strengthens PEC by grounding structural analysis in the lived experiences of youth, showing how individuals mobilize limited assets to sustain livelihoods despite systemic exclusion. Together, these frameworks provide a holistic lens: PEC explains the structural conditions of precarity, while SLA illuminates the agency and strategies of youth within those constraints. The integrated framework can be visualized as follows:



This conceptual model underscores the suitability of combining PEC and SLA: it demonstrates that youth livelihoods in Kannywood cannot be understood solely through individual strategies or structural analysis, but through their dynamic interplay.

3.0 Methodology

The study employed a qualitative, interpretive case study design focused on Kano, the hub of Kannywood's production activities. This approach was chosen because the research questions — exploring how Kannywood creates and constrains youth livelihood opportunities and how structural and gendered forces shape these dynamics — required deep engagement with participants' lived experiences and informal work practices. Data were collected between 2022 and 2023 through semi-structured interviews, participant observation, and an embedded case study of production clusters such as Zoo Road, Gidan Dan Hausa, Farm Centre and Tarauni. These methods collectively allowed triangulation and contextual understanding of creative labour within the industry's informal economy.

Thirty participants were selected through purposive and snowball sampling to ensure representation across occupational categories and gender. The sample included actors, directors, producers, editors, scriptwriters, and guild officials drawn from the Motion Picture Practitioners Association of Nigeria (MOPPAN) and the Kannywood Guild of Actors and Directors. Guild officials were included as key stakeholders responsible for regulating professional standards and mediating between practitioners and the state censorship board. The distribution of participants reflected the industry's structure, ensuring that insights captured the perspectives of both creative workers and institutional actors. The number of interviews corresponded directly to the number of respondents, maintaining internal consistency.

Ethical approval was obtained from the Research Ethics Committee of Bayero University, Kano, under the Faculty of Social and Management Sciences. Participants were informed of the study's purpose, procedures, and their rights, including voluntary participation and withdrawal. Written consent was secured, pseudonyms were used to protect identities, and data were stored securely. The ethical justification for the study lies in its potential to inform inclusive policy interventions for youth empowerment while safeguarding participants' dignity and confidentiality. Data were analyzed thematically using NVivo 12, combining inductive and deductive coding to connect individual narratives to broader political-economic structures.

4.0 Findings and Analysis

Youth Opportunities in Kannywood

The first research question asked: *How does Kannywood create livelihood opportunities for youth in Northern Nigeria?* Evidence shows that Kannywood functions as a crucial informal economy, offering both direct and indirect employment. Apprenticeship emerged as the primary mode of skill acquisition, with young people learning editing, camera work, and scriptwriting directly on set. One young editor explained: *"I never went to film school. I learned everything by watching others at Zoo Road. Now people call me for jobs because they know I can deliver."*

Beyond core production, ancillary services such as costume design, catering, and equipment rental generate secondary livelihoods. A studio manager noted: *"Whenever we are shooting, the whole street becomes active — street hawkers, tailors, food sellers, transporters. Everyone benefits."* This illustrates Kannywood's multiplier effect, sustaining a micro-economy that extends beyond the film set. Participation also confers symbolic capital, with youth gaining prestige across Hausa-speaking West Africa, particularly through YouTube distribution.

Challenges and Precarities

The second research question asked: *What structural and gendered forces constrain youth livelihoods in Kannywood?* Findings reveal that informality and economic insecurity are pervasive. Most work is verbal, with payment contingent on project success. As one producer lamented: *"A film can be rejected for a small thing if the message is seen as critical. That means months of work and no pay."* Piracy further undermines profits, leaving workers vulnerable to irregular income.

Censorship and religious regulation exert significant influence. Scripts are scrutinized for moral content, leading to delays or outright bans. Many youth internalize self-censorship to avoid rejection. Gendered constraints are particularly acute: female respondents described reputational risks and moral policing. One actress shared: *"My family warned me that acting would bring shame. I had to stop appearing on screen and now only work as a makeup artist."* This reflects Mahmood's (2005) notion of "pious agency," where women navigate creative aspirations within

moral norms, but it also underscores material exclusion from leadership and higher-paying roles.

Political Economy of Kannywood

The third research question asked: *How does the political economy shape youth livelihoods in Kannywood?* The industry is defined by the interplay of state regulation, religious authority, and informal capital. Financing relies heavily on pooled savings and patron loans, as formal institutions perceive the sector as high-risk. This limits production quality and scalability. At the same time, the state acts as both regulator and political patron, censoring films while co-opting stars for election campaigns. Religious authority sets ideological boundaries, influencing portrayals of gender and family, and creating a distinct aesthetic of modesty.

Digital platforms are reshaping this landscape by decentralizing gatekeeping, but they introduce new vulnerabilities such as algorithmic visibility and digital piracy. A young YouTube content creator explained: *"Online gives us freedom from the censorship board, but the money is unpredictable. Sometimes you get paid, sometimes nothing."* This highlights the emergence of a "platform precariat" (Fuchs, 2023), where digital innovation coexists with intensified insecurity.

Case Study: Youth Livelihoods in Kano

The integrated case study of Zoo Road and Farm Centre illustrates how Kannywood sustains distributed livelihoods. Three dominant entry pathways were identified: apprenticeship, social networks, and digital self-financing. Income levels vary: crew members earn ₦10,000–₦30,000 per production, while mid-level professionals may earn up to ₦120,000. Yet most youths combine filmmaking with other hustles, reflecting De Beukelaer's (2022) "multi-activity survivalism."

One scriptwriter reflected: *"Now people know me as a writer. Even if the money is small, I feel proud. It gives me dignity."* This pursuit of recognition transforms marginal conditions into sites of self-realization. However, sustainability is threatened by piracy and inadequate financing. The case study confirms that Kannywood functions as both an economic safety net and a symbolic resource, but its potential remains untapped without targeted policy support.

Analytical Contribution

The findings demonstrate that Kannywood embodies a dual reality: it is simultaneously a space of opportunity and precarity. Youth participation reflects adaptive agency within structural exclusion, sustaining dignity amid uncertainty. Yet systemic fragility such as censorship, piracy, gender inequality and lack of institutional support constrain its developmental potential.

By foregrounding direct narratives and lived experiences, this study contributes to knowledge by showing how political economy and livelihood strategies intersect in creative industries. It challenges celebratory accounts of entrepreneurship by revealing the structural power relations that determine

outcomes. Kannywood thus exemplifies the contradictions of Africa's creative economy: cultural innovation coexists with moral regulation, digital possibility with platform precarity and youth aspiration with systemic neglect.

5.0 Discussion

Kannywood as Precarious Livelihood

The findings confirm that Kannywood operates as both an economic lifeline and a site of precarity for Northern Nigerian youth. Apprenticeship networks and informal financing provide entry points into creative work, but the absence of contracts, irregular pay, and piracy perpetuate insecurity. This dual reality reflects the Sustainable Livelihoods Approach (SLA): youth mobilize human capital (skills), social capital (networks) and financial capital (informal funding) to sustain themselves. Yet, as the Political Economy of Culture (PEC) highlights, these assets are constrained by censorship, religious regulation, and patronage systems. Thus, while SLA explains how youth adapt, PEC reveals why adaptation is necessary — structural exclusion and institutional weakness shape the very conditions of survival.

Gender and Moral Regulation

Gendered constraints illustrate the intersection of symbolic and material economies. Women's participation is mediated by moral discourses of modesty and reputational risk, consistent with Mahmood's (2005) concept of "pious agency." However, empirical evidence shows that symbolic negotiation translates into material exclusion: women are relegated to auxiliary roles such as makeup artists or digital content creators, limiting their earnings and career progression. PEC strengthens this analysis by showing how patriarchal norms and religious authority regulate access to creative labor, while SLA highlights how women mobilize alternative assets such as digital platforms to carve out livelihoods. Together, these frameworks reveal that gender inequality in Kannywood is not merely cultural but deeply embedded in the political economy of creative work.

Digital Transformations and Platform Precarity

Digitalization offers new pathways for youth to bypass traditional gatekeepers, expand audiences and gain symbolic capital. Yet, findings show that digital platforms reproduce precarity through unpredictable monetization and algorithmic control. As one YouTube creator explained: *"Online gives us freedom from the censorship board, but the money is unpredictable. Sometimes you get paid, sometimes nothing."* This reflects Fuchs's (2023) notion of the "platform precariat." SLA captures how youth mobilize digital skills (human capital) and online networks (social capital), but PEC reveals how platform economies are embedded in global structures of control and exploitation. The integration of both frameworks demonstrates that digital innovation does not eliminate precarity; rather, it reconfigures it.

Contribution to Knowledge

Synthesizing PEC and SLA provides a more comprehensive understanding of

Kannywood's dual reality. SLA illuminates youth agency and adaptive strategies, while PEC situates these within broader structures of censorship, religious authority, and informal capital flows. At points of intersection, PEC strengthens SLA by exposing the limits of asset mobilization under structural constraints, while SLA strengthens PEC by grounding abstract power relations in lived experiences. This integrated lens advances scholarship by moving beyond celebratory accounts of creative entrepreneurship to reveal the contradictions of Africa's creative economy: aspiration coexists with exploitation, innovation with insecurity and cultural production with moral regulation.

Broader Implications

The analysis underscores that creative industries like Kannywood cannot be understood solely as engines of cultural expression or entrepreneurship. They are embedded in political economies that shape who participates, under what conditions, and with what outcomes. For policy, this means that interventions must go beyond skill training to address structural barriers: reforming censorship, expanding access to finance, and promoting gender equity. For scholarship, the study demonstrates the value of integrating PEC and SLA to analyze creative economies in contexts where informality, religion and state power converge. Kannywood thus serves as a critical case for rethinking youth livelihoods in Africa's creative sectors.

Conclusion

This study has shown that Kannywood functions as both a site of opportunity and precarity for youth in Northern Nigeria. Apprenticeship networks, informal financing, and digital platforms provide entry points into creative work, enabling skill acquisition, employment, and social mobility. Yet systemic challenges like censorship, piracy, irregular pay and gendered exclusion constrain its developmental potential.

By integrating the Political Economy of Culture (PEC) with the Sustainable Livelihoods Approach (SLA), the study demonstrates that youth livelihoods in Kannywood cannot be understood solely through individual strategies or structural analysis, but through their dynamic interplay. SLA illuminates how youth mobilize human, social, and financial capital, while PEC reveals how these assets are shaped and limited by regulation, religious authority and patronage. Together, these frameworks advance theoretical understanding of creative economies as spaces where agency and constraints coexist.

For film scholarship, the findings underscore the need to move beyond Nollywood-centric narratives and recognize Kannywood as a critical case for analyzing Africa's creative economy. The study contributes to knowledge by foregrounding how cultural industries in contexts of informality and moral regulation generate both livelihoods and vulnerabilities. More broadly, it highlights the importance of policy interventions that address structural barriers such as censorship reform, financing access and gender equity, if creative industries are to fulfill their

potential as engines of inclusive development.

Policy Recommendations

Government:

1. Reform censorship practices to balance cultural sensitivity with creative freedom.
2. Establish a Creative Industries Fund through the Bank of Industry to support youth-led productions.
3. Strengthen anti-piracy enforcement to stabilize income streams and protect intellectual property.
4. Integrate creative industry training into vocational and educational programmes to enhance human capital.

Guilds and Industry Bodies

1. Expand guild roles (e.g., MOPPAN, Kannywood Guild of Actors/Directors) to include capacity building, collective bargaining and welfare provision.
2. Develop standardized contracts and codes of practice to reduce exploitation and ensure fair remuneration.
3. Promote gender equity through mentorship programmes and representation of women in leadership positions.
4. Collaborate with digital platforms to negotiate fairer monetization terms and protect members from algorithmic precarity.

Development Partners

1. Fund training initiatives, digital literacy programs and infrastructure development for creative workers.
2. Partner with UNESCO, African Development Bank and other agencies to facilitate regional exchanges and market access.
3. Support research and policy advocacy to highlight the role of creative industries in youth empowerment and inclusive growth.
4. Ensure interventions are context-sensitive, recognizing the interplay of religion, politics and informality in shaping livelihoods.

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Sustainability Reporting and Financial Performance of Listed Manufacturing Companies in Nigeria.

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Abstract

The study investigates the impact of sustainability reporting on the financial performance of selected listed firms in Nigeria. The study adopts a quantitative research approach and utilizes panel data to examine the relationship between sustainability reporting and financial performance. It uses *correlational* research design. The population of the study is the 56 manufacturing companies listed on the Nigerian Stock Exchange as at May, 2022. The sample consists of 20 listed manufacturing firms in Nigeria. Secondary data were sourced from the company's annual reports and accounts for a period of five years, 2018-2022, with sustainability reporting as the independent variable and financial performance proxied by return on assets (ROA), return on equity (ROE), and earnings per share (EPS) as dependent variables. Regression analysis was used in testing the hypotheses. Based on the Hausman specification test, random effect model was used to evaluate the impact of sustainability reporting on financial performance. The study revealed that environmental and social sustainability reporting have a negative and insignificant effect on firms' financial performance while economic sustainability reporting has a positive insignificant effect on financial performance. The implication of this study is that companies that report sustainability reporting do not experience an increase in their financial performance. The study concluded that sustainability reporting does not have significant effect on the financial performance of manufacturing companies in Nigeria.

Keywords: sustainability reporting, financial performance, economic sustainability, social sustainability, environmental sustainability

1.0 Introduction

The practice of sustainability arose as a result of concern about the current and future environmental impact of resource utilization for human development. Fears of water, land, and air pollution, resource degradation, and deforestation have combined to create a new approach to resource utilization that seeks to meet current human needs without negatively affecting future generations' needs for such resources (Aminu, Abdullahi & Makama, 2021). As a result, sustainability reporting has become a standard practice in 21st-century business. In some developed countries, it is a mandatory practice, but it is voluntary in developing nation like Nigeria. According to KPMG (2022), surveys conducted over the last three decades have indicated that sustainability reporting has become an accepted part of disclosure and transparency for many large companies, with continued global

utilization and increased adoption into modern financial reporting.

The concept of sustainability reporting prioritizes both the mainstream concerns of business organizations' profit maximization, diversification, and product differentiation strategies as well as a global assessment of a firm's social and environmental impact (Yazid & Ahmed, 2021). In the modern business world, sustainability reporting has become increasingly relevant because it does not only satisfy stakeholders' informational needs about the firm's economic, social, and environmental activities but also gives the firm a competitive edge. Therefore, in today's business environment, where companies are always in competition, it is crucial for businesses to embrace sustainability reports so as to be abreast of their economic, social, and environmental performances to guarantee a competitive edge (Ivungu, 2020).

Most activities that are engaged in by firms often result into social, economic, environmental and humanitarian problems which have been of great concern to financial and social critiques as firms are expected to take care of these problems as well as contribute adequately to improving their environment. At the same time, companies are accompanied by the challenges to increase the value of their shareholders which is usually achieved by making profits. In light of this, scholars and accountants who are in support of sustainability reporting have argued that firms that engage in reporting sustainability issues more have positive performance indices than those who have not integrated sustainability reporting (Nnamani, Onyekwelu, Uche, Ugwu, 2017). The integration of the three performance areas, namely, economic, social and environmental indicators is regarded as sustainability and is deemed necessary for the survival of a modern business firm (Nnamani, *et al,* 2017). Sustainability reporting can help manufacturing companies in Nigeria comply with environmental and social regulations, reducing the risk of fines and legal action (Global Reporting Initiative, 2016). Sustainability reporting can assist manufacturing companies in engaging with stakeholders such as customers, employees, and communities. It can also boost trust, improve relationships, and foster a positive reputation (Global Reporting Initiative, 2016). However, manufacturing companies in Nigeria have a weak culture of stakeholders' engagement, making it difficult to gather the information required for sustainability reporting (Oshikoya, 2015).

Financial performance influences the market value as it helps investors in making informed financial and investment decisions that will maximize their wealth. Shareholders are typically interested in the financial performance of businesses (Umar, 2021). Companies are increasingly no longer just concentrating on the maximization of shareholder wealth but are also embracing the activities that could benefit the other stakeholders which to a large extent imply that firms are responding positively towards the issues of sustainability. Related studies in the area of sustainability reporting (SR) and financial performance (FP) have used different proxies to explain SR and FP. Return on assets, return on equity, net profit margin, earnings yield were used as proxies for FP in some studies (Ayodele & Oluwagbemi, 2018; Alhassan, 2021; Duc, 2021; Yazid & Hammed, 2021; Aiyesan, 2023; Peter & Ogaluzor, 2023, and Jayeola, 2024). In addition, reduction in green house emission, waste and water consumption; Economic SR, Social SR and Environmental SR were commonly used as proxies for SR (Zamil & Hassan, 2019; Umaru. 2021; Yazid & Hammed,

2021; Aiyesan, 2023). As a result of this perceived interconnectivity between sustainability reporting, financial performance and methodological gap, this study examines the effect of sustainability reporting on the financial performance of listed manufacturing companies in Nigeria.

2.0 Literature Review

Financial performance measurements are important tools for assessing the overall health of a company. These metrics are used to evaluate the company's profitability, liquidity, and solvency (Adebowale, 2022). Some of the commonly used financial performance measurements include return on equity (ROE), return on assets (ROA), debt-to-equity ratio, current ratio, and gross profit margin. Also, Return on assets (ROA) is a measure of a company's profitability that shows how much profit a company generates with its total assets. ROA is calculated by dividing net income by total assets (John & Umeoduagu, 2017). A high ROA indicates that a company is efficiently using its assets to generate profits (Kusuma, 2021). The adoption of sustainability reporting practices has the potential to affect a company's financial performance, including its Return on Assets (Emmanuel, 2021).

Return on equity is a measure of a company's profitability that shows how much profit a company generates with the money invested by its shareholders. ROE is calculated by dividing net income by shareholders' equity (Khrawish, 2018). According to (Syamsuddin, 2017) Return on Equity (ROE) is the ratio used to measure the ability of its own capital to generate benefits for all shareholders, both common stock and preferred stock. This ratio is used by investors to see how far the company can provide benefits in the future. Return on equity is one measure of earnings (income) available for owners of firms (both common shareholders and preferred shareholders) on the capital that they invested in the company. Earnings per Share (EPS) represents the portion of a company's profit that is allocated to each outstanding share of common stock. These metrics help investors and analysts to assess a company's profitability, liquidity, and solvency. By using these financial performance indicators, investors and analysts can make informed decisions about investing in a company**.** EPS is calculated subtracting preference dividend from net income divided by Weighted Average Number of Common Shares.

Sustainability reporting is a process by which organizations disclose their economic, environmental, and social performance to stakeholders. The global reporting initiative defines sustainability reporting as a tool for communicating an organization's commitment to sustainable development and its efforts to mitigate the negative impacts of its operations. Sustainability reporting provides transparency and accountability, and helps organizations to identify areas for improvement and to demonstrate their contribution to sustainable development. Sustainability reporting portrays that firms should reason social and environmental implications accompanied with economic impacts (Lozano, 2018). According to Camelia, *et al*, (2020) sustainability reporting is the practice of incorporating the environmental, social and economic aspects of an organization performance to the annual reports and accounts to enhance communication to the interested parties.

Environmental Sustainability Reporting encompasses the systematic measurement, disclosure, and

communication of an entity's environmental performance and practices, enabling stakeholders to evaluate and understand its commitment towards sustainable practices (Chukwuma, 2019). The reporting process typically involves collecting relevant data on environmental aspects such as energy consumption, greenhouse gas emissions, water usage, waste management, and biodiversity preservation. Economic sustainability reporting refers to the practice of disclosing and communicating an organization's economic performance and its ability to create long-term value for shareholders and other stakeholders. It focuses on financial indicators, economic impacts, and value creation strategies that support sustainable development. Economic sustainability reporting typically includes key financial indicators, such as revenue, profit, and return on investment, along with metrics related to sustainable business practices and stakeholder engagement (Kelly, 2022)

Conceptualizing Social Sustainability Reporting, Nyahaz, Ntayi, Kamukama and Munene (2018) perceive social sustainability reporting can be defined as the process of disseminating information on the social activities of the company to stakeholders such as the community, employees and customers. Also, social sustainability reporting can be defined as the process of reporting information on product improvement and development, community and philanthropic projects, employees welfare programs, compliance with environmental laws, employment generation, efforts at improving community relations (Egbunike & Tarilaye, 2017; Dawd & Charfeddine, 2019). Therefore, social sustainability reporting can be defined as the communication of information on employees' welfare, ethical responsibility and the well-being of the people around the locality of operations.

Empirical review

Ayodele and Oluwagbemi (2018) conducted a study on sustainability reporting and financial performance: evidence from Nigerian manufacturing firms. The results showed a positive relationship between sustainability reporting and return on assets (ROA), return on equity (ROE), and net profit margin (NPM). Also, Uwuigbe (2018), examined the bi-directional relationship between sustainability reporting and firm performance in quoted Deposit Money Banks (DMBs) in Nigeria. The study observed found that sustainability reporting had a significant positive impact on the revenue generation based on the sample firms.

Zamil and Hassan (2019) examined the impact of environmental reporting on the financial performance of Fortune 500 firms from 2013 to 2017. It appraises financial performance by measuring three independent variables: reduction in greenhouse gas emissions, reduction in waste, and reduction in water consumption. While the target population comprised the top 100 CSR-reputed companies listed on Fortune 500, the sample size was determined to be 50 based on observations of 250 companies. Findings indicated that reduction in nominated variables such as greenhouse gas emissions and water consumption had a positive and significant impact on financial performance, whereas that in another variable, i.e., waste, had a negative and significant impact on financial performance.

Alhassan (2021) examined the relationship between sustainability reporting and financial performance of listed industrial goods firms in Nigeria. The study found that sustainability reporting has a positive and significant impact on financial performance, as measured by ROA, ROE, and earnings per share (EPS). On the other hand, Umar (2021) investigated the impact of sustainability reporting on the financial performance of Nigerian listed consumer goods firms. The findings revealed a strong positive relationship between social reporting sustainability and financial performance. Similarly, findings indicate that financial performance has a positively significant impact on environmental sustainability reporting. Duc (2021), conducted a study to empirically explore the influence of sustainability practices on the financial performance of 116 listed Swedish companies in the year 2019. The research findings indicate a positive relationship between corporate sustainability and financial performance that is measured by earnings yield, return on asset, return on equity and return on capital employed. Yazid and Ahmed (2021) examined the effect of sustainability reporting on financial performance of quoted Nigerian oil and gas firms. The study makes use of Return on Asset to measure financial performance. The result revealed that economic sustainability has a positive insignificant effect on ROA; environmental sustainability has a positive significant effect on ROA while social sustainability has a positive insignificant effect on ROA. Based on the findings, this study therefore, concludes that sustainability reporting has a significant effect on the financial performance of listed oil and gas firms in Nigeria. The study, recommends among others that, listed Nigerian oil and gas firms should emphasize more on reporting their sustainability activities as it is capable of improving their financial performance. The policy makers and standard setting organisations should facilitate the issuance of a sector specific reporting guidelines to facilitate compliance.

Aiyesan (2023) examined the effect of sustainability reporting on financial-performance of listed manufacturing firms in Nigeria from 2010 to 2020. Ex-post facto research design was employed and 24 firms from 8 sectors were sampled. Data were sourced from their annual report and analysed using Panel-regression technique. The study found positive significant connection linking DP, ERS and R&D and financial performance while CRS has negative insignificant effect on financial performance. Base on the findings, the study concluded that SR has positive influence on financial performance of listed manufacturing firms in Nigeria. The study recommended that relevant authorities should encourage firms to report SR on real-time and make reporting compulsory and not voluntary. There should be strict enforcement on firms to increase investment in R&D as this profitability and help climate change

Peter and Ogaluzor (2023) examined the effect of corporate sustainability reporting on financial performance in Nigeria employing samples from manufacturing firms that are listed on the floor of the Nigerian Exchange Group for the period 2012-2021. In the study, environmental disclosure index, social disclosure index and governance disclosure index are the corporate sustainability reporting employed to examine their effect on financial performance. Financial performance is measured in terms of return on asset. Earnings per share as the control variable. A critical examination of all the diagnostic tests revealed that the model failed the normality assumption of the OLS estimates. The study concluded that

only the variable of governance disclosure appears to significantly affect the financial performance of listed manufacturing firms in Nigeria. However, there was an insignificant positive effect of environmental and social sustainability on the financial performance. It was recommended that valuable financial, material, and human resources should be channelled on policies that relate to improving governance sustainability if the desire is to gain improved return on asset or improved firm value.

Jayeola (2024) explored the relationship between sustainability reporting (SR) and financial performance of drug manufacturers listed on the Nigerian Stock Exchange (NSE). Seven drug manufacturing companies' annual reports from 2019-2022 were used for the purpose of analysis. SR measurement included environmental, economic, and social sustainability. Performance was measured using return on assets. The results indicate a positive association between sustainable economic reporting and financial performance, but statistically insignificant. In addition, there is a negative and significant correlation between sustainable environmental reporting and financial performance. However, sustainable social reporting correlates with financial performance negatively and insignificantly.

Theoretical Review

Legitimacy theory suggests that firms have a social contract with society and must act in a socially responsible manner to maintain their legitimacy. Sustainability reporting allows firms to communicate their ESG performance to society and demonstrate their commitment to sustainability. When firms act in a socially responsible manner, they are perceived as legitimate and trustworthy, leading to increased financial performance (Faisal et al, 2012). The Legitimacy theory assigns management the responsibility of providing fair disclosure of social, economic, and environmental information about the firm to various stakeholders group. To effectively manage legitimacy as a resource, firms voluntarily disclose this information in their annual report, to capture the attention of interested stakeholders, which is expected to be done ethically (Akintoye, 2022). Considering the heritage held by management, (Burlea, 2020) believed that legitimacy theory should connect reporting responsibilities with ethical values. The legitimacy gap often arises when management is not sensitive to the effects of the company's activities in the society where it exists, as well as the community expectations with respect to the generation of maximum profit. The legitimacy gap is minimized through the provision of social and environmental responsibilities as well as striking a compatible balance between company operations and the expectations of the society where manufacturing activities take place (Akintoye, *et al.,* 2022).

Stakeholder theory suggests that firms have a responsibility towards various stakeholders, including shareholders, employees, customers, and society. Sustainability reporting allows firms to communicate their ESG performance to stakeholders and address their concerns. A stakeholder can be described as an individual or group of people that are affected by the achievement of goals of an organization (Freeman, 1984). Philips (2003) also identified a stakeholder as a particular group of people that the company owes an obligation based on their cooperation and participation in its corporate affairs and that makes the organization and a going concern. From the point of view of stakeholders, firm performance indicators are the most important because they are significant to

all of the firm's core stakeholders but they are unfinished and oversimplify the duties of the stakeholders that are crucial to the success of the firm (Barney, 2011). Stakeholder theory differs from legitimacy theory because, legitimacy theory treats the society as one group and tasks the firm to meet the expectations of the group (the society) while stakeholder's theory divides the society into groups called stakeholders and task the firm to meet the expectations of various stakeholders (John, *et al.,* 2021). Sustainability reporting encompasses economic, social and environmental aspects of reporting while financial performance reflects the return due to investors as proxied with ROA and ROE.

3.0 Methodology

Ex post-facto research design was used in the study. Return on asset, return on equity, and earnings per share are the dependent variables, while economic sustainability reporting, environmental sustainability reporting and social sustainability reporting are the proxies for independent variables. Furthermore, secondary data was used for this study because the measurement for the variables are available in the annual reports of the sampled firms. The population of the study is 56 quoted manufacturing firms on the Nigerian Exchange Group (NGX) as at May 2022. The population, according to NGX, comprises of the following sectors: agriculture (5), consumer goods (21), healthcare (7), industrial goods (13), and natural resources (4). The period for the study is five (5) years, from 2018- 2022. Stratified sampling was used as the appropriate sampling method in the study to determine sample size. This study relied on a sample of 19 companies from 5 different sectors: conglomerates, consumer goods, health care, natural resources and industrial goods for a period of 5 years, that is, 2018-2022 because of the growing acceptance of sustainability reporting since 2018. The data related to sustainability were collected from annual reports through the use of content analysis technique. Specifically, GRI-4 was the basis for extracting the data for economic sustainability, social sustainability and environmental sustainability while the variables of financial performance were extracted from annual accounts and reports. The variables of financial performance and sustainability reporting were sourced from published annual reports and accounts, and standalone sustainability reports of sample firms. Factors considered in determining the sample size of 20 firms are: the companies whose shares had been traded for at least five years 2018-2022, companies that published annual financial reports for year 2018 through 2022, and finally, corporations that included sustainability reporting components in their financial statements or separate sustainability reports. Stratified and purposive sampling techniques were adopted in the selection of sampled companies that met the stated criteria in order to achieve the objective of study.

Table 1 Sustainability reporting measurements (Independent variables)

Measure	Abbreviation	Definition
Sustainability Reporting	SR	Average of aggregate of ECSR (4), SOSR (12) and ENSR (17).
Economic Sustainability Reporting	ECSR	The aggregate score of the arithmetic mean for each indicator under economic category.
Environmental Sustainability Reporting	ENSR	The aggregate score of the arithmetic mean for each indicator under environmental category.

Social Sustainability Reporting	SOSR	The aggregate score of the arithmetic mean for each indicator under social category.
Financial performance measurements (Dependent Variables)		
Financial performance	FP	Average of aggregate of ROA, ROE and EPS
Return on Asset assets.	ROA	Average of a company's profitability in relation to its total It is calculated by dividing the net income of the company by its total assets
Return on Equity	ROE	Average of a company's profitability in relation to its shareholders' equity. It is calculated by dividing the net income of the company by its shareholder's equity.
Earnings per Share	EPS	Average of a company's profit allocated to each outstanding share of its common stock. It is calculated by dividing the company's net income by the total number of outstanding shares.

Source : Author's Draft (2023)

4.0 Discussion of the Results

The descriptive statistics of the variables used in the analysis are presented in Table 2. The table explains and summarizes the minimum, maximum, mean, median, spread and normality of variables. ROA mean value is 0.2070 which implies that the average Return on Asset for Sample Company is 20.7%. It had a median value of 4% which is the middle value in the dataset.

Table 2: Descriptive Statistics

	ROA	ROE	EPS	EVSR	ECSR	SOSR
Mean	0.02070	0.13570	5.48250	0.21700	0.51750	0.17450
Median	0.040000	0.125000	0.560000	0.145000	0.500000	0.14500
Maximum	0.640000	3.670000	61.77000	0.750000	0.750000	0.58000
Minimum	-3.33000	-15.7000	-5.74000	0.080000	0.250000	0.06000
Std. Dev.	0.36147	1.71407	13.7440	0.17241	0.14059	0.11363
Observations	100	100	100	100	100	100

Source: Researcher's compilation using E-views 10 output, (2023)

Also, it had a maximum and minimum value of 64% and -3.33% respectively, showing the highest and lowest return on asset recorded by a firm. ROA had a standard deviation of 36% showing the degree of variability in the return on asset of sampled firms. ROE shows a mean score of 14% and median value of 13%, maximum and minimum values of 3.67% and -15.7% respectively. EPS shows mean and median values of 5.48% and 56% respectively, maximum and minimum values of 61.77% and -5.74% respectively.

Correlation Analysis

Correlation analysis assesses the relationship between dependent and independent variables. Correlation analysis helps determine whether changes in one variable are associated with changes in another variable. The correlation coefficient of a variable is shown by the table above with regards to itself as 1.000. The correlation test for the model in the table 3 reveals that explanatory variables such as ENSR, ECSR and SOSR have a positive

correlation with the firm's financial performance.

Table 3 Correlation Analysis

Correlation	ROA	ROE	EPS	EVSR	ECSR	SOSR
ROA	1.000000					
ROE	0.076503	1.000000				
EPS	0.175246	0.159217	1.000000			
EVSR	0.010455	0.101681	0.041351	1.000000		
ECSR	0.194139	-0.101434	0.186334	0.330333	1.000000	
SOSR	0.055053	0.035073	0.095940	0.374969	0.540316	1.000000

Source: E-views 10 output (2026)

This indicates a positive correlation, meaning that as one variable increases, the other variable also increases. As environmental sustainability reporting (ENSR), economic sustainability reporting (ECSR) and social sustainability reporting (SOSR) increase, return on asset (ROA) and earnings per share (EPS) also increases, except ECSR which reveals a negative correlation to ROE with a negative value of -10% meaning that as ECSR increases, return on equity also decreases. ECSR and ROA shows the strongest relationship with a positive correlation value of 19%.

Regression Analysis

To examine the effect of sustainability reporting on financial performance, the multiple regression analysis was carried out. The Hausman test was conducted in order to determine which model would be used for this analysis.

Test of Hypotheses

The study sets its decision rule for the acceptance of hypothesis at 5% level of significance, and at a t-value of 1.96. Hence, the null hypothesis would be rejected if the probability value is less than 0.05 and the t-value is less than 1.96.

Test of Hypothesis 1

H0: Economic sustainability reporting does not have any significant effect on the financial performance of listed manufacturing firms in Nigeria.

Table 4 shows the results for the regression analysis of the Effects of Sustainability Reporting on Financial Performance of selected Listed Companies in Nigeria. The dependent variables are Return on Asset (ROA), Return on Equity (ROE) and Earnings per Share (EPS). The independent variables are Environmental Sustainability Reporting (EVSR), Economic Sustainability (ECSR) and Social Sustainability (SOSR) *Significant at 5%.

The results show that EVSR and SOSR have a negative relationship with return on asset of selected listed companies in Nigeria. There is evidence that environmental and social sustainability reporting have an insignificant relationship with return on equity of selected listed companies in Nigeria. Given the results, EVSR has a negative insignificant effect on ROA (T-value of -4% and p-value 68.9%), and SOSR has a negative insignificant effect on ROA with t-value of (-4% < 1.96) and p-value of (66.9% > 5% level of significance). A negative insignificant effect suggests that the reporting of environmental and social sustainability practices does not have an effect on the ROA of the company.

Table 4: Effect Economic sustainability reporting on the financial performance

Dependent Variable: ROA				
Method: Panel EGLS (Cross-section random effects)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.246243	0.151648	-1.623780	0.1077
EVSR	-0.099878	0.249465	-0.400369	0.6898
ECSR	0.619040	0.337049	1.836648	0.0694
SOSR	-0.181870	0.424561	-0.428370	0.6693
	Effects Specification			
			S.D.	Rho
Cross-section random	0.076275			0.0448
Idiosyncratic random	0.352271			0.9552
	Weighted Statistics			
R-squared	0.036526		Mean dependent var	0.018631
Adjusted R-squared	0.006417		S.D. dependent var	0.353407
S.E. of regression	0.352271		Sum squared resid	11.91312
F-statistic	1.213139		Durbin-Watson stat	1.327450
Prob(F-statistic)	0.309201			
	Unweighted Statistics			
R-squared	0.043097		Mean dependent var	0.020700
Sum squared resid	12.37855		Durbin-Watson stat	1.277539

Source: E-views 10 output (2026)

Economic sustainability reporting is the exception, which has a positive and significant effect on ROA with a t-value of (1.84% < 1.96) and p-value (6.9% > 5%). A positive coefficient means that the act of reporting sustainability practices does not have a meaningful impact on a company's return on asset. The negative effect implies that there might be a slight reduction in ROA, but this reduction is not statistically significant or substantial enough to draw conclusive evidence of a relationship between the two variables.

The R-squared, which is the multiple coefficient of determination, gives the proportions of the total variation in the dependent variable explained by independent variables jointly. The result shows that about 3.6% of systematic variations of earnings per share are explained by sustainability reporting leaving 96.4% unaccounted for. The R-squared when further adjusted to -0.006 signifies that only 0.64% of changes in return on asset of selected listed firms in Nigeria are caused by their sustainability reporting practices. The Durbin Watson value of 1.33% < 2.0 is an indication of positive autocorrelation in the model. Therefore, the null hypothesis was not rejected which states that economic sustainability reporting has no significant effect on financial performance of the selected listed firms in Nigeria.

Test of Hypothesis 2

H0: Environmental sustainability reporting does not have a significant effect on the financial performance of listed manufacturing firms in Nigeria.

Table 5 shows the results for the regression analysis of the Effects of Sustainability Reporting on Financial Performance of selected Listed Companies in Nigeria. The dependent variables are Return on Asset (ROA), Return on Equity (ROE) and Earnings per Share (EPS). The independent variables are Environmental Sustainability Reporting (EVSR), Economic Sustainability (ECSR) and Social Sustainability (SOSR) *Significant at 5%. The results show that SOSR has a positive relationship with return on equity of selected listed companies in Nigeria. There is evidence that environmental and social sustainability reporting have an insignificant relationship with return on equity of selected listed companies in Nigeria.

Table 5 Effect Environmental sustainability reporting financial performance

Dependent Variable: ROE				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.836229	0.668760	1.250417	0.2142
EVSR	1.310443	1.100126	1.191176	0.2365
ECSR	-2.362751	1.486367	-1.589615	0.1152
SOSR	1.362913	1.872293	0.727938	0.4684
	Effects Specification			
			S.D.	Rho
Cross-section random			0.000000	0.0000
Idiosyncratic random			1.725999	1.0000
	Weighted Statistics			
R-squared	0.036230	Mean dependent var		0.135700
Adjusted R-squared	0.006113	S.D. dependent var		1.714070
S.E. of regression	1.708823	Sum squared resid		280.3273
F-statistic	1.202956	Durbin-Watson stat		1.296999
Prob(F-statistic)	0.312936			
	Unweighted Statistics			
R-squared	0.036230	Mean dependent var		0.135700
Sum squared resid	280.3273	Durbin-Watson stat		1.296999

Source: E-views 10 output (2026)

Given the results, EVSR has a positive insignificant effect on ROE (T-value of 1.19% and p-value 23.7%) and SOSR has a positive insignificant effect on ROE with t-value of (0.72% < 1.96) and p-value of (46% > 5% level of significance). A positive insignificant effect suggests that the reporting of environmental and social sustainability practices does not harm or benefit the return on equity of the investors. Economic sustainability reporting is the exception, which has a negative and significant effect on ROE with a t-value of (-1.59% < 1.96) and p-value (12% > 5%). A negative coefficient means that the act of reporting economic sustainability does not have a meaningful impact on a company's return on equity. The negative effect implies that there might be a slight reduction in ROE, but this reduction is not statistically significant or substantial enough to draw conclusive evidence of a relationship between the two variables.

The R-squared, which is the multiple coefficient of determination, gives the proportions of the total variation in the dependent variable explained by independent variables jointly. The result shows that about 3.6% of systematic variations of earnings per share are explained by sustainability reporting leaving 96.4% unaccounted for. The R-squared when further adjusted to -0.006 signifies that only 0.6% of changes in return on equity of selected listed firms in Nigeria are caused by their sustainability reporting practices. The Durbin Watson value of 1.29% > 2.0 is an indication of positive autocorrelation in the model. Therefore, the null hypothesis was accepted which states that environmental sustainability reporting has no significant effect on financial performance of the selected listed firms in Nigeria.

Test of Hypothesis 3

H0: Social sustainability reporting does not have a significant effect on the financial performance of listed manufacturing firms in Nigeria.

Table 6 shows the results for the regression analysis of the Effects of Sustainability Reporting on Financial Performance of selected Listed Companies in Nigeria. The dependent variables are Return on Asset (ROA),

Return on Equity (ROE) and Earnings per Share (EPS). The independent variables are Environmental Sustainability Reporting (EVSR), Economic Sustainability (ECSR) and Social Sustainability (SOSR) *Significant at 5%.

Table 6 Effect of Social sustainability reporting on the financial performance

Dependent Variable: EPS				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.933480	12.01011	-0.327514	0.7440
EVSR	-1.800079	19.75690	-0.091111	0.9276
ECSR	18.96732	26.69331	0.710565	0.4791
SOSR	-0.051535	33.62406	-0.001533	0.9988
	Effects Specification			
			S.D.	Rho
Cross-section random			13.61927	0.8475
Idiosyncratic random			5.777509	0.1525
	Weighted Statistics			
R-squared	0.007082	Mean dependent var		1.021886
Adjusted R-squared	-0.023947	S.D. dependent var		5.709550
S.E. of regression	5.777509	Sum squared resid		3204.442
F-statistic	0.228238	Durbin-Watson stat		1.483992
Prob(F-statistic)	0.876534			
	Unweighted Statistics			
R-squared	0.035178	Mean dependent var		5.482500
Sum squared resid	18043.19	Durbin-Watson stat		0.263555

Source: E-views 10 output (2026)

The results show that SOSR has a negative relationship with earnings per share of selected listed companies in Nigeria. There is evidence that environmental and social sustainability reporting have an insignificant relationship with earnings per share of selected listed companies in Nigeria. Given the results, ENSR has a negative insignificant effect on EPS (T-value of -9% and p-value 92%) and SOSR has a negative insignificant effect on EPS with t-value of (-0.1% < 1.96) and p-value of (99% > 5% level of significance). A negative insignificant effect suggests that the reporting of environmental and social sustainability practices does not harm or benefit the earnings per share of the company. Economic sustainability reporting is the exception, which has a positive and significant effect on EPS (t-value 71% < 1.96 and p-value 48% > 5%). A positive coefficient suggests that an increase in economic sustainability reporting will lead to an increase in EPS. However, since the effect is insignificant, it implies that this relationship is not strong enough to be considered statistically significant.

The R-squared, which is the multiple coefficient of determination, gives the proportions of the total variation in the dependent variable explained by independent variables jointly. The result shows that about 0.7% of systematic variations of earnings per share are explained by sustainability reporting leaving 99.3% unaccounted for. The R-squared when further adjusted to -0.023 signifies that -2.3% of changes in earnings per share of selected listed firms in Nigeria are caused by their sustainability reporting practices. The Durbin Watson value of 0.26% < 2.0 is an indication of positive autocorrelation in the model. Therefore, the null hypothesis was accepted which states that social sustainability reporting has no significant effect on financial performance of the selected listed firms in Nigeria.

Discussion of Findings

The study assesses the effect of sustainability reporting on firms' financial performance in Nigeria for the

period 2018-2022. Three hypotheses were examined and their results are summarized below. The first hypothesis examined the effect of economic sustainability reporting on the financial performance of selected listed companies in Nigeria. The regression result showed that the null hypothesis of economic sustainability reporting and financial performance of the selected listed firms in Nigeria was not rejected. Thus, the alternative hypothesis was rejected which states that economic sustainability reporting has a significant effect on financial performance of the selected listed firms in Nigeria. This result contradicts the findings of Maryam (2021) which show a significant effect of economic sustainability reporting and financial performance. But it corresponds with Yazid & Ahmed (2021) whose study revealed that economic sustainability has an insignificant effect on financial performance.

The second hypothesis examined the effect of environmental sustainability reporting and financial performance of the selected listed firms in Nigeria. The null hypothesis was accepted which states that environmental sustainability reporting has no significant effect on financial performance of the selected listed firms in Nigeria. This result is consistent with Ogonna and Chikwendu (2019) who found an insignificant effect of environmental sustainability reporting on financial performance of firms using ROA as a measure of financial performance. However, Odumegwu (2022) used ROE as a measure of financial performance, but found no significant relationship between sustainability reporting and financial performance.

The third hypothesis of this study examined the effect social sustainability reporting and financial performance of the selected listed firms in Nigeria. From the results, the outcome of this study shows that SOSR has no significant effect on the financial performance of selected listed companies in Nigeria. The null hypothesis was accepted which states that social sustainability reporting has no significant effect on financial performance of the selected listed firms in Nigeria. This result contradicts the study of Ismail (2021) which found significant effect of social sustainability reporting and firm financial performance. It is congruent with Mohammed (2021) whose study reveals an insignificant relationship between sustainability reporting and financial performance of selected listed firms in Nigeria.

Recommendations

The study recommends that:

1. Manufacturing companies should adhere to the economic sustainability reporting standards so as to balance it with their financial performance objectives for the purpose of meeting the needs of several stakeholders.

2. Manufacturing companies should invest in environmental preservation so as to increase their legitimacy which will eventually boost financial performance.

3. Manufacturing companies should commit funds to projects that can benefit the neighbouring communities to boost the drive for profitability.

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KNOWLEDGE PROCESS CAPABILITY AND PERFORMANCE OF PENSION FUND ADMINISTRATORS IN NIGERIA: AN EMPIRICAL EXAMINATION OF THE MODERATING EFFECT OF EMPLOYEE INVOLVEMENT CULTURE

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Abstract

This study proposed a model that suggests interaction between four dimensions of knowledge process capability (acquisition, storage, sharing and application) and organizational performance. The model incorporated employee involvement culture as a moderator in the interaction between knowledge process capability and performance of Pension Fund Administrators in Nigeria. The model will contribute to a better understanding of the relationship between knowledge process capability, employee involvement culture and organizational performance. The study will guide stakeholders in the pension subsector to understand the component of knowledge process capability (acquisition, storage, sharing and application) that facilitates performance of organizations through contribution of employee involvement culture. The study suggests an empirical evaluation of the interaction among knowledge process capability (acquisition, storage, sharing and application) and organizational performance through the moderating role of employee involvement culture to be conducted in the future using advanced robust data analysis software such as Partial Least Square Structural Equation Modelling (PLS-SEM).

***Keywords*:** employee involvement culture, knowledge process capability, organizational performance

1.0 Introduction

The increasing complexity of the global business environment has made knowledge a critical strategic resource for achieving sustained organizational performance. Within the field of strategic management, organizations gain competitive advantage through the effective utilization of valuable, rare, inimitable, and non-substitutable resources, particularly knowledge (Barney, 1991). As a result, organizations are increasingly focusing on developing knowledge process capabilities such as knowledge acquisition, storage, sharing, and application to enhance performance.

The performance of Pension Fund Administrators (PFAs), particularly in terms of their contribution of pension assets to economic development as measured by Gross Domestic Product (GDP), varies across countries. For instance, the Organisation for Economic Co-operation and Development (2024) Global Pension Statistics report indicates that the contribution of pension assets to GDP is relatively low in most selected

jurisdictions. Nigeria's contribution stands at 8.1%, which is lower than that of countries such as Kenya (13.7%), Papua New Guinea (16.9%), Malawi (17.1%), and Botswana (58.0%), reflecting the comparatively weak performance of PFAs (OECD, 2024). At the domestic level, the National Pension Commission (2025) reports that 368,911 Retirement Savings Account (RSA) holders have transferred ₦1.77 trillion from one PFA to another since the commencement of the transfer window, largely due to dissatisfaction with PFA performance.

The poor performance of the PFAs has compelled the Police Retired Officers Forum of Nigeria (PROF) to block one of the gates to the Presidential Villa in Abuja demanding for exclusion of police officers in Contributory Pension Scheme (CPS) (Isamotu & Clement, 2026). Retirees of the Nigerian Ports Authority (NPA) begged Tinubu to intervene over 16 years unpaid pension due to poor performance of Pension Fund Administrators (PFAs) in Nigeria (Bodunde, 2026). Umar (2023) explained that inefficiency of PFAs necessitated Head of the Civil Service of the Federation and Permanent Secretaries to request for presidential fiat to exit the CPS. In addition, the personnel of the Nigerian Intelligence Agency (NIA) and National Assembly (NASS) service have been excluded from CPS due to incompetence of the PFAs (Olafusi, 2023). Several pension contributors and retirees have agitated against poor performance of PFAs in Nigeria (Iwunze, 2023). Moreover, the Senate, through its committee on Anti-Corruption and Financial Crimes, directed investigation of the activities of PFAs in Nigeria due to inefficiency (Salau, 2023). Nevertheless, Achadinha (2020) suggested that modern strategies, knowledge process capability and cultural adoption may enhance performance of PFAs in Nigeria.

Employee involvement culture refers to the extent to which employees are empowered to participate in meaningful decision making, problem solving and continuous improvement in an organization (Lawler, 1996). Ologbo and Sofian (2013) revealed that employee involvement culture has been associated with organizational performance. From a theoretical viewpoint, it aligns with Knowledge-Based View of firms which suggests that valuable, rear and inimitable human resources can create a sustained competitive advantage (Barney, 1991).

Knowledge process capability is the ability of organizations to create, store, share, and apply knowledge effectively (Gold, Malhotra & Segars, 2001). According to Lee and Choi (2003), organizations with strong knowledge process capability are better positioned to leverage employee expertise, enhance decision making, and organizational performance. However, the effectiveness of such processes often depends on the presence of complementary cultural attributes such as employee involvement culture which would encourage employee participation in decision making, knowledge acquisition, storage, sharing and application. Employee involvement culture is an intangible resource which organizations may utilize to moderate the influence of knowledge process capability on organizational performance (Onyango, Egessa & Ojera, 2022). This suggests the need to investigate the moderating role of employee involvement culture on the relationship between the constructs.

1.2 Statement of the Problem

The inability of organizations to adopt knowledge process capability (acquisition, storage, sharing and

application) as some of the most valuable strategic resources that should be managed in order to enhance performance has led to poor performance of organizations in recent times (Surchi, 2025).

There are studies conducted on the relationship between knowledge process capability (acquisition, storage, sharing and application) and organizational performance which revealed inconsistent results. Among the studies that reported positive association are Saputri (2025); Enstroem, Kang and Bhawna (2025); AL-Tabtabae and Harbiun (2022); Tessema, Yang and Chen (2025).

Other studies that reported negative association between knowledge process capability (acquisition, storage, sharing and application) and organizational performance include Surchi (2025); Mills and Smith (2020); Parayitam, Naina, Shea, Mohideen and Aruldoss (2025); and Aldilami and Al-Murhadi (2025). In order to address these contradictions, weaknesses or inconsistencies, a moderator can be introduced (Lowry & Gaskin, 2014; Baron & Kenny, 1986). Therefore, this study introduced employee involvement culture as a moderator.

The review of literature on knowledge process capability (acquisition, storage, sharing and application) and organizational performance revealed that the variables are investigated using different qualitative and quantitative tools such as in-depth interview, focus group discussion, content analysis and mixed methods by Mills, et al. (2020); Parayitam, Naina, Shea, Mohideen and Aruldoss (2025); Saputri (2025); Enstroem; Kang and Bhawna (2025); AL-Tabtabae and Harbiun (2022); and Aldilami and Al-Murhadi (2025). Nevertheless, these tools may not make it possible to cover a great number of the population and thus, may not provide details of the phenomenon (Fujii, 2018). The foregoing techniques offer limited modelling capabilities, particularly in terms of causal or complex modelling (Lowry & Gaskin, 2014). Therefore, the current study suggests the adoption of Partial Least Squares Structural Equation Modelling (PLS-SEM) to investigate the interaction among knowledge infrastructure capability and organizational performance through the moderating role of employee involvement culture.

Several studies on knowledge process capability and organizational performance were conducted in different contexts. These include Saputri (2025); Enstroem; Kang and Bhawna (2025); AL-Tabtabae and Harbiun (2022); Surchi (2025); Mills, et al. (2020); Parayitam, Naina, Shea, Mohideen and Aruldoss (2025); and Aldilami and Al-Murhadi (2025). However, they are not focused on pension industry in Africa, and in particular, PFAs in Nigeria. Hence, their findings cannot be generalized to Nigeria due to cultural differences. Again, other studies conducted in Nigeria concentrated on universities without considering PFA subsectors.

Arising from the foregoing, this study seeks to: (1) investigate the influence of knowledge process capability (acquisition, storage, sharing and application) on organizational performance; and (2) examine the moderating role of employee involvement culture on the relationship between knowledge process capability and organizational performance. The hypothesis of the study are as follows:

i. H_{o1}: there is no significant relationship between knowledge acquisition and organizational performance of PFAs in Nigeria.

ii. H_{o2}: there is no significant relationship between knowledge storage and

organizational performance of PFAs in Nigeria.

iii. H_{o3}: there is no significant relationship between knowledge sharing and organizational performance of PFAs in Nigeria.

iv. H_{o4}: there is no significant relationship between knowledge application and organizational performance of PFAs in Nigeria.

v. H_{o5}: there is no significant moderating effect of employee involvement culture on the relationship between knowledge acquisition and performance of PFAs in Nigeria.

vi. H_{o6}: there is no significant moderating effect of employee involvement culture on the relationship between knowledge storage and performance of PFAs in Nigeria.

vii. H_{o7}: there is no significant moderating effect of employee involvement culture on the relationship between knowledge sharing and performance of PFAs in Nigeria.

viii. H_{o8}: there is no significant moderating effect of employee involvement culture on the relationship between knowledge application and performance of PFAs in Nigeria.

2.0 Conceptual Review

2.1 Organizational Performance

Organizational performance is one of the most significant variables researched by scholars of management. It is a critical area of management which many scholars have paid attention to in recent times (Janadari, 2020). Organizational performance is multidimensional in nature and is the major target of both public and private organizations (Novak, 2017). According to Fatafta, Obeidat, Mohammed and Kanaan (2019), different factors influence organizational performance to ensure survival of organizations through satisfaction of stakeholders. Financial performance is measured using financial indicators such as return on investment (ROI), return on equities (ROE), return on asset (ROA), costs, sales, and growth, while non-financial performance measures include product quality, customer satisfaction, delivery on time, efficiency, effectiveness, responsiveness, equity, productivity, market share, employee satisfaction, strategic goal attainment, workforce development and improvement (Kaplan & Norton 1996; Denison & Mishra 1995). For the purpose of this study, we adopt non-financial performance measures to determine performance of PFAs in Nigeria in relation to knowledge infrastructure capability through moderating role of employee involvement culture. Therefore, this study adopts measures of organizational performance developed by Ostrom (1975) which comprises efficiency, effectiveness, responsiveness and equity, used in the original work of Song (2016).

2.2 Knowledge Process Capability

Knowledge process capability is one of the major resources needed by organizations for growth and survival in twenty first century. Failure to use knowledge obtained from learning and the inability of organizations to code and document knowledge coupled with the absence of incentives to share knowledge, are the most important factors in the forgetting of knowledge in organizations (Ershadi & Dehdazzi, 2019). Knowledge process capability is a managerial activity that involves employees in the acquisition, storage, sharing and utilization of knowledge in organizations. In other words, organizations may involve individuals and groups in different aspect of knowledge management process at any

given period. This study defines knowledge process capability as a systematic process of acquiring, storage, sharing and application of knowledge in strategic thinking, planning and decision making process to enhance performance.

Studies have presented different measures of knowledge process capability. For example, De Long (1997) presents knowledge process capability model to include knowledge capture, transfer, and use. Knowledge acquisition, collaboration, integration, and experimentation dimensions were modelled by Leonard and Sensiper (1995). Teece (1998) developed measures that comprise knowledge creation, transfer, assembling, integration and exploitation. Skyrme and Amidon (1998) and Spender (1996) presented a model of knowledge process, thus capability as creation, transfer, and usage of knowledge. Gold et al. (2001) regroup the foregoing dimensions of knowledge process capability into knowledge acquisition, conversion, application and protection.

The framework of knowledge process capability developed by Alavi and Leidner (2001) contains knowledge creation, storage/retrieval, transfer and application. The forgoing classifications were supported by other scholars such as Liu, Chen and Tsai (2004) who identify knowledge process capability as obtaining, refining, storing and sharing. Therefore, the current study adopts measures of knowledge process capability which comprise knowledge acquisition, storage, sharing and application presented by Alavi, et al. (2001).

2.2.1 Knowledge Acquisition

The concept of knowledge acquisition refers to the ability of organizations to acquire new knowledge within and outside the organization to address extant and emerging challenges in order to enhance organizational performance (Gold et al., 2001; & Nonaka, 1994). Cho & Korte (2014) define knowledge acquisition as managerial activity for generation of ideas, knowledge, and skills within and outside the organization that enhances stock of existing knowledge. In this regard, knowledge acquisition encompasses fusion, adaptation, dedicating of organizational resources and building of knowledge networks (Choo, 2003). Different terms have been used to describe knowledge acquisition such as seek, generate, create, capture, collaborate, accumulate, etc. Thus, this study conceptualizes knowledge process as a consistent and procedural managerial activity concerned with obtaining useful data, information and knowledge relevant to the objectives of organizations.

Knowledge acquisition could be measured using identification, transmission, processing, storage and reinterpretation of knowledge (Nieminen, 2007). The components of knowledge acquisition were found to be linked to organizational performance. Moreover, knowledge acquisition is discovered to have played a significant role in enhancing performance of organizations (Kordab, Raudeliuniene, Meidute-Kavaliauskiene, 2020). These studies were limited to specific sectors and geographical areas, but did not include the pension sub-sector of the economy.

2.2.2 Knowledge Storage

Knowledge is a key resource of organizations that should be acquired, stored, retrieved and utilized at appropriate time for organizational performance. Darr (1995) explains that although organizations create knowledge and learn, they also forget knowledge acquired, meaning that, knowledge acquired, if not adequately stored, may be

lost which could negatively affect performance of organizations.

More so, Alavi (2000) posits that the creation of new knowledge within and outside the organization is not enough, but having adequate mechanisms on ground to store and retrieve the knowledge created when the need arises are significant to performance of organizations. Rao (2012) conceptualizes knowledge storage as the process of organizing, collecting and preservation of knowledge in system and tools, to be updated and easily retrieved for utilization by employees. Knowledge storage is referred to as a means of storing existing knowledge, acquired and created. Kordab, et al. (2020) define knowledge storage as the recording and preservation of extant organizational knowledge in database and repositories to increase efficiency in discharging responsibilities, achieving knowledge strategy and enhancing organizational performance. This definition is adopted to guide the conduct of the current study.

In a related development, Stein and Zwass (1995) conceptualizes organizational memory as influence of past event, knowledge and experience on current organizational activities. Organizational memory integrates information across organizational boundaries and controls current activities to avoid past mistakes (Jannex & Olfman, 2002). Organizational memory is significantly linked to organizational performance (Nafei, 2019), which means performance of organization was influenced by storage and retrieval of knowledge (Sadq, Othman & Mohammed, 2020). Abualoush, Masa'deh, Bataineh & Alrowwad (2018) found a positive link between knowledge storage and organizational performance. Therefore, it is assumed that knowledge storage may influence organizational performance in the pension subsector.

2.2.3 Knowledge Sharing

Having acquired, stored and retrieved knowledge, it is significant for the knowledge to be disseminated for consumption by individuals and organizations to enhance performance. Knowledge sharing is one of the most essential processes of knowledge management in organizations on the grounds that it as the flow or transfer of knowledge between individuals, groups or organizations using different communication channels (Gupta & Govindarajan, 2000; & Alavi et al., 2001). Gharakhani and Mousakhani (2012) define knowledge sharing as social and cultural interaction which involves the exchange of experiences, ideas, and skills between individuals and, between and within units, sections, departments and organizations. Coakes (2003) explained that knowledge sharing is the act of delivering the right knowledge to the right person at the right time in appropriate form and at appropriate cost.

Adequate sharing of knowledge in organizations is predicated on the existence of efficient processes, instruments and techniques such as reports, manuals, training, formal meetings and on-the-job or informal learning, informal conferences, seminars and sessions that take place outside working hours (Albream & Maraqa, 2019). This study views knowledge sharing as the exchange of new knowledge between different groups, individuals, parties, units, sections and departments using appropriate instruments to enhance organizational performance. Moreover, knowledge sharing significantly influences organizational performance (Sadq, et al 2020). Thus, we propose that knowledge sharing may facilitate organizational performance in the pension subsector.

2.2.4 Knowledge Application

The objective of knowledge application is to utilize knowledge in practical terms. It means that the success of knowledge management in any organization is determined by the extent to which knowledge acquired, stored and disseminated is adequately utilized to enhance performance of the organization. According to Ngah, Tai and Bontis (2016) generating knew knowledge is useless unless it is applied to enhance organizational performance. This shows that application of knowledge is the ability not only to acquire and assemble knowledge, but also to use knowledge for decision making and problem solving in organizations (Gold et al., 2001).

Furthermore, the value of organizations' knowledge is applied and seen in their activities, processes, products and services through capacity development of their employees and encouraging employees to be creative and innovative (Mills, et al., 2020). This indicates that adequate application of knowledge enhances the production of goods and services that will add value to the needs of customers and organizational performance. In light of the foregoing, the present study conceptualizes knowledge application as utilization of insights, ideas, data, skills, expertise, competencies and experiences for effective and efficient conduct of organizational activities towards enhanced performance. Hence, the performance of organization is influenced by knowledge application (Iqbal, Latif, Marimon, Sahibzada & Hussain, 2018; & Sadq, et al., 2020). Thus, we suggest that knowledge application may influence organizational performance in the pension subsector.

2.3 The Concept of Employee Involvement Culture (EIC)

The concept of culture has been viewed in different ways by different scholars since its evolution in the mid-twentieth century. However, the scholars believed that culture consists of values, beliefs and assumptions which are shared or communicated among members (Tierney & Schein, 1986). Denison et al. (1995) developed a model that exposed the extent to which culture helps to explain differences in performance of organizations (Sparrow, 2001). The model identified employee involvement culture as one of the essential elements in enhancing organizational performance.

Employee involvement culture gives employees the opportunity to participate in determining the direction and operations of the organization. It is a conscious and intended effort of management to provide role-expanding opportunities for individuals or groups at middle and lower levels in the organization to participate and or contribute in one or more areas of organizational performance (Glew, O'Leary-Kelly, Griffin & Van Fleet, 1995). Sofijanova and Zabijakin-Chatleska (2013) view employee involvement as the participation of employees in decision making, problem solving and increased autonomy in work process.

Kumari and Kumari (2014) explain that employee involvement culture is the empowerment and participation of employees in decision making on activities suitable to their ranks in the organization. It is a joint decision making process between the management and subordinates. Employee involvement culture is determine by transparent communication, employee-focused leadership, and strong inter-personal relationship in organizations (Engelen, Flatten, Thalmann & Brethel, 2014). In the light of the foregoing, this study conceptualizes employee involvement culture as deliberate management effort aimed at expanding responsibilities of

employees or group of employees at different levels to discharge their responsibilities toward enhancing organizational performance.

2.4 Empirical Review

2.4.1 Knowledge Acquisition and Organizational Performance

El Kharraz and Boussenna (2021) conducted a study on application of knowledge management process and organizational performance through the moderating effect of culture where data was retrieved from eighty eight (88) researchers. The result shows that knowledge acquisition correlates with organizational performance. The result could be judgemental on the grounds that the study concentrates more on acquisition of knowledge in the universities thereby ignoring other relatively significant variables such as employee involvement culture which would have made additional contributions. This signifies the existence of a huge gap which the current study intends to fill.

In the same vein, Sadq, Othman and Mohammed (2020) conducted another landmark study on the impact of knowledge management process on organizational performance (effectiveness) predicated on attitude of managers' in private banks in the Erbil city in Kurdistan region of Iraq using a population of eighty (80) managers and supervisors as units of analysis. The study demonstrated that knowledge acquisition positively influences organizational performance. However, the population of eighty (80) may not be representative enough to draw a robust conclusion. Thus, the result is judgemental. Equally, it avoided the moderating role of employee involvement culture on the relationship between the constructs. This reveals a huge gap which the current study set out to fill given the introduction of employee involvement culture as a moderator.

In addition, Wijaya and Suasih (2020) analysed the impact of knowledge management process on the performance of silver craft SMEs through the mediating role of competitive advantage where knowledge acquisition was considered as one of the components of knowledge management. The result showed that knowledge acquisition negatively influences organizational performance. The study recommended, among others, that future studies should consider industry classification based on company size, company age, business type, process type, technology type and control variable. This is because the study was limited to one type of creative industry that has a different character from other types of industry. Also, it did not consider knowledge storage as a measure of knowledge management which could have added value to organizational performance. Thus, the result is judgemental. This constitutes a fundamental gap that the current study intends to fill.

2.4.2 Knowledge Storage and Organizational Performance

In a study, El Kharraz and Boussenna (2021) tested the existence of correlation between the application of knowledge and organizational performance through the moderating effect of culture of researchers. The result suggests that all the knowledge storage significantly influences organizational performance. Despite its contribution to literature, the result is not explicit given that the study lays more emphasis on knowledge storage process in universities thereby ignoring other relatively significant variables such as the moderating role of employee involvement culture which would have made additional contributions. Thus, this indicates a huge

gap which will be addressed by the current study.

Again, Sadq, Othman and Mohammed (2020) investigated the impact of knowledge management process on organizational performance based on managers' attitudes in private banks in Iraq. The analysis showed that knowledge storage has a positive and significant relationship with organizational performance (t=2.489 and t-0.013). The study focused on managers and supervisors in the banking sector excluding other relatively significant levels of staff who would have made robust contributions. Thus, caution must be exercised in generalizing the result. Moreover, the study ignored the moderating role of employee involvement culture on the relationship between the constructs. This indicates a significant gap which the current study will fill by introducing employee involvement culture as a moderator.

Conversely, Bachir, Omar, Kenza and Yahia (2022) investigated the impact of knowledge management process on organizational performance of electricity producing companies in Ashwat-Jijel where knowledge storage was considered as one of the major components. The study revealed that knowledge storage negatively correlates with organizational performance. Nevertheless, care must be taken in generalizing the result of the study given that it ignored the contributions of other equally important subjective measures of organizational performance. Moreover, the study has not been able to gauge the impact of other equally significant constructs such as the moderating role of employee involvement culture which could influence organizational performance. These gaps will be addressed by the current study.

2.4.3 Knowledge Sharing and Organizational Performance

Danko and Crhová (2025) investigated the relationship between knowledge sharing and organizational performance in knowledge-intensive business services. The study employed PLS-SEM to analyse data collected from 237 respondents in two round questionnaire survey of companies randomly selected in Czech Republic. The result showed that knowledge sharing significantly influences organizational performance. This result cannot be generalized given that it ignored other equally important subsectors which would have made a contribution. More so, the study did not incorporate the moderating role of employee involvement culture which would have strengthened or weakened the relationship between the constructs. The current study will address these huge gaps.

More so, Sadq, Othman and Mohammed (2020) examined the relationship between knowledge management process and organizational performance where knowledge sharing was considered as one of the major dimensions. Data retrieved from eighty managers and supervisors of private banks in Iraq was analysed using PLS-SEM. The result showed that knowledge sharing significantly influence organizational performance. The result could be judgemental given that the study excluded other equally important sectors such as education, health and pension.

Ang, Fabeil and Pang (2022) examined the influence of tacit and explicit knowledge sharing on organizational performance among manufacturing companies in Malaysia. The study obtained data from production managers of 145 manufacturing companies. The study found that tacit and explicit knowledge have significant influence on organizational performance in

manufacturing companies in Malaysia. Although the study has provided fundamental knowledge for researchers, the finding cannot be generalized on the grounds that the study ignored other equally important sectors such as the pension sector. This huge gap will be filled by the current study.

However, Bachir, Omar, Kenza and Yahia (2022) examined the impact of knowledge management process on organizational performance of electricity producing company in Ashwat-Jijel. The result showed that knowledge sharing negatively influences organizational performance. Despite its contribution to literature, the result is not explicit. This is because the study concentrated on universities, ignoring other relatively significant subsectors. Thus, the findings cannot be generalized. This signifies the existence of a huge gap which the current study will fill.

2.4.4 Knowledge Application and Organizational Performance

Ogunbanwo, Okesola and Sheryl (2021) empirically examined the relationship between knowledge management process capability and academic performance of universities in Nigeria. The result shows that knowledge application negatively influenced academic performance of universities. Nonetheless, even though it has contributed to the literature, the study has not been able to gauge the influence of employee involvement culture as a moderator on the relationship between the constructs which may have made contributions. This leaves a wide gap which the current study will address.

Again, Sadq, Othman and Mohammed (2020) explored the relationship between knowledge management process and organizational performance in private banks in Kurdistan region of Iraq. The finding suggest that knowledge application ($\beta = 0.150$, $p \leq 0.05$) positively influences organizational performance. The study centred on managers and supervisors in the banking sector without considering other levels of staff to enhance the quality of the data. Thus, the result is judgemental. Similarly, the study avoided the moderating role employee involvement culture will play among the variables which could make more contribution.

In another landmark study, Bachir, Omar, Kenza and Yahia (2022) used a survey design to examine the impact of knowledge management process on organizational performance: A case study of electricity producing company in Ashwat-Jijel. In the study, knowledge application was considered as one of the major components of knowledge management. The Authors' discovered that knowledge application has negative correlation with organizational performance. However, caution must be exercised in generalizing the result of the study on the grounds that it isolated the influence of other equally important subjective measures of organizational performance while concentrating on objective measures like growth rate, return on total asset and equity as the only measures of organizational performance. Also, the study has not been able to gauge the impact of other equally significant constructs such as the moderating role of employee involvement culture which could influence organizational performance. These gaps will be filled by the current study.

2.5 Moderating Role of Employee Involvement Culture (EIC)

Organizational culture is a system of values, beliefs, behaviours and ideas instituted by organizations to guide employees on the operations of the organization. It drives the organization forward and establishes operational ecosystem in which every employee tries to achieve the goal set by the organization

(Narayana, 2017). This indicates that understanding organizational culture is significant for the employees, stakeholders and organizations at large (Djangone & El-Gayar, 2021). This is because it is needed to facilitate organizational efficiency, effectiveness, responsiveness and equity (Norman, Paramansyah & Abdan, 2022).

A study by Denison (1990) demonstrates how cultural dimensions work in organizations at individual and organizational level. This model reduced cultural dimensions to consistency, adaptability, involvement and mission. In general, studies have revealed that cultural dimensions influence organizational performance and have been conceptualized and modelled as moderators of organizational performance (Yang, Zhang, Xiao, Liu, Chai & Zhou, 2020; Morched & Jarboui, 2020). However, the current researcher is not aware of any study that used employee involvement culture as a moderator on the relationship between the constructs. This suggests the need to concentrate on the extent to which organizational culture dimensions such as employee involvement culture may moderate interaction between knowledge process capability and organizational performance.

Moreover, employee involvement culture influences organizational performance (Ismail, Imran & Al Hosni, 2021, Faeq, 2022). Thus, organizations must strive to facilitate involvement and participation of their employees in knowledge management process.

This study introduces employee involvement culture as a moderator on the relationship between knowledge process capability and organizational performance of PFAs in Nigeria. This is because PFAs may require their employees to be involved in the process of knowledge acquisition, storage, sharing and application. Consequently, the study suggests that employee involvement culture may moderate the relationship between knowledge process capability (acquisition, storage, sharing & application) and organizational performance of PFAs in Nigeria.

2.6 Underpinning Theory: Knowledge-Based View (KBV)

Knowledge-Based View (KBV) theory propounded by Grant (1996) states that organizational performance could be enhanced effectively by acquiring, storing, managing, sharing and application of knowledge resources through adequate processes. Knowledge management is one of the most significant, unique and scarce strategic resources of organizations (Grant, 1996). Knowledge process capability is the ability to acquire, protect and motivate staff to share knowledge through appropriate infrastructure for optimal organizational performance (Liu, Chen & Tsai (2004). It enhances efficiency, effectiveness and responsiveness of organizations (Lee, Kim, & Kim, 2012). This means that only organizations that efficiently and effectively manage their knowledge would achieve superior performance (Zack, McKeen, & Singh, 2009).

Consequently, KBV is concerned with knowledge management capabilities which deal with knowledge acquisition, storage, sharing and utilization of knowledge to enhance organizational performance with adequate infrastructure (Kogut & Zander, 1992). This indicates that knowledge processes (acquisition, storage, sharing & utilization) and capability are superior organizational resources that have impact on organizational performance (McEvily & Chakravarthy, 2002). Knowledge acquisition, storage, sharing and application were discovered to have played significant roles in enhancing

organizational performance (Sadq, et al., 2020). This study postulates that organizational performance may be influenced by knowledge process capability through moderating role of employee involvement culture.

The model of the present study suggests that KBV theory may explain the impact of knowledge process capability on organizational performance through the moderating role of employee involvement culture. The theory considers knowledge process capability proxies (acquisition, storage, sharing and utilization) as knowledge management resources that further explain organizational performance. Similarly, since organizations absorb internal and external knowledge, they can be combined with pre-acquired knowledge to create new knowledge through transfer and transformation of knowledge. As such, the theory contends that transfer and transformation of knowledge in organizations requires the interplay of knowledge acquisition, storage, sharing and application components of knowledge process capability.

In the light of the forgoing review of knowledge-based view theory, it is assumed that the theory would support knowledge process capability through employee involvement culture as a moderator to influence organizational performance.

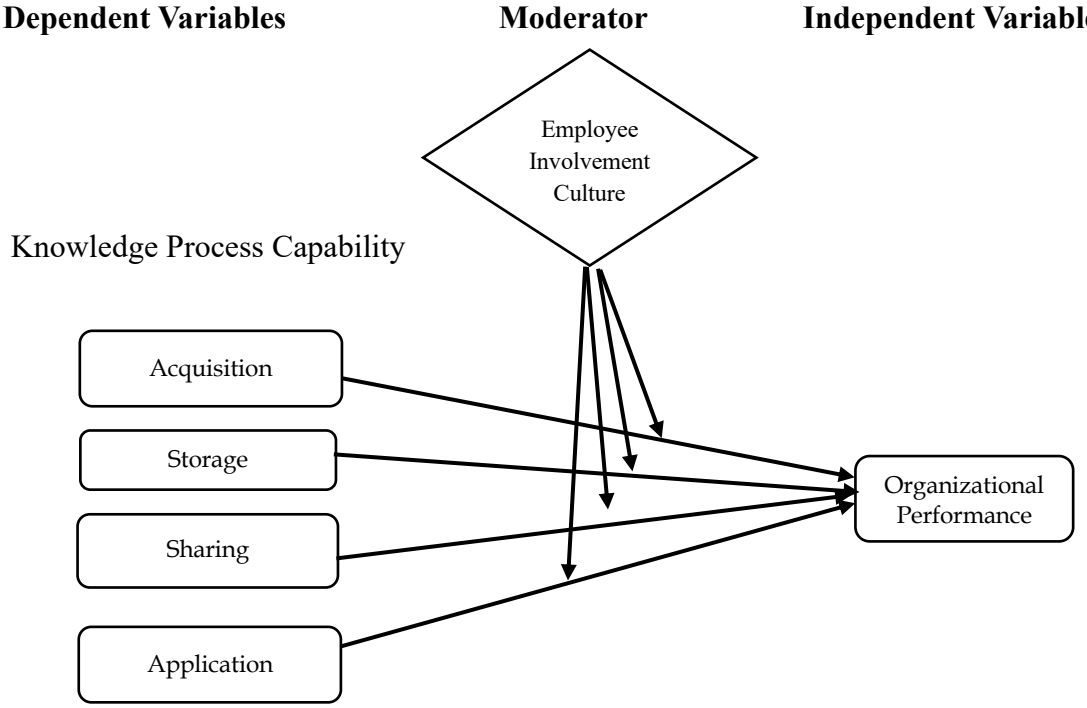


Figure 2.1: Conceptual Framework of the Study

3.0 Conclusion

The extant literature has revealed that the interaction between knowledge process capability and employee involvement culture influences organizational performance negatively or positively depending on the measures of knowledge process capability employed in the study. Organizational performance is the bedrock of each organization. This is because it leads to attainment of goals and objectives. The success of organizations depends largely on involvement of employees in knowledge management process. Therefore, this paper seeks to contribute to development

of theory on knowledge process capability, employee involvement culture and organizational performance. The paper suggests empirical investigation of knowledge process capability, employee involvement culture and organizational performance in pension industry in Nigeria. It proposes investigation of direct effect of knowledge process capability on organizational performance through the moderating effect of employee involvement culture. This paper therefore fills the literature gap through provision of data on relationship between knowledge process capability, employee involvement culture and organizational performance within the context of pension subsector in Nigeria. This study practically provides background for enhancing effective operations of the pension subsector, especially the PFAs in Nigeria. The model of this study will guide stakeholders in the pension subsector to understand the knowledge process capability that facilitates performance of organizations and contribution of employee involvement culture if adopted in the pension subsector. In this regard, it is suggested that, in the future, an empirical investigation of the extent to which employee involvement culture may moderate the interaction between knowledge acquisition, storage, sharing, application, and organizational performance should be conducted.

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EXTERNAL PUBLIC DEBT AND DEBT SERVICING IN NIGERIA: EVIDENCE FROM A NONLINEAR ARDL MODEL

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Abstract
This study examines the asymmetric effects of external public debt, inflation, exchange rate, and fiscal deficit, on Nigeria's debt servicing obligations using annual time-series data spanning 1982–2024 sourced from the World Development Indicators (WDI) and the Debt Management Office (DMO). The empirical analysis proceeds in several stages. The descriptive results indicate that debt servicing and external public debt are relatively stable, whereas inflation and exchange rate exhibit significant volatility. The BDS test confirms the presence of nonlinear dynamics in most variables, justifying the use of a nonlinear modeling framework. The unit root tests reveal a mixed order of integration with evidence of structural breaks, supporting the suitability of the NARDL approach. The bounds test confirms a long-run co-integration relationship among the variables. Empirical findings reveal significant asymmetric effects in both the short and long run. Positive shocks to external public debt, inflation, exchange rate depreciation, and fiscal deficits increase debt servicing obligations, while negative shocks generally have weaker or insignificant mitigating effects. Exchange rate and fiscal variables exert strong short-run impacts, highlighting the economy's sensitivity to macroeconomic instability. The dynamic multiplier analysis further confirms asymmetric adjustment paths, with positive shocks having more persistent effects than negative shocks. The study concludes that Nigeria's debt servicing challenges are driven by external debt accumulation, exchange rate volatility, inflationary pressures, and persistent fiscal deficits. It recommends strengthening fiscal discipline, improving exchange rate management, enhancing domestic revenue mobilization, and adopting prudent external borrowing strategies to ensure debt sustainability and macroeconomic stability.

Keywords: debt servicing, external public debt, NARDL, fiscal deficit, exchange Rate, Inflation.

1.0 Introduction

Public debt and debt servicing have become central macroeconomic worries across both developed and developing economies, particularly in the wake of recurrent global shocks such as the 2008 global financial crisis, the COVID-19 pandemic, and sustained commodity price volatility. Governments increasingly resort to borrowing to finance fiscal deficits, stabilize economic activity, and support development

objectives. However, rising public debt has been accompanied by escalating debt servicing obligations, which often crowd out critical public expenditure on infrastructure, health, education, and social protection. International financial institutions have consistently warned that excessive debt servicing burdens can undermine macroeconomic stability, erode fiscal space, and weaken long-term growth prospects (IMF, 2022). The challenge of debt servicing is especially acute in developing and resource-dependent economies where external public debt constitutes a substantial share of total public borrowing. External debt is largely denominated in foreign currencies, making its servicing highly sensitive to exchange rate movements, inflationary pressures, and global financial conditions. Exchange rate depreciation raises the domestic currency cost of servicing foreign liabilities, while persistent fiscal deficits and inflation further constrain governments' repayment capacity. Consequently, economies with narrow export bases and volatile foreign exchange earnings are particularly vulnerable to external debt-induced fiscal stress (Baldacci et al., 2015).

This vulnerability is evident across Sub-Saharan Africa, where many countries rely heavily on external borrowing to bridge financing gaps arising from weak domestic revenue mobilization, low savings, and large infrastructure deficits. According to the World Bank (2021), debt service payments in the region more than doubled between 2010 and 2020, driven largely by increased external borrowing and adverse exchange rate movements. Countries such as Ghana, Kenya, and Zambia have experienced severe fiscal stress linked to mounting external debt servicing obligations, culminating in debt distress and restructuring efforts. These developments highlight the importance of understanding how external public debt interacts with key macroeconomic variables to shape debt servicing dynamics in developing economies.

Nigeria represents a particularly important case in this discourse given its rising external debt exposure and high debt service-to-revenue ratio. Data from the Debt Management Office (DMO, 2023) show that Nigeria's total public debt exceeded ₦87 trillion in 2023, with external debt accounting for a growing share. More critically, debt servicing consumed over 90% of government revenue in 2022, highlighting severe fiscal pressure. Persistent fiscal deficits, exchange rate volatility, rising inflation, and sluggish economic growth have further increased the cost of servicing external obligations. While external borrowing is often used to finance development and bridge infrastructure gaps, the growing share of revenue devoted to debt servicing raises serious concerns about fiscal sustainability and development financing (World Bank, 2023).

A growing body of empirical literature has examined the determinants of debt servicing in Nigeria, emphasizing the roles of exchange rate depreciation, inflation, fiscal imbalance, and economic growth (Lawal et al., 2018; Okon & Effiong, 2019; Ogunyemi, 2020; Adeleke & Ajayi, 2021). However, most existing studies rely on linear econometric

frameworks, implicitly assuming that positive and negative changes in key macroeconomic variables exert symmetric effects on debt servicing. This assumption is particularly restrictive in the context of external public debt, where exchange rate depreciation may exacerbate debt servicing costs more sharply than appreciation reduces them, and inflationary shocks may have stronger adverse effects than disinflationary episodes.

From a theoretical perspective, the debt overhang and crowding-out hypotheses suggest that excessive external debt servicing obligations can discourage private investment, weaken investor confidence, and constrain long-run growth (Iyoha, 1999; Sulaiman & Azeez, 2012). In contrast, Keynesian and endogenous growth theories argue that borrowing can enhance growth if efficiently allocated to productive and export-generating investments. In Nigeria, however, worries persist that a significant portion of borrowed funds is directed toward recurrent expenditure rather than growth-enhancing projects, thereby intensifying long-term debt servicing pressures (Onwuka & Ikpefan, 2020; Udoh & Udeaja, 2021).

Despite successive debt management initiatives, Nigeria continues to allocate a disproportionate share of its revenue to servicing external debt, leaving limited fiscal space for capital investment and social spending. This situation has intensified debates regarding the sustainability of Nigeria's debt trajectory and its implications for macroeconomic stability, poverty reduction, and economic development (Audu & Okumoko, 2018). Moreover, the inconclusive empirical evidence on the debt–growth–debt servicing nexus underscores the need for more robust analytical approaches capable of capturing nonlinear and asymmetric relationships among macroeconomic variables (Pesaran et al., 2001).

Against this backdrop, the persistent rise in Nigeria's external public debt, coupled with escalating debt servicing obligations and macroeconomic fragility, reveals a critical research gap. This study addresses this gap by employing a Nonlinear Autoregressive Distributed Lag (NARDL) framework to examine the asymmetric effects of external public debt, inflation, exchange rate, fiscal deficit, and economic growth on Nigeria's debt servicing dynamics over the period 1982–2024. The findings are expected to provide policy-relevant intuitions into external debt sustainability and macroeconomic management in Nigeria. The aim of this study is to examine how external public debt, inflation, exchange rate, and fiscal deficit affect Nigeria's debt servicing obligations, with a particular focus on capturing their asymmetric (nonlinear) short- and long-run effects using the NARDL approach.

2.0 Literature Review

A growing body of empirical studies have examined the determinants of debt servicing obligations in developing economies, with particular emphasis on external public debt, inflation, fiscal deficits, and exchange rate dynamics. These studies generally acknowledge that the burden of servicing external debt

is shaped not only by the volume of debt but also by macroeconomic instability, currency movements, and fiscal management practices. External public debt refers to borrowings by government from foreign sources, typically denominated in foreign currencies, and is often used to finance budget deficits and development projects (Krugman, 1988; Sachs, 1989). While such debt can support investment and growth, its sustainability depends on macroeconomic conditions, particularly inflation, exchange rate stability, and fiscal discipline. Inflation, defined as a persistent rise in the general price level, erodes purchasing power and increases nominal interest rates, thereby raising the cost of debt servicing (Egwaikhide, 1999). Fiscal deficits occurring when government expenditure exceeds revenue often necessitate borrowing, contributing to debt accumulation and future servicing obligations (Sulaiman & Azeez, 2012). Exchange rate dynamics are particularly critical in the context of external debt, as currency depreciation increases the domestic currency cost of servicing foreign-denominated debt, thereby worsening fiscal pressure (Aliyu & Usman, 2013). Debt servicing itself represents the repayment of principal and interest on accumulated debt and serves as a key indicator of fiscal sustainability; high servicing burdens can crowd out public investment and constrain economic growth (Adegbite et al., 2008). Collectively, these variables are interrelated, with macroeconomic instability amplifying the burden of external debt servicing, especially in developing economies like Nigeria.

This study is anchored on the Debt Overhang Hypothesis (Krugman, 1988; Sachs, 1989), which suggests that excessive external debt discourages investment and growth, especially when exchange rate depreciation and inflation increase servicing costs. It also draws on the Twin Deficit Hypothesis, linking fiscal deficits to external imbalances and rising debt burdens. The study incorporates asymmetry theory, recognizing that increases and decreases in external debt, exchange rate, and inflation may have unequal effects on debt servicing. This motivates the use of the Nonlinear Autoregressive Distributed Lag (NARDL) model (Shin et al., 2014).

Recent studies provide important intuitions into these dynamics. Ngbede and Philip (2025) examined the relationship between budget deficit financing and inflation in Nigeria using ECM, Johansen co-integration, and FMOLS techniques. Their findings indicate that budget deficit financing did not significantly induce inflation, although reductions in deficits were paradoxically associated with inflationary pressures largely attributed to oil price volatility and security challenges. While their study did not directly model debt servicing, it highlights the fiscal–inflation channel through which external debt servicing pressures may intensify. Similarly, Salisu, Alabbas, and Haladu (2024), employing a nonlinear ARDL framework for the period 1980–2022, found that external debt servicing and exchange rate movements exerted positive long-run effects on economic growth, whereas external debt stock negatively affected output. Their results underscore the asymmetric role of debt servicing and the

importance of allocating borrowed funds to productive investments.

In a related study, Ndu (2024) established that both domestic and external debt servicing significantly affected GDP, concluding that debt servicing in Nigeria has largely been a burden rather than a catalyst for growth. This finding aligns with Yusuf and Mohd (2023), who applied a nonlinear ARDL model for 1980–2020 and reported that while external debt stock positively influenced growth, external debt servicing consistently retarded economic performance, supporting the debt overhang hypothesis. Onwuka and Okorie (2023) further examined the relationship between public debt and debt servicing using a linear ARDL framework and confirmed a significant association, though their approach did not account for possible asymmetric effects.

At the institutional level, the World Bank (2023) provides comprehensive evidence on Nigeria's rising interest-to-revenue ratio, emphasizing the growing vulnerability of public finances to both external and domestic shocks. Udoh and Udeaja (2021), using an asymmetric ARDL approach, show that fiscal deficits have nonlinear inflationary effects in Nigeria, implying that fiscal imbalances can indirectly amplify external debt servicing burdens through rising prices. Similarly, Sani and Nwite (2021) argue that Nigeria's external debt burden undermines growth unless accompanied by credible fiscal and structural reforms, reinforcing sustainability worries raised by multilateral institutions.

Several studies focus explicitly on the growth and servicing implications of external debt. Idris and Aliyara (2022) reported that foreign debt servicing exerted a negative and insignificant effect on GDP, concluding that Nigeria's external debt burden weakens growth performance. Otiko and Iheonkhan (2022) extended this analysis by introducing corruption as a moderating variable, finding that although foreign debt servicing significantly influenced growth, corruption weakened its potential benefits. Similarly, Akanbi, Uwaleke, and Ibrahim (2022) found that external debt servicing had a negative but insignificant effect on growth, suggesting a resource-depletion effect. Using Ethiopian data, Awol (2022) showed that while external debt reduced growth, debt servicing exerted a positive influence, highlighting the context-specific nature of debt outcomes.

Earlier Nigerian studies also emphasize the macroeconomic channels through which external debt servicing operates. Adegboyega (2021) found that debt servicing and exchange rate volatility negatively affected growth, recommending frameworks that compare returns on borrowed funds with servicing costs. Edeminam (2021) showed that debt servicing relative to GDP exerted a negative effect on growth in both the short and long run. Grace, Oluwayemisi, and Femi (2019) corroborated these findings, demonstrating that external debt and debt servicing undermined growth, although exchange rate depreciation occasionally played a mitigating role through export competitiveness.

Onwuka and Ikpefan (2020) linked public debt, exchange rate dynamics, and growth in Nigeria, finding that depreciation and weak growth jointly worsen the debt servicing ratio. Muhammad and Abdullahi (2020), using ARDL techniques, reported that external debt servicing depressed long-run growth and recommended channeling external loans to tradable and infrastructure sectors. Similarly, Audu and Okumoko (2018) showed that rising public debt, weak non-oil revenue, and high yields create a feedback loop that elevates debt servicing costs and suppresses growth.

Earlier works reinforce the centrality of exchange rate and inflation channels. Orjinta and Nwadialor (2016) found that external debt servicing positively influenced growth, while Ogbeifin and Aigbokhaevbolo (2016) showed that sustained naira depreciation significantly amplified external debt servicing burdens. Aliyu and Usman (2013) demonstrated that exchange rate misalignment worsened Nigeria's debt-to-revenue ratio, heightening fiscal stress. Sulaiman and Azeez (2012) argued that while debt servicing constrains short-run growth, external borrowing can enhance long-run performance if efficiently utilized. Adegbite, Ayadi, and Ayadi (2008) similarly found that debt servicing is shaped by debt accumulation, fiscal deficits, inflation, and exchange rate volatility.

Foundational studies further highlight Nigeria's vulnerability to macroeconomic instability. Okonjo and Osafo (2007) noted that inflation-driven borrowing costs can trap governments in refinancing cycles that inflate debt servicing obligations. Ezeabasili, Isu, and Mojekwu (2011) and Obi and Nurudeen (2010) showed that exchange rate volatility worsens external debt servicing pressures. Earlier still, Egwaikhide (1999) established that inflationary pressures increase nominal interest rates, indirectly raising debt servicing costs, a finding that remains relevant for contemporary Nigeria.

Beyond Nigeria, Babu et al. (2014) found across the East African Community that external debt negatively affected growth in economies with weak export capacity, suggesting that exchange rate weakness and low diversification magnify debt servicing pressures. These regional findings reinforce worries about Nigeria's exposure to external shocks given its dependence on oil exports.

Despite extensive empirical studies on Nigeria's debt dynamics, important gaps remain. Existing evidence shows that external debt stock often exerts mixed or positive effects on growth, while debt servicing consistently undermines economic performance, as documented by studies such as Yusuf and Mohd (2023), Ndu (2024), and Idris and Aliyara (2022). However, most of these studies focus primarily on the debt–growth nexus rather than explicitly modelling debt servicing as the core fiscal burden. In addition, the dominant use of linear econometric models assumes symmetric effects of macroeconomic variables, thereby overlooking potential asymmetries particularly the likelihood that exchange rate depreciation worsens debt servicing more than appreciation improves it. Furthermore, even studies

that adopt nonlinear approaches tend to emphasize growth outcomes and rarely integrate key macroeconomic variables external debt, inflation, exchange rate, fiscal deficit, and economic growth within a unified framework. This study addresses these gaps by applying the NARDL model to capture the asymmetric and dynamic effects of these variables on Nigeria's debt servicing obligations.

3.0 Methodology

This study adopts an econometric framework to examine the relationship between debt servicing and selected macroeconomic variables in Nigeria. Adapting Onwuka and Okorie (2023), the study specifies debt servicing as a function of external public debt, inflation, exchange rate, and fiscal deficit:

$$DSt = f(EPDt, INFt, EXRt, FDt) \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots 3.1$$

The econometric form of the model is expressed as:

$$DS_t = \alpha_0 + \beta_1 EPD_t + \beta_2 INF_t + \beta_3 EXR_t + \beta_4 FD_t + \varepsilon_t \dots\dots\dots\dots\dots\dots\dots 3.2$$

Where:

DS_t = Debt Servicing Obligations

INFt = Inflation Rate

EPD_t = External Public Debt

EXR_t = Exchange Rate

FD_t = Fiscal Deficit

Unlike earlier studies that relied on linear ARDL models, this study applies the NARDL framework to decompose external public debt, inflation, and exchange rate into their positive and negative partial sums. This allows the model to capture asymmetric short-run and long-run effects of macroeconomic shocks on Nigeria's debt servicing obligations.

3.2 Estimation Techniques

The Brock–Dechert–Scheinkman (BDS) test developed by William Brock et al. (1996) is utilized to determine whether the variables exhibit nonlinear dependence.

The BDS test statistic is given as:

$$(\sqrt{n-m+1})\frac{b_{m,n}(\epsilon)}{\delta_{m,n}(\epsilon)} \rightarrow N(0,1)$$

Where the variance is given as

$$\sigma^2_{m,n}(t) = 4(k^m + 2\sum_{j=1}^{m-1} k^{m-j} c_1^{2j} + (m-1)^2 c_1^{2m} - m^2 k c_1^{2m-2}$$

Here , c_1 can be estimated using $c_{1,n}$. The *k* is the probability of any triplet of points lying within (ϵ) of each other, and is estimated by counting the number of sets satisfying the sample condition:

$$k_n(\epsilon) = \frac{2}{n(n-1)(n-2)} \sum_{t=1}^{n} \sum_{s=t+1}^{n} \sum_{r=s+1}^{n} \quad (1)$$

The hypothesis is that H_0: the series follows linear dependence

H_1: the series follows nonlinear dependence

To account for structural changes in Nigeria's economy (such as Debt reforms/relief, exchange and inflation rate), the Augmented Dickey-Fuller (ADF) unit root test with structural break is hired.

The model is specified as:

$$\hat{y}^*_{t=} \sum_{i=0}^{k} \omega_i D_{t-i}(T_b) + \alpha \hat{y}^*_{t-1} + \sum_{i=1}^{k} c_i \Delta \hat{y}^*_{t-1} + u_t \quad \ldots\ldots\ldots\ldots \quad (2)$$

$$\hat{y}^*_{t=\alpha y_{t-1}+} \sum_{i=1}^{k} c_i \Delta \hat{y}^*_{t-1} + u_t \quad \ldots\ldots\ldots\

4.0 Results and Discussion

4.1 Descriptive Analysis

The descriptive statistics show that debt servicing (LDS) and external public debt (EPD) exhibit relatively low variability, as indicated by their small standard deviations (0.31 and 0.24) and near-normal distributions, supported by skewness, kurtosis, and Jarque–Bera probabilities (0.41 and 0.72). This suggests stability in Nigeria's debt servicing obligations and external debt over the study period. In contrast, inflation (INF) and exchange rate (EXR) display high volatility and non-normality, with inflation recording a high standard deviation (5.10), strong positive skewness, and significant Jarque–Bera p-value (<0.01), while the exchange rate also shows substantial dispersion and mild non-normality. Fiscal deficit (FD) exhibits moderate variability with an approximately normal distribution. Thus, the descriptive results indicate that macroeconomic instability in Nigeria is driven more by inflation and exchange rate fluctuations than by debt-related variables

Table 4.1: Descriptive Statistics

Statistics	LDS	EPD	INF	EXR	FD
Mean	9.412387	10.482911	12.58742	292.1468	18.90231
Median	9.356842	10.495220	12.10450	281.9035	18.41762
Maximum	10.02146	11.04137	29.18000	472.8500	29.00430
Minimum	8.864219	9.982541	6.540000	154.2200	10.51840
Std. Dev.	0.309274	0.241113	5.102846	85.73419	4.384762
Skewness	0.468512	-0.041392	1.712368	0.847219	0.536184
Kurtosis	2.517604	3.483215	5.468271	3.148937	2.987516
Jarque-Bera	1.782441	0.658317	24.90612	5.693418	2.031784
Probability	0.410089	0.719733	0.000002	0.058073	0.361971
Sum	404.7326	450.7672	541.2590	12562.31	813.7983
Sum Sq. Dev.	3.968451	2.404972	1102.641	306598.2	805.4631
Observations	43	43	43	43	43

Source: *Researchers' computation (2026)*

4.2 Nonlinearity Test

As a preliminary step, the study examines whether the series exhibit linear or nonlinear behavior using the Brock–Dechert–Scheinkman (BDS) test. This is essential in guiding the choice of an appropriate estimation technique. The results in Table 1 show that all variables (LDS, EPD, INF, EXR, GDPr and FD) have statistically significant BDS statistics, with probability values less than 0.05. except GDPr whose p-value is more than 0.05. This leads to the rejection of the null hypothesis of linear dependence, indicating that most of the series exhibit nonlinear dynamics.

Table 4.2 BDS Nonlinearity Test

Variables	Dimension	BDS Statistic	Std. Error	z-Statistic	Prob.

LDS	2	0.158804	0.009409	16.87737	0.0000
EPD	2	0.147397	0.011065	13.32097	0.0000
INF	2	0.098799	0.023372	4.227194	0.0000
EXR	2	0.028193	0.010799	2.610726	0.0090
FD	2	0.134850	0.007311	18.44469	0.0000

Source: Researchers' computation (2026)

4.3 Unit Root Test Results\

The Zivot–Andrews test, which accounts for structural breaks, shows that some variables (EPD, INF, and FD) are stationary at levels, while others (LDS and EXR) become stationary only after first differencing. The identified break points correspond to major economic events such as debt relief, banking reforms, financial crises, and exchange rate adjustments. On the whole, the mixed order of integration supports the use of ARDL and NARDL models for analysis.

Table 4.3: Zivot–Andrews Unit Root Test Results

Variables	Level Statistics	Break Point	First Difference Statistics	Break Point
LDS	-3.842917	2011	-7.213648	1998
EPD	-5.198462	2008	-7.461992	2010
INF	-5.143827	2006	-6.512774	2006
EXR	-3.596218	2014	-6.041337	2016
FD	-4.185936	2009	-6.307118	2011

Source: *Researchers' computation (2026)*

4.4 NARDL Co-integration Bounds Testing

The results of the bounds test reported in Table 4.3 show that the computed F-statistic (4.582136) exceeds the critical upper bound value [I(1)] at the 1%, 2.5%, 5%, and 10% significance levels. Notably, the F-statistic is higher than the 1 percent upper bound critical value of 3.99, leading to a strong rejection of the null hypothesis of no long-run relationship.

The optimal lag length was selected using the Akaike Information Criterion (AIC), with the lag structure chosen at lag 2, which minimizes the AIC value. This lag length provides a good balance between model fit and parsimony, while adequately capturing the dynamic relationships among the variables and ensuring reliable estimates for the subsequent NARDL bounds testing procedure

Table 4.4: NARDL Co-integration Bounds Test

Statistics	**Value**	**Critical bounds**			
F-statistics	4.694997	1%	2.5%	5%	10%
	I(0) Bound	2.88	2.55	2.27	1.99
	I (1) Bound	3.99	3.61	3.28	2.94

Source: *Researchers' computation (2026)*

This result confirms the existence of a stable long-run co-integrating relationship among debt servicing (LDS), external public debt (EPD), inflation (INF), exchange rate (EXR), and fiscal deficit (FD). Thus, despite short-run fluctuations, these variables move together in the long run, justifying the application of the NARDL framework to capture both symmetric and asymmetric dynamics.

4.5 Long-Run NARDL Results

The long-run estimates reveal strong asymmetric effects of external public debt on debt servicing. Positive shocks to external public debt (EPD_POS) significantly increase debt servicing obligations, while negative shocks (EPD_NEG) reduce them, though with a smaller magnitude. This confirms that increases in external borrowing impose a heavier long-term servicing burden than the relief generated by debt reduction. This finding supports Kumar and Woo (2015), who argue that excessive external debt accumulation intensifies future debt servicing pressures, but contrasts with Ogunmuyiwa (2011), who found insignificant long-run debt effects for Nigeria.

Inflation also exhibits asymmetry. Positive inflation shocks (INF_POS) significantly increase debt servicing obligations, which is consistent with Ajayi and Oke (2012), who emphasized that inflation raises borrowing costs and the domestic currency value of foreign debt service. However, negative inflation shocks (INF_NEG) are statistically insignificant, implying that disinflation does not proportionately ease debt servicing burdens.

Table 4.5 longrun ARDL Estimates

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EPD_POS	0.3584	0.1186	3.0217	0.004**
EPD_NEG	-0.2289	0.1047	-2.1869	0.033**
INF_POS	0.1342	0.0559	2.3998	0.021**
INF_NEG	-0.0916	0.0668	-1.3713	0.177
EXR_POS	0.2847	0.1073	2.6549	0.012**
EXR_NEG	-0.1521	0.0794	-1.9146	0.058*
FD_POS	0.2019	0.0932	2.1658	0.033**
FD_NEG	-0.0826	0.0697	-1.1849	0.242

Source: *Researchers' computation (2026)*

Exchange rate movements similarly display asymmetric behavior. Exchange rate depreciation (EXR_POS) significantly worsens debt servicing costs, corroborating Iyoha (1999), who established that currency depreciation raises external debt service obligations in Nigeria. In contrast, exchange rate appreciation (EXR_NEG) only marginally reduces debt servicing, reflecting rigidity in foreign debt repayment commitments, which is consistent with Were (2001) for African economies.

Finally, positive fiscal deficit shocks (FD_POS) significantly increase debt servicing in the long run, supporting Ezeabasili, Isu, and Mojekwu (2011),

who found that persistent fiscal deficits drive rising public debt obligations. Negative deficit shocks, however, are insignificant, indicating that fiscal consolidation does not immediately reduce servicing pressures.

4.6 Short-Run NARDL Results

The short-run NARDL estimates reveal notable asymmetric adjustment dynamics in Nigeria's debt servicing obligations. In the short run, positive shocks to external public debt (ΔEPD_POS) significantly increase debt servicing obligations, indicating that new external borrowing immediately intensifies servicing pressure. Conversely, negative shocks (ΔEPD_NEG) reduce debt servicing, but the effect is weaker and only marginally significant. This suggests that while additional borrowing quickly raises servicing costs, debt reduction provides limited short-term relief. This result aligns with Omotosho and Doguwa (2020) but contrasts with Afonso and Alves (2015), who observed stronger fiscal adjustment effects in advanced economies.

Inflation changes (ΔINF) exert a positive and significant short-run effect on debt servicing, implying that rising prices quickly translate into higher servicing costs. This supports Fosu (2019), who argues that inflation undermines fiscal sustainability in Sub-Saharan Africa, but contradicts Reinhart and Rogoff (2010), who suggest that moderate inflation can sometimes reduce real debt burdens

Table 4.6: Short-Run NARDL Estimates

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ΔEPD_POS	0.148**	0.059	2.51	0.016
ΔEPD_NEG	-0.092*	0.055	-1.67	0.099
ΔINF	0.054**	0.026	2.08	0.042
ΔEXR	0.089***	0.028	3.19	0.002
ΔFD	0.061	0.051	1.20	0.235
ECT(-1)	-0.548***	0.109	-5.03	0.000

Source: *Researchers' computation (2026)*

(*, **, *** denote significance at 10%, 5%, and 1% respectively)

Exchange rate changes (ΔEXR) have a strong and highly significant short-run impact, confirming that naira depreciation sharply increases external debt servicing obligations, given Nigeria's high exposure to foreign-currency-denominated debt. This finding is consistent with Adewuyi and Babajide (2021) and reinforces Ezeabasili et al. (2011), who identified exchange rate instability as a key driver of Nigeria's debt challenges.

Fiscal deficit changes (ΔFD) are positive but statistically insignificant in the short run, indicating that fiscal imbalances do not immediately translate into higher debt servicing payments. This contrasts with Cochrane (2011) but aligns with Umar and Ismail (2020), who observed lagged effects of fiscal deficits on Nigeria's debt servicing.

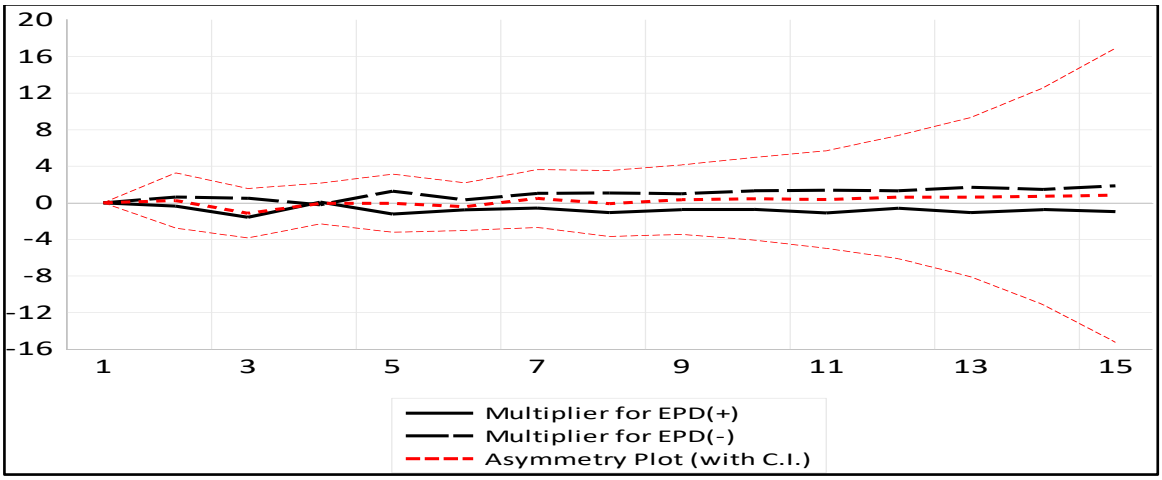
The error correction term (ECT) is negative and highly significant, confirming the existence of a stable long-run relationship. The coefficient (-0.548) implies that approximately 55 percent of short-run disequilibrium is corrected within one year, indicating a relatively rapid adjustment toward long-run equilibrium. This speed of adjustment is faster than the average reported by Pesaran et al. (2001), suggesting strong corrective dynamics in Nigeria's external debt servicing process.

4.7 Dynamic Multiplier Analysis

Figure 4.1 shows the cumulative dynamic multiplier effects of positive (EPD^{+}) and negative (EPD^{-}) shocks in external public debt on debt servicing (LDS), revealing clear asymmetry. Positive shocks lead to a persistent negative effect on LDS, while negative shocks produce a weaker, slightly positive effect. The widening gap between the two responses over time confirms dynamic asymmetry, indicating that increases in external public debt have stronger effects on debt servicing than decreases, which is given as:

$$m_{r,t}^{+}(h) = \sum_{s=0}^{h} \frac{\partial_{t+s}}{\partial x_{r,t}^{+}} \quad \text{.....} \quad (6)$$

$$m_{r,t}^{-}(h) = \sum_{s=0}^{h} \frac{\partial_{t+s}}{\partial x_{r,t}^{-}} \quad \text{.....} \quad (7)$$



4.8 Diagnostic Checking

To assess the suitability and reliability of the NARDL model, a series of diagnostic tests were performed. The results presented in Table 4.6 indicate that the model's residuals are homoscedastic and free from serial correlation, while the Ramsey RESET test confirms the absence of functional form misspecification.

Table 4.6 Diagnostic Tests

Diagnostics Check	F- STATISTIC	Prob.	Null Hypotheses
Breusch-Pagan-Godfrey Heteroskedasticity Test	0.419429	0.9453	No Heteroskedasticity
Breusch-Godfrey Serial Correlation LM Test	2.573905	0.1917	No Serial correlation
Ramsey RESET Test for equation misspecification		0.0109	No misspecification

Source: *Researchers' computation (2026)*

In addition, the CUSUM and CUSUM of squares tests, illustrated in Figures 4.2 and 4.3, demonstrate that the model is dynamically stable over the sample

period. This implies that both the short-run and long-run relationships among the variables remain consistent over time. Therefore, these findings confirm that the estimated model is statistically sound and reliable for inference

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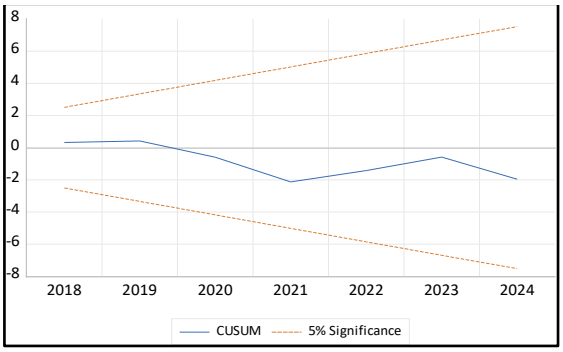


Figure 4.2: CUSUM Test for dynamic stability stability
Source: Researchers' computation (2026)

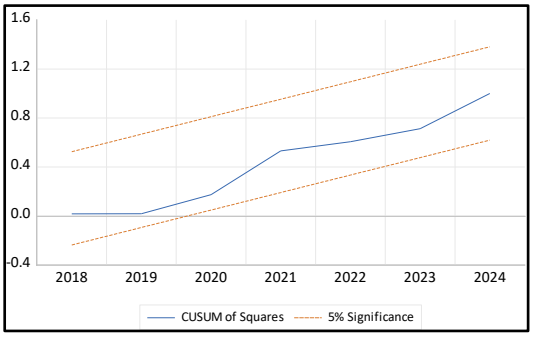


Figure 4.3: CUSUM of Square Test for dynamic

Source: Researchers' computation (2026)

5.0 Conclusion and Recommendations

This study examined the asymmetric effects of external public debt, inflation, exchange rate, fiscal deficit, and economic growth on Nigeria's debt servicing obligations using the Nonlinear Autoregressive Distributed Lag (NARDL) approach. The empirical findings reveal the presence of both short-run and long-run asymmetries, highlighting the complex and dynamic nature of debt servicing in Nigeria.

In the long run, increases in external public debt significantly intensify debt servicing obligations, indicating that Nigeria's growing reliance on foreign borrowing imposes substantial fiscal pressure over time. Inflation, rather than easing the real burden of debt, was found to exert destabilizing effects on debt servicing, suggesting that persistent inflationary pressures amplify servicing costs through higher interest rates and exchange rate pass-through. Similarly, exchange rate depreciation significantly worsens debt servicing obligations, confirming Nigeria's vulnerability to currency risk given the foreign-currency denomination of external debt. Fiscal deficits also exhibit a strong positive relationship with debt servicing, reflecting an unsustainable cycle of deficit financing and debt accumulation. In contrast, economic growth exerts a mitigating effect on debt servicing, implying that stronger growth improves fiscal capacity and revenue generation, thereby easing repayment pressures.

In the short run, exchange rate movements and fiscal deficits exert immediate and significant effects on debt servicing, underscoring the sensitivity of Nigeria's debt obligations to macroeconomic shocks and fiscal imbalances. While inflation and external debt shocks also influence debt servicing in the short run, their effects are comparatively less pronounced, suggesting that their full impact materializes over time. On the whole, the findings underscore the importance of macroeconomic stability and prudent debt management in safeguarding Nigeria's fiscal sustainability.

Policy Recommendations

Based on the empirical findings, the study makes the following policy recommendations:

1. Enhance domestic revenue generation: Implement tax reforms, widen the tax base, and reduce leakages to lower reliance on external borrowing and ease debt servicing pressure.
2. Strengthen external debt management: Adopt a transparent and sustainable borrowing framework, ensuring external loans are used for productive, foreign exchange–generating projects.
3. Promote exchange rate stability: Diversify exports beyond oil, build foreign reserves, and support non-oil sectors to reduce exchange rate volatility and its impact on debt servicing.
4. Reduce fiscal deficits: Improve expenditure efficiency, cut wasteful spending, and prioritize productive investments to limit debt accumulation.
5. Control inflation: Coordinate monetary and fiscal policies to maintain price stability and prevent increases in debt servicing costs.

By implementing these measures, Nigeria can reduce its vulnerability to external debt servicing pressures, enhance macroeconomic stability, and ensure that public debt supports sustainable economic growth rather than precipitating fiscal distress.

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RETHINKING JOB PERMANENCE: A SHIFT FROM FIXED EMPLOYMENT TO TASK-ORIENTED CONTRACTING IN THE WORKPLACE

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Abstract

The human resource (HR) function in management is primarily responsible for the recruitment and selection of staff within an organization. However, recent concerns have emerged regarding the productivity of employees on permanent contracts, as many tend to become less effective after a short period on the job. This paper aims to explore the factors contributing to the decline of fixed jobs in contemporary labor markets, challenges employers face when adopting non-fixed job structures and how fixed jobs impact job security, career progression, and work-life balance. The study employed a mixed-methods research design to investigate HR-related issues affecting productivity. For the qualitative aspect, 30 participants were selected 15 employees and 15 employers or HR managers from various sectors. The quantitative survey targeted 500 employees and 100 employers across different industries. Findings indicate that organizations embracing modern, innovative approaches are more focused on maximizing employee performance. Task-oriented roles with clearly defined job descriptions were found to be more effective and result-driven compared to fixed or permanent positions, where employees tend to lose focus over time. The study also reveals that permanent staff often become complacent and less inclined to pursue self-improvement, unlike contract workers. A hybrid model which includes a mix of full-time employees, part-time workers, freelancers, and contractors, all collaborating in a more fluid and dynamic workforce is therefore recommended.

Keywords: Flexibility, Fixed employment, Job Permanence, Task Oriented Contacting, Workplace

Introduction:

In recent years, the employment landscape has experienced a significant transformation driven by technological innovation, shifting economic models, and changing societal values. The traditional concept of a fixed job is rapidly fading. In its place, more flexible and dynamic work structures which include freelance roles, remote work, gig economy opportunities, and portfolio careers are taking root. This shift marks the clear decline of fixed job models and highlights a growing preference for adaptable employment arrangements.

This evolution carries major implications for workers, employers, and society as a whole. Workers now adapt to a labor market that prioritizes flexibility, autonomy, and entrepreneurial skills over long-term security. At the same time, employers are

rethinking their workforce strategies, embracing flexible hiring models to tap into a wider, more diverse talent pool and remain competitive in a fast-changing world. Meanwhile, governments and policymakers are faced with the challenge of addressing the economic and social implications of this shift.

The transition away from fixed jobs is being driven by a variety of factors like digital technologies, the gig economy, and changing workforce demographics. These drivers are reshaping the way work is conceptualized, structured, and delivered. In view of the above, the following research questions were considered;

1. What are the factors contributing to the decline of fixed jobs in contemporary labor markets?
2. What challenges do employers face when adopting non-fixed job structures?
3. What are the policy implications of the growing trend toward gig work and non-fixed employment models?

Literature Review

Conceptual Review

Gig Work – Gig work is a short term, flexible, project-based, or on-demand jobs where individuals act as independent contractors without being classified as traditional employees (Canpolat, 2025). A gig economy is a free market system in which temporary positions are common and organizations hire independent workers for short term commitments, it undermines the traditional economy of full-time workers who rarely change positions and instead focuses on a lifetime career. A gig worker is an independent contractor, online platform worker, or contract firm worker, and may also be known as a freelancer.

Task-Oriented contracting – This is a work arrangement where an employee is hired and paid to complete specific tasks rather than being employed permanently for a fixed long-term position (Tabernero, 2009). It focuses on defining specific, measurable tasks and outcomes to improve project performance, rather than just monitoring processes.

Technological Advancements and Automation - The accelerating advancement of technology, particularly in automation and digital platforms, has significantly disrupted traditional employment structures. Automation has replaced many routine tasks once handled by humans, especially in manufacturing and administrative roles (Brynjolfsson & McAfee, 2014). Meanwhile, AI and machine learning are increasingly capable of handling complex tasks, enabling organizations to streamline operations and reduce reliance on permanent staff (Frey & Osborne, 2017).

Digital platforms have further fueled this shift. Online job marketplaces like Upwork, Fiverr, and TaskRabbit have simplified access to freelance and gig-based opportunities, reducing dependence on traditional full-time roles. These platforms empower individuals to take on project-based or short-term work for multiple clients, offering greater autonomy and flexibility in how and when they work (Zhao & Yang, 2020).

Changing Workforce Demographics - Another key driver of the end of fixed jobs is the changing demographics of the workforce. The millennial and Gen Z generations, who are now the largest segments of the global workforce, tend to prioritize flexibility, work-life balance, and opportunities for personal growth over traditional job security (Hurst & Lavoie, 2019). These younger workers are less inclined to remain in a single, long-term job, and they are more likely to pursue multiple career paths simultaneously, including freelancing, consulting, and side hustles.

Globalization and Outsourcing - Globalization has been a major driver in the decline of fixed employment. As businesses expand internationally, many seek to cut costs by outsourcing or offshoring jobs to countries with lower labor expenses. Autor, Dorn, and Hanson (2013) note that globalization has significantly contributed to the reduction of manufacturing jobs in developed nations, where workers traditionally depended on stable, full-time roles.

Increasingly, companies rely on short-term hires and contingent labor to adapt to fluctuating demand, offering minimal job security and long-term prospects.

Globalization has also contributed to the end of fixed jobs by increasing competition and encouraging companies to outsource labor to cheaper markets. Outsourcing and offshoring have become common practices in industries such as manufacturing, customer service, and information technology (IT), further diminishing the need for fixed, long-term employment contracts (Sachs, 2015).

COVID-19 Pandemic and Remote Work The COVID-19 epidemic hastened the transition away from permanent jobs, forcing millions into remote work arrangements. Industries such as technology, banking, and education swiftly adopted remote work, making it the norm during the crisis. This shift has prompted a widespread rethinking of the traditional 9-to-5 office model, with both employees and employers increasingly recognizing the benefits of flexible working arrangements.

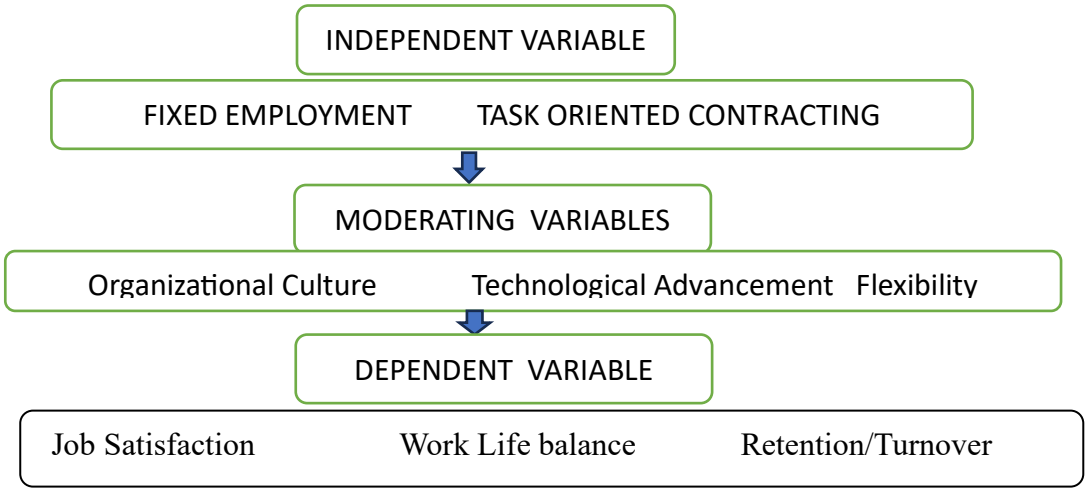
While the reduction of established occupations provides increased autonomy and flexibility, particularly through freelancing and gig options, it also poses considerable obstacles. Workers suffer increased job insecurity, fluctuating earnings, and limited access to standard employment benefits.

Theoretical Review

The theory that underpins this study is Gig Economy Theory. This theory explains how digital platforms and technology have encouraged flexible work arrangements where individual complete tasks or projects instead of holding permanent positions, (Sundararajan, 2016). The idea is that modern work is increasingly organized around temporary jobs and task-based contracts rather than permanent employment.

Adepoju and Olatunji (2021) investigated the impact of remote work on employee performance within selected commercial banks during the COVID-19 lockdown. Using a survey-based cross-sectional design, the researchers collected data from 150 employees across Lagos-based bank branches. The study found that although most employees initially faced technical challenges due to poor internet and inconsistent power supply, over time they adapted to the new work model. The results suggested that flexibility in scheduling and the elimination of commuting contributed positively to perceived productivity. However, the study also found that low digital literacy among some staff and lack of technical support hindered full optimization of remote work benefits.

Conceptual Framework



Source: Researcher's Conceptualization, 2026

This framework suggests that the transition from traditional permanent employment to task=oriented contracting influences workplace outcomes of Job satisfaction and retention or turnover through moderating variables like technology, organizational culture as well as flexibility of work structure.

3.0 Methodology

This study uses a mixed-methods research methodology of qualitative and quantitative approaches. The qualitative element seeks to understand people's specific experiences, opinions, and perspectives on the fall in fixed employment, focus groups (FGDs) and semi-structured interviews was used to achieve this. The qualitative aspect clarifies the human aspects of the problem, such as how employers and employees view job security/insecurity, and how it affects work-life balance. This was done by collecting and evaluating numerical data in order to find patterns, correlations, and trends related to the declining number of fixed positions. Measurement of the extent to which gig labor, short-term contracts, or remote work arrangements are replacing traditional permanent positions is the goal of the poll. The research employed purposive and stratified random sampling methods for selecting respondents. A total of 30 respondents comprising 15 employees (from various sectors, technology, manufacturing, and service industries) and 15 employers (or HR managers) were selected for the qualitative survey. This was based on their involvement with flexible or non-permanent work structures, recruited through professional networks, organizational contacts, and job portals offering gig or contract-based work. For quantitative survey, structured questionnaire was developed and distributed to 500 employees and 100 employers stratified by industry, job type, and job tenure to ensure diverse representation. The questionnaire includes both closed-ended and Likert-scale questions, designed to capture data on respondents' demographics, perceptions of job security, benefits, work arrangements, and attitudes toward gig work.

Thematic Analysis and Statistical Package for the Social Sciences (SPSS) software was used for the analysis. NVivo software was employed for coding and organizing data. Common themes such as job insecurity, work-life balance, and perceptions of gig work were identified and analyzed in depth. Descriptive statistics was used to summarize the data collected through the survey while

inferential statistics, including chi-square tests and correlation analysis, was applied to examine relationships between variables

Econometric Model

To empirically examine the relationship between flexible work arrangements, job insecurity, work-life balance, career progression, and employee productivity, the study specifies the following regression model:

$$EP = \beta_0 + \beta_1 FWA + \beta_2 JIS + \beta_3 WLB + \beta_4 CPC + \beta_5 TA + \mu$$

Where:
EP= Employee Productivity
FWA= Flexible Work Arrangement
JIS= Job Insecurity
WLB= Work-Life Balance
CPC= Career Progression Concern
TA= Technology Adoption
β_0= Constant term
$\beta_1 - \beta_5$= Parameters to be estimated
μ= Error term

The a priori expectation of the model is expressed as

:

$$\beta_1 > 0, \beta_2 < 0, \beta_3 > 0, \beta_4 < 0, \beta_5 > 0$$

This implies that flexible work arrangements, work-life balance, and technology adoption are expected to positively influence employee productivity, while job insecurity and career progression concerns are expected to negatively affect productivity.

4.0 Analysis of the result

4.1 Descriptive Statistics Results

The descriptive statistics show that technology adoption recorded the highest mean value (Mean = 4.12), indicating that respondents strongly perceive technological advancement as a major driver of the shift from fixed employment to task-oriented contracting. Career progression concern also recorded a high mean score (Mean = 4.01), suggesting that many employees are worried about limited long-term advancement opportunities under non-fixed employment structures.

Table 3.1: Descriptive Statistics of Variables

Variables	Mean	Std. Dev.	Minimum	Maximum
Employee Productivity (EP)	3.84	0.79	1.00	5.00
Flexible Work Arrangement (FWA)	3.67	0.88	1.00	5.00
Job Insecurity (JIS)	3.92	0.95	1.00	5.00
Work-Life Balance (WLB)	3.58	0.83	1.00	5.00
Career Progression Concern (CPC)	4.01	0.91	1.00	5.00
Technology Adoption (TA)	4.12	0.76	1.00	5.00

Source: Researchers' Computation (2026)

Job insecurity recorded a relatively high mean value (Mean = 3.92), reflecting widespread concerns among employees regarding uncertainty associated with contract and gig work arrangements. Employee productivity recorded a mean value of 3.84, indicating that respondents

generally perceive task-oriented and flexible work arrangements as moderately effective in enhancing productivity. The standard deviation values across the variables are relatively low, ranging from 0.76 to 0.95, implying moderate consistency in respondents' opinions and suggesting that the survey responses are fairly concentrated around the mean values.

4.2 Correlation Analysis

The correlation analysis reveals that job insecurity has a strong positive relationship with career progression concerns ($r = 0.563$, $p < 0.01$) and support for stronger gig worker regulation ($r = 0.611$, $p < 0.01$). This suggests that employees who perceive non-fixed work arrangements as insecure are more likely to demand regulatory protection and express concerns about long-term career growth.

Table 4.2: Correlation Matrix of Major Variables

Variables	JIS	FWA	WLB	EP	CPC	SGR
JIS	1.000	0.214**	-0.318**	-0.427**	0.563**	0.611**
FWA	0.214**	1.000	0.472**	0.356**	-0.188*	0.127
WLB	-0.318**	0.472**	1.000	0.401**	-0.276**	-0.092
EP	-0.427**	0.356**	0.401**	1.000	-0.351**	-0.201*
CPC	0.563**	-0.188*	-0.276**	-0.351**	1.000	0.484**
SGR	0.611**	0.127	-0.092	-0.201*	0.484**	1.000

Source: Researchers' Computation (2026)

Note: **Correlation is significant at 0.05 level,* **Correlation is significant at 0.01 level

Furthermore, employee productivity shows a negative relationship with job insecurity ($r = -0.427$, $p < 0.01$), indicating that increased insecurity tends to reduce workers' efficiency and commitment. Flexible work preference is positively associated with work-life balance ($r = 0.472$, $p < 0.01$), suggesting that employees value flexibility because it enhances personal and professional balance.

4.3 Regression Results

The regression results indicate that flexible work arrangements significantly improve employee productivity ($\beta = 0.384$, $p < 0.01$), suggesting that employees in task-oriented and non-fixed roles tend to perform better when provided with flexibility. Technology adoption also exerts a positive and significant effect on productivity ($\beta = 0.318$, $p < 0.01$), confirming that modern workplace systems enhance efficiency and output.

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Table 4.3: Multiple Regression Result on Determinants of Employee Productivity

Dependent Variable: Employee Productivity				
Variables	Coefficient (β)	Std. Error	t-Statistic	Probability
Constant	2.114	0.421	5.021	0.000
FWA	0.384	0.072	5.333	0.000
JIS	-0.291	0.068	-4.279	0.000
WLB	0.267	0.081	3.296	0.001
CPC	-0.173	0.059	-2.932	0.004
TAdoption	0.318	0.074	4.297	0.000
Model Summary	R^2	0.641	F-Statistic	45.218
	Adjusted R^2	0.627	Prob(F-statistic)	0.000

Source: Researchers' Computation (2026)

Conversely, job insecurity negatively affects productivity ($\beta = -0.291$, $p < 0.01$), implying that employees experiencing uncertainty about job continuity may become less motivated and less committed to organizational goals. Similarly, career progression concerns negatively influence productivity ($\beta = -0.173$, $p < 0.05$), indicating that workers who perceive limited opportunities for advancement are likely to exhibit reduced performance levels.

The model explains approximately 64.1% of the variation in employee productivity ($R^2 = 0.641$), while the F-statistic confirms that the model is statistically significant overall

.**Table 4.4: Overview of Key Findings from Qualitative and Quantitative Data**

Finding	**Qualitative Insights (Interviews/FGDs)**	**Quantitative Insights (Survey Data)**
Factors driving the decline of fixed jobs	1. Technology advancement, automation, and globalization are major contributors. 2. Cost-saving measures and flexibility in hiring. 3. Shift in organizational priorities towards agility.	58% of employers report cost-saving as a key factor for adopting non-fixed job structures while 72% of employees identify technology as the primary driver of job structure changes.
Employee perceptions of job insecurity	1. Increased job insecurity due to the lack of long-term contracts. 2. Desire for flexibility often outweighs security concerns.	67% of employees express concern about job insecurity. 52% of employees indicate a preference for flexible roles despite security concerns.
Impact on work-life balance	1. Greater work-life balance due to flexible work schedules. 2. Some participants report blurred boundaries between work and personal life.	61% of employees report improved work-life balance while 38% report challenges in separating personal and professional time.
Employer challenges in adapting to non-fixed work	1. Managing talent acquisition and retention in a non-fixed framework.	64% of employers face difficulties in talent retention. 56% report challenges in maintaining

	2. Ensuring productivity and employee engagement.	employee productivity with non-fixed roles.
Career progression concerns	1. Limited career advancement opportunities for gig workers. 2. Fear of stagnation in skill development due to short-term roles.	74% of employees feel that gig work limits career progression while 59% of employees state that fixed employment would offer better career growth.
Policy implications and future of work	1. Need for updated labor laws to protect gig workers. 2. Support for policies ensuring fair pay and benefits for non-fixed workers.	77% of employees call for greater protection of gig workers through regulation. 65% of employers advocate for flexible labor laws that support non-fixed roles.

Source: Researchers' computation (2026)

4.4 Discussion of Findings

Factors Contributing to the Decline of Fixed Jobs: The qualitative data suggests that technology and automation are central to the decline of fixed, permanent jobs. Employers increasingly turn to non-fixed job arrangements (such as gig work or temporary contracts) to reduce costs, enhance workforce flexibility, and cope with changing market dynamics. As stated by many interviewees, the rise of automation in manufacturing and service sectors, along with the global shift towards a digital economy, has significantly impacted job security and permanence.

The quantitative survey supports these findings, with 58% of employers noting that cost-saving initiatives were the primary motivation behind the adoption of flexible job structures. Furthermore, a large proportion of employees (72%) link the decline of permanent roles to technological advancements, highlighting the need for adaptive strategies in workforce management.

Job insecurity is one of the most significant themes emerging from the qualitative interviews. Many employees expressed a fear of not having long-term job security in non-fixed roles. However, some also recognized the trade-off between flexibility and security.

The survey data reveals that while 67% of employees are concerned about job insecurity, 52% still prefer the flexibility offered by non-fixed roles. This indicates a complex relationship between security and flexibility, where employees are increasingly willing to compromise on job stability for greater personal freedom and work-life balance.

Impact on Work-Life Balance: One of the main conclusions drawn from the qualitative phase was how flexible work schedules affected work-life balance. Many participants value the freedom to set their own hours and reported that flexible schedules improved their capacity to balance work and family obligations. However, many also expressed concerns about the fuzziness of work-life boundaries, especially among freelancers and remote workers themselves. This is consistent with other studies that showed that although flexibility has its benefits, it also makes it more difficult to maintain efficient time management.

The quantitative results support these insights: 61% of employees reported an improvement in work-life balance, yet 38% indicated difficulty in clearly separating work from personal time. These findings underscore the need for targeted strategies to help individuals navigate and optimize flexible work schedules.

Challenges of Job Insecurity and Income Instability

While freelancing offers notable advantages, it also comes with significant challenges—most notably, the lack of job security and income stability. Freelancers and gig workers often experience gaps in employment or inconsistent workloads, making it difficult to maintain steady earnings (Horton, 2019). This financial unpredictability can be especially stressful for those who depend entirely on gig work. Moreover, freelancers are typically responsible for handling their own taxes, health insurance, and retirement planning, adding layers of complexity to their financial management. Without traditional employment benefits like paid sick leave or employer-sponsored health coverage, independent workers must take initiative to secure their own welfare and plan for long-term stability (Prassl, 2018).

Opportunities for Flexibility and Autonomy

Flexibility and autonomy that come with leaving established work is one of the main advantages of remote jobs. Gig and freelance workers can adjust their schedules to suit their own requirements and preferences because they are free to choose how, when, and where they work. Higher job satisfaction and a better work-life balance are frequently the results of this flexibility (Kuhn & Maleki, 2017).

The chance to expand their skill sets and seek numerous revenue streams also appeals to a lot of people. A freelancer might, for example, teach online classes in the evening, work on a personal project on the weekends, and design graphics during the day. People who appreciate diversity, autonomy, and ongoing professional development will find this portfolio-style career appealing (De Stefano, 2016).

Cost Savings and Access to Specialized Skills

The possibility for large cost savings is one of the main advantages of implementing flexible work arrangements for organizations. Businesses can cut costs associated with full-time employment, such as office infrastructure, benefits, and pay, by hiring independent contractors and freelancers. Employers can also access a worldwide talent pool with this strategy, enabling them to bring in specialized expertise for particular projects without having to commit to long-term hires (Dube, 2020). Additionally, the gig economy provides scalability, allowing companies to swiftly modify their workforce in response to changing demands. This flexibility is particularly useful in sectors where consumer demands are constantly changing, such as technology, retail, and hospitality.

Challenges of Managing a Remote, Non-Permanent Workforce

The shift to flexible work arrangements also introduces significant challenges for employers, particularly in terms of managing remote and non-permanent workers. Ensuring effective communication, collaboration, and performance management becomes more difficult when workers are spread across different locations and time zones. Moreover, the lack of a permanent workforce can create challenges in building a cohesive company culture and fostering long-term employee engagement (Choudhury et al., 2020). Employers must also address issues related to worker classification and legal compliance. As more workers engage in freelance and gig work, companies must navigate the legal complexities surrounding worker classification, benefits, and labor laws. In some cases, companies may face pressure to provide workers with benefits traditionally reserved for full-time employees, such as health insurance and retirement contributions.

A New Era of Work

The end of fixed jobs marks the beginning of a new era in the world of work. While this shift presents significant opportunities for workers and employers alike, it also comes with its own set of challenges. Workers must navigate the uncertainties of income instability and job insecurity, while employers must adapt to a more dynamic and decentralized workforce. As the future of work continues to evolve, it is clear that the traditional model of fixed jobs is becoming increasingly outdated. In its place, a more flexible, diverse, and fluid approach to work is emerging, one that prioritizes autonomy, specialization, and adaptability. Whether this shift is ultimately beneficial for workers and employers will depend on how these challenges are addressed, but one thing is certain: the end of fixed jobs is now.

The Changing Nature of Work

Historically, jobs were seen as stable, long-term positions where workers committed to a single employer for an extended period. These jobs were characterized by predictable hours, steady income, and a defined career progression. However, numerous factors have led to the erosion of this model, particularly with the advent of globalization, technological innovation, and shifts in organizational structures.

Implications for Workers

The decline of fixed jobs brings with it a mix of opportunities and challenges for today's workforce. On the positive side, the rise of gig and freelance work offers individuals increased flexibility, autonomy, and the ability to explore multiple career paths or side ventures. According to the OECD (2021), workers in non-traditional roles often report higher levels of job satisfaction and improved work-life balance.

However, this shift also introduces serious concerns around job security, income stability, and access to social protections. Gig workers are frequently excluded from traditional labor regulations and may lack essential benefits such as healthcare, retirement plans, or paid leave (Rosenblat, 2018). This lack of support exposes many to financial risk and deepens socioeconomic inequalities.

As work becomes more fragmented and dynamic, workers must continuously adapt to remain competitive. The demand for upskilling and reskilling has never been more urgent. Developing competencies in areas like digital literacy, project management, and entrepreneurship is increasingly essential for navigating a labor market that is shifting away from fixed employment toward more flexible and diverse work arrangements.

While this shift offers notable advantages, such as increased autonomy, flexibility, and access to diverse income opportunities, it also introduces serious challenges, including job insecurity, income instability, and limited access to social protections. As both workers and organizations adapt to these changes, it is essential to develop supportive policies that address the unique needs of those in non-traditional roles. Ensuring access to benefits, fair labor standards, and opportunities for continuous learning will be key to creating a more equitable and sustainable workforce.

Employer Challenges in Adapting to Non-Fixed Work Structures: For employers, the end of fixed jobs presents both opportunities and challenges. On one hand, the rise of freelancing and gig work enables organizations to access a broader and more flexible talent pool, allowing them to tap into specialized skills on an as-needed basis. On the other hand, it introduces new complexities in managing a distributed, non-permanent workforce. From the employer's perspective, the transition from fixed jobs to

non-fixed structures has presented several challenges. Employers expressed concerns about maintaining employee engagement and productivity without the traditional structures of permanent contracts. They also cited difficulties in managing talent acquisition and retention, particularly when it comes to gig workers, who may not feel as committed to the company as permanent employees. These challenges highlight the importance of adapting HR strategies to ensure that non-fixed workers remain motivated and productive while feeling valued within the organization.

Policy Implications

The need for new policies to address the evolving nature of work underscores the importance of forward-thinking legislation that can safeguard workers while supporting the flexibility that employers seek. This study highlights significant shifts in the labor market, driven by technological advancements, economic factors, and changing organizational priorities. Both employees and employers face a complex array of challenges and opportunities as fixed jobs continue to decline and non-fixed employment structures rise. While employees value the flexibility offered by gig work, concerns about job security, career progression, and work-life balance persist. Employers, on the other hand, struggle with managing productivity, retention, and engagement in non-fixed job frameworks. The study suggests that there is a clear need for updated policies to protect non-fixed workers while fostering the flexibility that modern economies demand.

5.0 Conclusion and Recommendations

It is crucial to note that the end of fixed jobs does not imply the complete disappearance of permanent roles. Instead, it marks a shift toward hybrid models of work that blend traditional employment structures with more flexible, non-permanent arrangements. This hybrid model may include a mix of full-time employees, part-time workers, freelancers, and contractors, all collaborating in a more fluid and dynamic workforce.

It is recommended that societal attitudes toward employment must evolve to match the shifting landscape. The traditional notion of job stability may need to be reimagined around themes of adaptability, lifelong learning, and the pursuit of diverse, fulfilling career paths. Building a labor market that reflects these values will require collaboration between policymakers, employers, and workers to create a more flexible, equitable, and future-ready economy.

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INFORMATION ASYMMETRY: A CONCEPTUAL REVIEW OF MEASUREMENT MODELS

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ABSTRACT

Measuring information asymmetry involves determining the knowledge imbalance between parties to a transaction and is an activity that is carried out basically by economists, financial analysts and researchers using various models and proxies that have to do with stock price, corporate disclosures and market behavior. This paper adopted conceptual review approach and reviewed measurement models of information asymmetry that have been employed in previous relevant empirical research works. The main source of data for the paper was relevant empirical research articles published in various Accounting and Finance journals from 2010 to 2025. And based on the conceptual review conducted, the paper concluded that majority of the measurement models of information asymmetry that have been used in previous relevant studies are suitable for developed and emerging markets and so, there can be some limitations while applying them in underdeveloped/frontier markets. Also, the models offer several specific benefits and none of them are without any limitation. Therefore, the paper suggested that investors, corporate firms, financial analysts, economists and future researchers should always take into account the type, nature and peculiarity of their markets, the benefits and limitations of each model before deciding on which to use while measuring the value of information asymmetry. The paper made conceptual and theoretical contribution to the literature on information asymmetry. Also, it made practical contribution by influencing the choice and application of measurement models by economists, investors, financial analysts and researchers.

Keywords: Information Asymmetry, Adverse Selection, Moral Hazard, Measurement Models, Perfect Market, Imperfect Market

1.0 Introduction

One of the key theoretical characteristics of a perfect market or perfect competition is the existence of perfect information, that is, a situation in which the numerous buyer and sellers in the market have equal access to and possession of relevant information about the identical or homogeneous products in the market. This saves the market from all form of imperfections and inefficiencies especially information asymmetry (Quy-Toan Do, 2003; Hayes, 2019).

Information asymmetry occurs when market is imperfect, and it denotes a circumstance in which the sellers know more (than the buyers) about the products been traded (Eid, 2015). In other words, information asymmetry means a situation

in which there is imbalance of knowledge between two parties, like buyer and a seller, employer and employee, regulator and operator, borrower and lender etc. (Salhi, 2020). And thus, in such situation, one of the individuals to the transaction is more informed than the other (Zhang, 2024).

Existence of information asymmetry in markets (for instance, Stock Markets) creates not only adverse selection and moral hazards, but also imbalance of power in transactions, capital misallocation, reduced overall trust, increased risk and financing cost (Kazemi & Rahmani, 2013; Levi & Zhang, 2014; Asadbakhti & Malgharni, 2016; Zhang, 2024). These and other problems created by information asymmetry necessitate the need to measure the level of information asymmetry in the markets.

Measuring level of information asymmetry offers a number of benefits to buyers, sellers and other market participants (Bhargava & Chen, 2012; Shamsoddini et al. 2016, Decourt et al.2024). For instance, by measuring and knowing their level of information asymmetry, corporate firms can improve on their level of information disclosure thereby enjoying reduction in financing costs and improved performance (Bhargava & Chen, 2012; Kazemi & Rahmani, 2013; Asadbakhti & Malgharni ,2016; Khatali, 2020).

Moreover, investors benefits from measuring and knowing the level of information asymmetry as it enables them to make better investment decisions (Istrate, 2018; Aidoo, 2023; Ahmad, Hunjra & Taskin, 2023). Other benefits to be gained from measuring asymmetric information include mitigation of adverse selection, optimization of sales strategy and improved market liquidity. Thus, parties interested in the level of information asymmetry include a wide range of professionals, researchers, and market participants who are concerned with market efficiency, fairness, and risk management.

Measuring information asymmetry involves quantifying the knowledge imbalance between parties to a transaction and is an activity that is carried out basically by economists, financial analysts, investors and researchers using various models and proxies that have to do with stock price, corporate disclosures and market behavior. For instance, Financial Analyst employ analyst coverage and forecast dispersion to measure the extent to which information is unevenly distributed among different market participants (Decourt et al.2024).

Economists and Researchers use trading volume, bid-ask spreads and stock price movements to determine the existence of informed versus uninformed traders (Ferriani, 2010; Acheson, Coyle & Turner,2018). Moreover, Researchers look at corporate disclosures to measure how much more one party knows than the other. Also, investors primarily measure information asymmetry via analyst forecasts, market microstructure data and company financial disclosures (He et al. 2013). Hence, as Clarke and Shastri (2000) pointed out, models for measuring information asymmetry were many and could be grouped into analysts forecast measures, investment opportunity measures and microstructures measures.

Previous research works on information asymmetry have focused mostly on assessing its impact on items like cost of capital, performance, value and capital structure (Petacchi, 2015; Asadbakhti & Malgharni, 2016; Fosu et al., 2016, Khatali, 2020; Li & Yang, 2023; Gao et al., 2026, Ayagi, 2026). And to the best of our knowledge, there has been scarcity of research works that specifically reviewed the measurement models of information asymmetry. This paper is an attempt to bridge this gap and thus, aimed at reviewing the measurement models as employed in published empirical studies on information asymmetry over fifteen year period (2010-2025).

The paper contributes to the conceptual and theoretical literature on information asymmetry, as it identified and reviewed various asymmetric information measurement models, their benefits, limitations and suitability for developed, emerging and frontier markets. Also, the paper made theoretical contribution by underpinning its arguments with asymmetric information theory which explains the information asymmetry in capital markets, its likely risks and thus, the need for its measurement. Moreover, the practical contribution of the paper comes from the way in which it will influence the choice and application of measurement models by economists, investors, financial analysts and researchers, as it clearly revealed the suitability of each model to various types of markets. Other sections of the paper cover literature review, methodology, conclusion and recommendation.

2.0 Literature Review

2.1 Conceptual Review

Information Asymmetry

IA is defined by Pettinger (2017) as a situation where there is imperfect knowledge between buyers and sellers in the market. It is a circumstance in which one party in a transaction has more or superior information compared to another (Bloomenthal, 2019). It is also defined as a situation where by one party to a transaction is better informed than the other (Gołembska, 2021; Bergh et al., 2019). Model of IA presupposes that at least one party to a transaction possesses some relevant information that the other party does not have. Aside from posing imbalance of power in a transaction, IA creates two types of risks or problems known as adverse selection and moral hazard.

Adverse selection as defined by Hayes (2019) refers to a situation where sellers are in possession of some relevant information about some aspects of product quality that buyers do not have. It is a situation where by two (or more) persons are about to agree on a trade, and one of them appears to possess some information that the other(s) do not have (Quy-Toan Do, 2003)**.** Mankiw (2011) defined adverse selection as the tendency for the mix of unobserved attributes to become undesirable from the standpoint of an uninformed party. Adverse selection poses risk in form of immoral behavior which takes advantage of asymmetric information before a transaction takes place.

A good example of adverse selection is a risk exposure that exists before money is lent or invested. Because, a company's managers sourcing funds in order to

finance capital investment may capitalize on the asymmetric information and issue shares that are overpriced or overvalued at a given time. In this case, the less informed buyer who lacks some relevant information about the real value of the company may end up purchasing the overpriced shares and hence risking or losing his investment. Thus, adverse selection can be said to create a risk, likelihood or tendency that the seller may take advantage of IA and hide some relevant information about true quality or value of a given product.

Moral hazard on the other hand is regarded by Quy-Toan Do (2003) as a circumstance in which IA arises after an agreement is reached between parties to a given transaction. It is the tendency of a person who is imperfectly monitored to engage in dishonest or otherwise undesirable behavior (Mankiw, 2011 in Rymar, 2016). Moral hazard is normally analyzed in the framework or context of principal-agent problem whereby after signing the contract, the agent is likely to either take an action (hidden action) that is not observable by the principal or gather some relevant information about the environment that the principal cannot obtain. Thus, moral hazard as explained in Wikipedia (2017) instigates immoral behavior or risk that the agent may take advantage of the asymmetric information after the agreement and undertake an action that is not detectible and which may not be in the best interest of the principal.

Both adverse selection and moral hazard as components of IA were identified by Pettinger (2017) to be the source of problems or imperfections while borrowing or lending in the financial market as the borrower is better informed about his real financial state than the financier. The financier will have some challenges in appreciating the credit worthiness or the real financial status of the borrower. As a result, he will recompense himself for the adverse selection and moral hazard risks by charging higher rate. Pettinger (2017) therefore concluded that banking institutions for instance would not have to charge the risk premium, if the information was not asymmetric.

Measurement of Information Asymmetry

The following are some of the measurement models that this paper found to have been developed and used in previous empirical studies.

i. Probability of Private Informed Trades (PIN Variable)

This model was originally developed by Easley et al. (2002). PIN variable as defined by Ajward and Takehara (2010) is an unconditional probability of a randomly selected trades which originate from an informed traders. Thus, as used in the work, PIN variable is the ratio of expected informed order flow to the expected total order flow. It is computed as follows:

$$PIN = \frac{A\mu}{\alpha\mu + \varepsilon_{b+} \varepsilon_s}$$

Where:

α= probability that a private information event will occur in a given day

μ= order arrival rate based on private information

ε_b = arrival rate of uninformed buy orders

$\varepsilon_{s=}$ arrival rate of uninformed sell orders

Yan and Zhang(2012) Zagaglia (2013), Farhad et al. (2020), Cepoi et al. (2023) are among the studies that employed PIN variable. Identification of adverse selection risk and applicability to various market conditions are some of the advantages of PIN variable over other measures of information asymmetry (Zagaglia, 2013; Farhad et al., 2020). However, the criticisms that the model suffered include Computational intensity and dependence on trade signing (Duarte & Young 2009; Yan & Zhang,2012; Farhad et al., 2020; Cepoi et al., 2023).

ii. Adjusted PIN

PIN variable was criticized by Duarte and Young (2009) as cited in Ajward and Takehara (2010) for being developed mainly on unusual trading which is based on private information. They further argued that the model is composed of two elements, i.e. The degree of asymmetric information and illiquidity, which has no correlation with the degree of information asymmetry of a given enterprise. Hence, they came up with adjusted PIN variable which according to them is more purified and could exactly measure the IA.

The model is as follows:

$$\text{Adjusted PIN} = \frac{\alpha[(1-\delta)\,.\,\mu_b+\delta.\mu_s]}{\alpha[(1-\delta)\,.\,\mu_b+\delta.\mu_s]+(\Delta_b+\Delta_s)\theta+\varepsilon_{b+}\,\varepsilon_s}$$

Where:

α= probability that a private information event will occur in a given day

μ= order arrival rate based on private information

ε_b = arrival rate of uninformed buy orders

$\varepsilon_{s=}$ arrival rate of uninformed sell orders

δ = fraction of bad news in private information

Δ_b = uninformed investors' additional buy order arrival rates when symmetric order flow

shock event occurs

Δ_s = uninformed investors' additional sell order arrival rates when symmetric order flow

shock event occurs

θ = probability of symmetric order flow shocks

Ajward and Takehara (2010) revealed that an increase in the Adjusted PIN variable signifies an increase in the degree of information asymmetry. The model offers other benefits like refining how information asymmetry is measured, higher accuracy in measuring adverse selection and separation of information from liquidity shocks (Duarte & Young 2009). It is also suitable for both developed markets and emerging markets (Agudelo et al.,2015; Kuzmin & Boulatov, 2024). However, despite being a modification to PIN variable, the model was criticized for significant computational challenges, failure to distinguish information types, model structural limitations and inability to fully capture modern information flow (Brennan et al., 2016; Ersan& Ghachem, 2025).

iii. Bid-Ask Spread

This is in other words called bid–offer spread. It is the difference between the ask price and bid price for a given share, or the amount by which the ask price exceeds the bid price of a share in the capital market. The ask price is the lowest price that a seller is willing to accept, while the bid price is the highest price that a buyer is willing to pay for a given share (Ganti, 2019). Bid-Ask Spread model was developed by Chiang and Vinkatesh (1986) and was used in Fu, Kraft and Zhang (2012) and Heydari, Hashemi and Shokrani (2016), Ayagi and Kurawa (2019) as follows:

$$Spr_{i,t} = \frac{Ap_{i,t} - Bp_{i,t}}{\frac{Ap_{i,t} + Bp_{i,t}}{2}}$$

Where:

$Spr_{i,t}$ = Bid-ask spread of firm i in the year (t)

$Ap_{i,t}$ = Average of the ask price of firm i in the year (t)

$Bp_{i,t}$ = Average of the bid price of firm i in the year (t)

The Bid-ask spread is expressed in absolute value and Fu, Kraft and Zhang (2012) explained that the higher the level of IA, the wider the spread. Employing the bid-ask spread as a proxy for information asymmetry is an important element of market microstructure theory, but the model was criticized for some key challenges and limitations such as measurement bias, valuation friction, reduced liquidity and volatility and data scarcity. For instance, there could be data scarcity in many markets especially those with automated or, conversely, highly infrequent trading. thus, obtaining consistent, real-time bid-ask data could be very difficult (Kwon, 2016) Furthermore, While a wider spread always shows higher adverse selection risk (informed trading), it is not a pure measure and is affected by multiple confounding factors like market volatility, adverse selection, inventory risk and stock split information (Ajina & Habib, 2017). Other research works that employed Bid-ask spread are Kazemi and Rahmani (2013), and Nurcholisah (2016).

iv. High-Low Spread Estimator

This model was developed by Corwin and Schultz (2012) and it is grounded on daily high and low stock prices and could also be used with intraday data (Cerqueira & Pereira, 2013). Ripamonti (2016) explained that it is based on two assumptions. First, the daily high stock prices are initiated by buyers, while low stock prices are initiated by sellers. Second, the volatility component of the high-to-low price ratio increases in proportion to the length of trading interval, whereas the component due to bid-ask spreads does not. The model is as follows:

$$S = \frac{2(e^{\alpha} - 1)}{1 + e^{\alpha}}$$

Where:

S= spread

e = mathematical constant (e basis) of x

α =

Xie (2013) explained that higher spread signifies more uncertainties in the capital market and higher asymmetric information among investors. High-Low Spread Estimator as a measure of information asymmetry has some advantages over other measures that

include high accuracy, capturing information asymmetry, reduced estimation bias and efficiency across time intervals (Lin, 2014; Abdi & Ranaldo, 2017). Some of its limitations are confounding volatility with information asymmetry and significant estimation bias (Tremacoldi-Rossi & Irwin, 2022, Fałdziński et al., 2024).

v. Analysts' Earnings Forecast Dispersion and Error

These models were used in Xie, (2013) based on the arguments that analysts are famous information intermediates in the capital markets who search for relevant information from public and private sources. Their forecast dispersion and error are forward-looking and comprehensive measures of IA; hence, they were employed in previous studies such as Krishnaswami and Subramaniam (1999) and Thomas (2002). Besides, Ohlson (2001) and Bryan and Tiras (2007) as cited in Xie (2013) confirmed that financial analysts forecast not only mirrors or reflect the information delivered by accounting fundamentals, but also contain other relevant information about future earnings of a given firm.

As in Athanassakos and Kalimipalli (2003), Xie (2013) defined Forecast dispersion as disagreement among analysts regarding expected earnings per share (EPS) of a given enterprise. It is a forward looking or progressive variable that captures analysts' anticipation of the firm's future performance. Analysts' Earnings forecast error on the other hand refers to the difference between realized earnings and estimated earnings underlying the stock price of a firm (Danielson et al., 2013). Xie (2013) argued that High dispersion signifies low consensus among analysts' forecasts, and is a signal of low transparency of a firm. Therefore, Firms with higher degree of IA are presumed to have higher forecast dispersion and error.

Forecast Dispersion = (standard deviation of the financial analysts' earnings forecasts/ stock price at fiscal year-end) *-1

Forecast Error = (absolute earnings forecast error i.e. actual-median forecast/stock price at the fiscal year-end)*-1

Analysts' earnings forecast dispersion and error as measures of information asymmetry are suitable for developed markets (Wang & Chou, 2014). Their limitations include management manipulation, limited ability to capture uncertainty and alternative explanations (Papakroni, 2013; Brightbill, 2024)

vi. Volatility of Daily Stock Returns

This was alternatively called by Xie (2013) as the market-adjusted residual volatility of the daily stock returns. The measure was employed based on the notion that higher volatility in stock returns and stock price spread is an indication of more uncertainties in the market and higher level of IA among investors or providers of capital. Thus, as a measure of IA, Xie (2013) quantified the Volatility of Daily Stock Returns as follows:

a. Regress a firm's daily stock returns on market daily returns and obtain its residuals for each year.
b. Determine the volatility of daily stock returns which is the

standard deviation of the residuals

As a measure of information asymmetry Volatility of Daily Stock Returns is suitable for developed and emerging Markets (Muguto & Muzindutsi, 2022). It gives its users benefits like capturing informed trading intensity, provision of better forecasting, high-frequency applicability and reflection of leverage effect (Bhowmik & Wang, 2020).

vii. Information Asymmetry Index

This was developed by Decourt et al. (2024). The model captures analysts' perception about the level of corporate firms' disclosure and information asymmetry. It utilized market and firms' specific proxies that reflect analysts' perception of the level of information asymmetry of companies. It also involves construction of an algorithm generated from Elo ratings and takes into account the perception of analysts that make choose between two corporate firms on the basis of their information asymmetric level. As pointed out by Decourt et al. (2024), Information asymmetry index could be applied in both developed and emerging Markets and might give some advantages over other measures in terms of market-based perspective, unique methodological approach, high association with key proxies.

viii. Johnson and So (2018) Multimarket Measure

Johnson and So (2018) developed Multimarket information asymmetry (MIA) and termed it a 'simple multimarket measure of information asymmetry'. MIA is a measure of information asymmetry developed from unsigned daily trading volumes across both options and equity markets. The model premised that informed traders often decide to trade in options rather than equity markets as a result of higher leverage, especially when they have strong signals. The model focuses on how trades are scattered across equity and option markets and it is based on a study of informed trade in a multimarket setting and relies mostly on volume totals.

MIA was designed to be simple to compute. Because, it requires no complex structural modeling or estimation, instead, it focuses on observed volume data and event study utility. Also, it identifies informed traders and detects shocks. Moreover, it has edge over several other measures of information, because, it has high-frequency, robust performance, predictive power, and (johnson & So, 2018)

ix. Amihud's (2002) Liquidity Measure

This model measures illiquidity that is determined as a daily ration of absolute stock returns to its dollar volume. Amihud (2002) argued that the measurement can be interpreted as the daily price response associated with one dollar of trading volume and hence serving as a measure of price impact. The model demands only daily data on return and volume to calculate and can be calculated for longer time period (Ødegaard, 2018). Amihud (2002) Liquidity Measure was employed by Derrien et al. (2014) in a study of 824 USA publicly traded firms.

Some of the advantages of Amihud (2002) Liquidity Measure according to Armitage et al. (2014) and Ødegaard (2018) are the ability to capture trading volume for a stock and being simple to construct. However, it has been criticized by Kim & Kim (2023) for being size bias and asymmetry in returns.

x. Price Non-Synchronization (PNSY)

PNSY was popularized by Kelly (2014). It measures the extent to which a stock's price changes are caused by firm-specific, idiosyncratic information instead of broad market trends. It quantifies how little a stock's returns move along with the total market or industry, indicating the level of idiosyncratic information not captured by market-wide movements. When stock price synchronicity is at a very low level (that is, non-synchronization is high), it usually shows that company-specific information is being absorbed, which may indicate a higher, yet more turbulent, flow of information to informed investors.

Price Non-Synchronization (PNSY) is often expressed as:

$$1-R^2$$

R^2 is obtained by regressing the stock returns on the market returns (Muslim & Setiawan, 2021). PNSY was used in Muslim and Setiawan (2021) as a measure of information asymmetry. Kelly (2014) in Muslim and Setiawan (2021) argued that low R^2 indicates poor quality of information environment and high degree of information asymmetry as well.

xi. The Minimal Question Subset (MQS)

MQS was used in (Salhi, 2020) to measure the extent of information gap (asymmetry). It involves subset of questions, whose answers can provide all the information needed in a given situation. MQS serves as a logic-based, axiomatic approach that quantifies the minimum information needed to bridge the gap between two parties in a given transaction. It identifies the smallest set of questions required to minimize an information imbalance, accounting for the fact that answering certain questions can make others redundant. The size or complexity of the MQS is employed in measuring the intensity of extent of asymmetric information, that is, a larger, more complex MQS suggests a greater level of asymmetry. MQS is applicable in both developed and emerging Markets. Moreover, it identifies minimal required information, allows quantifiable comparisons and reduces irrelevant data (Salhi, 2020).

xii. Ratio of Zero and Missing Return Days to Total Trading Days

This is a liquidity-based measure for quantifying information asymmetry in which higher value of the proxy suggests lower liquidity and increased information gaps. Ratio of zero and missing return days focuses on firm-specific non-disclosure, acting alongside bid-ask spreads or Amihud (2002) model to identify increased, or "noisy," trading environments. The model is employed alongside analyst coverage changes to assess information asymmetry's impact on cost of debt (Kelly & Ljungqvist, 2012).

Frequency of missing data or returns usually implies that informed traders are not trading or information is not being factored into prices, showing high information asymmetry. A higher ratio suggests that the stock is less liquid and is usually linked with a higher cost of borrowing or, as in the case of analyst coverage, higher credit events. The measure was used in Derrien et al. (2016).

xiii. The Magnitude of Earnings Announcement Surprises

Earnings surprises can be seen the difference between realized earnings and the median of the latest prevailing analyst forecasts. The magnitude of earnings announcement surprises is used as an effective proxy for quantifying information asymmetry between company's insiders and external investors (Derrien et al., 2014). Large and unexpected deviations from analyst forecasts generally suggest a wider, pre-existing gap in information, leading to higher adverse selection costs (bid-ask spreads) for uninformed traders. A higher magnitude of surprise (the absolute value of the difference) implies that market participants' prior beliefs (analyst forecasts) were far from reality, suggesting that informed traders likely held a significant informational advantage over the public prior to the announcement. This measure was used in Derrien et al. (2014).

xiv. Volatility in Market Reactions

Volatility in market reactions, especially increased bid-ask spreads and options suggests volatility and hence, serves as a measure of information asymmetry around earnings announcements. Asymmetry, or the gap between informed and uninformed investors, usually arises before an earnings announcements as a result of private information trading, then drops afterwards as the information reaches public. Increased volatility, especially in option prices (implied volatility spread), implies that informed traders are active before the announcement, which assist in accelerating the market's response to the new information, sometimes reducing under-reaction (Lei, Wang & Yan, 2020; Kim et al., 2024). The approach enables investors and researchers to understand the extent of insider information and the speed at which public information is factored into the market. Volatility in market reactions as a measure of information asymmetry was used in Derrien et al. (2014).

xv. Trading Volume Coefficient of Variation (VCV)

VCV is a financial metric that is used by analysts to measure information asymmetry. It is computed as the ratio of the standard deviation of trading volume to its mean. A higher VCV indicates greater informed trading, often found in smaller, less liquid, or riskier firms. VCV is considered as very effective measure, as it increases with the proportion of informed trading. Trading VCV serves as a critical indicator of information asymmetry, as informed investors with private information generate abnormal volume while attempting to profit, causing adverse selection problems for uninformed investors.

VCV is usually higher for smaller, younger firms with low analyst coverage, high volatility, and low liquidity. Lof and

Van Bommel (2023) employed VCV in the study of cross-section of US stocks. They obtained VCV from daily observations of trading volume and produced convincing evidence supporting the hypothesis that VCV indicates information asymmetry. The model is suitable for developed and emerging markets and benefits users for being empirically tractable and sensitive, independent from volume surges, unitless and scale-invariant (Lof & van Bommel ,2023)

2.2 Theoretical Review

Theory of Asymmetric Information was developed by Akerlof (1970). It proposes that uneven access to information in certain economic transactions disrupt the normal market for the exchange of goods and services. Asymmetric information theory is termed as deviation from perfect information and explains a situation in which two parties (corporate firms borrowing to finance investment project and lenders) possess uneven, unequal or disproportionate information about a given transaction. This imperfect knowledge, according to the theory, brings about imbalance of power between the parties and further creates information asymmetric problems/risks such as adverse selection and moral hazards.

Verdi (2006) and Biddel et al. (2009) further explained how presence of IA in the capital market ignites the adverse selection and moral hazard risks. Using adverse selection model, Biddel et al. (2009) explained the likelihood of managers to capitalize on the level of IA and issue overpriced shares in order to raise excess capital that might be used in financing unprofitable investment. Xie (2013) also explained that existence of IA in the capital market worsens adverse selection problem/risk.

On moral hazards risk, information asymmetric theory can be said to support the proposition of agency model, since, the presence of IA itself can be linked to the agency relationship between managers and investors. Thus, the argument of information asymmetric theory on moral hazards risks is in consonance with moral hazards model of agency theory. On this also, Verdi (2006) attributed the moral hazards risk to the level of IA between managers and shareholders.

3.0 Methodology

As the main aim of this paper is to review the measurement models of information asymmetry, it adopted conceptual review approach in order to gain a deeper understanding of the existing models and rationale behind using them as measures of information asymmetry. Relevant empirical research articles published in various Accounting and Finance journals from 2010 to 2025 were used as the main source of data for the study. The main inclusion criteria used is that the articles must have information asymmetry in or as part of their title and must have clearly used measurement model(s) of information asymmetry.

4.0 Conclusion

Based on the conceptual review conducted in the previous section, this

paper concluded that majority of the measurement models of information asymmetry that have been used in previous relevant studies are suitable for developed and emerging markets and so, there can be some limitations while applying them in underdeveloped/frontier markets. The models offer several specific benefits and none of them are without any limitation. Therefore, this paper suggested that investors, corporate firms, financial analysts and future researchers should always take into account the nature and peculiarity of their markets, the benefits and limitations of each model before deciding on which model to use while measuring the value of information asymmetry.

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ASSESSING THE SOCIO-TECHNICAL READINESS FOR ICT-ENABLED FLOOD DISASTER MANAGEMENT IN COMMUNITIES ALONG THE BANKS OF THE RIVER BENUE IN NORTH-EASTERN NIGERIA

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Abstract
The successful integration of Information and Communication Technology (ICT) into disaster management is contingent upon the socio-technical readiness of the target communities. This study assesses the ICT readiness composed of infrastructure, accessibility, digital literacy, and socio-cultural acceptance within communities along the banks of the River Benue in Adamawa and Taraba states (Upper Benue catchment). The region is regularly devastated by severe flooding, necessitating a qualitative phenomenological approach to understand the lived experiences of those affected. Data were collected through semi-structured interviews (n=10) with key stakeholders, including community leaders, government agency officials, academics, and NGO representatives. Thematic analysis reveals a serious deficiency in ICT readiness. The findings include erratic mobile network coverage forcing reliance on urban signals; high costs of ICT devices and limited access to data; low digital literacy compounded by complex user interfaces; and a persistent preference for traditional communication channels such as radio and word-of-mouth. The study frames these findings through the Socio-Technical Systems (STS) theory. This analysis reveals a critical misalignment between the technical potential of ICT and the social subsystems (economic capacity, skills, cultural norms) of these flood-prone communities, specifically regarding economic capacity, digital skills, and cultural norms. The study concludes that without interventions in building human capacities and adaptive, low-cost infrastructure, ICT-based flood management strategies will remain very difficult to realize. Finally, the study proposes a community-centric readiness framework that prioritizes hybrid communication systems, subsidized access, and localized digital literacy programs as condition for effective deployment of ICT in Flood Disaster Management.

Keywords: ICT Readiness, Digital Divide, Socio-Technical Systems, Flood Disaster Management, Qualitative Research

1.0 Introduction

Floods constitute a significant and recurrent threat to sustainable development in Nigeria, with the communities along the banks of River Benue in the North-East being among the most vulnerable (NIHSA, 2023; Danhassan et al., 2023). The devastating impacts of events in 2012, 2022, and beyond have highlighted the weaknesses and shortcomings of the traditional top-

down disaster management approaches, which are often reactive in nature (Adefisoye, 2020; Musa et al., 2021). In response, there is a global and national push towards leveraging Information and Communication Technology (ICT) for enhanced forecasting, early warning, response coordination, and recovery planning (IFRC, 2020; Wang et al., 2020).

Theoretical and empirical literature from contexts like Bangladesh, Japan, and India commends the transformative potential of ICT tools such as Geographic Information Systems (GIS) and remote sensing to mobile alerts and social media (Ahmed & Kelman, 2017; Kaur et al., 2022). However, the contextualization of these technological solutions into local rural areas like communities flanking the River Benue banks in Nigeria often overlooks a fundamental prerequisite: ICT readiness. Readiness here refers to the composite state of a community's or region's technological infrastructure, access to devices, digital literacy levels, and the socio-cultural willingness to adopt new technologies (Chanyagorn & Kungwannarongkun, 2011; Abbasi et al., 2025). In essence, it requires answers to this: do these communities possess the foundational capacity to receive, process, and act upon ICT-mediated information?

Preliminary evidence from the Nigerian context points to a significant digital divide, characterized by poor rural network coverage, high data costs, and low digital skills (Ajayi, 2022; Olorunfemi & Raheem, 2023). A context-specific assessment of ICT readiness within hyper-vulnerable, flood-prone agrarian communities remains scarce. Most of the studies have focused on the technical potential of monitoring systems (Basha & Von Reitzenstein, 2021) or analyzed flood risk management through the lens of urban infrastructure (Nkwunonwo et al., 2016). This leaves an important gap in understanding the socio-technical preconditions for success in rural, agrarian settings (Heeks, 2018).

In line with this, the study, addresses the research question: What is the extent and nature of ICT readiness in communities along the banks of the River Benue in North-Eastern Nigeria for flood disaster management? It employs a qualitative, phenomenological approach to capture the lived experiences and perceptions of key stakeholders. The analysis is guided by the Socio-Technical Systems theory (Trist & Bamforth, 1951; Mumford, 2000), which provides a robust lens for examining the interdependence and necessary "joint optimization" of technical tools (ICT) and social subsystems (community structures, skills, economics).

This study's contribution is twofold. First, it provides an empirical diagnosis of ICT readiness gaps in a critically vulnerable region. Second, it moves beyond mere identification of barriers to propose a theoretically informed, community-centric framework for building readiness. This framework is essential for ensuring that substantial investments in ICT for disaster management do not become wasted but instead result in a tangible resilience gain for the most at-risk populations.

2.0 Literature Review and Theoretical Framework

ICT Readiness in Disaster Management

ICT readiness is a multidimensional construct. For disaster management, it extends beyond mere ownership of a mobile phone. Frytsiuk et al. (2024) conceptualized it as the ability to successfully adapt, utilize, and integrate ICTs into processes to attain desired goals. Key dimensions include:

i. Infrastructure Availability: The presence of reliable electricity, mobile network towers, internet connectivity (broadband/3G/4G), and broadcast systems (Rahman, 2024).

ii. Accessibility: The economic and physical ability of individuals and communities to obtain and use ICT devices and services, considering factors of cost, location, and language (Van Dijk, 2006).

iii. Digital Literacy and Skills: The competencies required to operate devices, navigate software, interpret digital information, and communicate effectively using technology (Egere & Egere, 2023).

iv. Socio-Cultural Acceptance: The perception of ICT's usefulness, compatibility with existing practices, and trust in technology-driven information (Rogers, 2003).

In least developed countries like Nigeria, the digital divide the gap between those with and without effective access to digital technology often manifests acutely in rural areas (Akanbi & Akanbi, 2012). Studies in Nigeria highlight that over 70% of the rural population struggles with access, affordability, and skills (Sunday et al., 2023). For flood management, this divide is lethal; an accurate early warning is less effective if it cannot reach the intended target population in an understandable and actionable form (Paul et al., 2021).

Socio-Technical Systems (STS) Theory as an Analytical Lens

The Socio-Technical Systems theory, pioneered by Trist and Bamforth (1951), posits that organizational (or community) performance is optimized only when its social and technical subsystems are designed to work in harmony. The technical subsystem includes tools, tasks, and technologies, while the social subsystem encompasses people, their skills, relationships, norms, and cultural values (Mumford, 2000; Abbas & Michael, 2023).

The theory's core tenets relevant to this study are:

i. Interdependence: Social and technical elements are inextricably linked. A change in one for instance, introducing a new flood alert app will necessarily affect the requiring of new user skills, altering communication patterns.

ii. Joint Optimization: Success is not achieved by maximizing the technical subsystem in isolation (e.g. deploying the most advanced satellite imagery) but by designing both subsystems to complement each other. A simple, robust technology that aligns with community capabilities may be more optimal than a complex one.

iii. Adaptation and Bricolage: In contexts of constraint, users often engage in adaptive "bricolage," creatively combining available technical

elements with social practices to achieve goals (Orlikowski, 2000).

Applying STS to ICT for disaster management in rural Nigeria directs analytical attention to the fit between sophisticated ICT tools and the social reality of agrarian, often low-literacy communities. It predicts that failures in ICT integration are not merely technical but stem from a poor socio-technical fit (Clegg, 2000). Previous studies on ICT in Nigerian disaster management (e.g., Wilson et al., 2018) have noted challenges but lack this cohesive theoretical framing to explain the systemic nature of the readiness gap. This study fills that void by using STS to structure its investigation and interpret its findings.

3.0 Methodology

Research Design and Philosophy

This study adopted a qualitative research design within the interpretivist paradigm. Interpretivism contends that reality is socially constructed and best understood through the meanings people assign to their experiences (Creswell, 2013). A phenomenological approach was specifically employed to deeply explore the lived experiences and subjective perceptions of stakeholders regarding ICT readiness (Sandelowski, 1995). This approach is justified as the research seeks to understand the *essence* of the ICT readiness phenomenon from the perspective of those who enact and experience it daily.

Study Area

The study was conducted in selected communities (such as Ribadu, Dasin, Wuro-Bokki, Jambutu, Gwadabawa, Jimeta City, Nbgalan, Numan city, Lau town, Bandawa, kwata, Sendirde, Ibi town, Nwunyo, and Sarkin Kudu) across six Local Government Areas (LGAs) in Adamawa (Fufore, Numan, Yola North) and Taraba (Gassol, Ibi, Lau) states, all within the Upper Benue River Basin. These areas are officially categorized as high to medium flood risk (NIHSA, 2024). See Fig. 1

Figure 1. Map of the River Benue and the communities along its banks in Adamawa and Taraba states



Source: Generated by the Researcher

Sampling Technique

In line with Patton (1990), Purposive sampling techniques were used to select ten (10) key informants who possessed rich, information-dense experiences relevant to the research question. The sampling comprised, Representatives from the National Emergency

Management Agency (NEMA), Nigeria Hydrological Services Agency (NIHSA), Nigerian Meteorological Agency (NiMet), and the Upper Benue River Basin Development Authority. Also, a representative from the Nigerian Red Cross. scholars (Experts/specialists) in ICT and Environmental Management from universities in the selected states, the *Sarkin Ruwa* (Leader of fisheries community) and *Sarkin Noma* (the leader of famers' community), traditional authorities overseeing water faming matters, an advocate focusing on community and environmental issues.

Method of Data Collection

Data were collected through semi-structured, in-depth interviews conducted between June and August 2024. An interview guide was developed based on the dimensions of ICT readiness and STS theory. Interviews lasted 45-75 minutes, were conducted in English or Hausa (translated by professional translator), audio-recorded with consent, and transcribed verbatim.

Method of Data Analysis

Following the framework of Nowell et al. (2017), thematic analysis was employed using a hybrid inductive and deductive approach. Initial codes were generated deductively based on the Socio-Technical Systems (STS) framework (such as infrastructure and economic capacity), while inductive coding allowed for new themes to emerge directly from the informants' narratives regarding local cultural norms and flood experiences.

The analysis proceeded through five stages: (1) repeated reading of transcripts for immersion; (2) generating initial codes by deconstructing complex data into actionable tags that highlighted both semantic and latent information; (3) searching for themes by collating related codes; (4) reviewing and refining themes against the entire dataset; and (5) defining and naming themes to ensure internal homogeneity.

NVivo 12 software was utilized beyond simple data storage; it served as the primary tool for coding management, category grouping, and cross-case querying. Specifically, NVivo's "nodes" were used to organize the hierarchical coding structure, and word frequency queries were performed to identify recurring patterns before manual thematic refinement. To ensure trustworthiness, member checking was conducted by sharing summaries with participants for validation, and a digital audit trail of all analytical decisions was maintained within the NVivo project file.

Ethical Considerations

Ethical approval was granted by the relevant government agencies, groups, and individual participants in the study. Informed consent was obtained from all participants, emphasizing voluntary participation, anonymity, and confidentiality. Participants were assigned codes (e.g., Informant A1 for NEMA, Informant B4 for Sarkin Ruwa) to protect their identities in reporting.

4.0 Results and Discussion

The analysis yielded one overarching theme ICT Readiness as a Critical Deficit supported by four interrelated sub-themes that map onto the STS framework's social subsystem, highlighting the misalignment with potential technical tools. The findings

reveal a landscape of profound socio-technical misalignment. While government agencies are advancing in technological capability, the end-user communities face a tripod barrier; weak infrastructural, economic inaccessibility, and skill deficits

Sub-theme 1: The Illusion of Network Availability Unstable and Exclusionary Infrastructure

The foundational technical element of mobile connectivity was found to be critically lacking. While government maps may show network coverage, the reality on the ground is one of profound instability. Informant B5 (Sarkin Noma) stated,

> We don't usually depend on mobile networks for communications because it is epileptic here… In some cases where there are towers, you will find that many villages tap from it, and at times, the proximities between these communities affect the service effectiveness.

This sentiment was echoed by an ICT academic (Informant B2), who noted that the hilly terrain and valley locations of many communities further degrade signals, forcing residents to "climb trees or hills" to get a connection. This finding aligns with Rahman's (2024) assertion that infrastructure deficiency is a primary barrier. From an STS perspective, the technical subsystem (network towers) is neither optimally located nor sufficiently resilient. Consequently, it fails to serve the social subsystem's (dispersed rural communities) geographical and operational needs, especially during adverse weather when floods are imminent.

Sub-theme 2: The Economics of Exclusion Cost as a Primary Barrier to Accessibility

Even where network coverage is available, the high cost of complementing hardware poses a significant economic barrier, often limiting access to more affluent demographics and further widening the digital divide. The social subsystem's economic reality directly conflicts with the cost of the technical tools. Informant B4 (Sarkin Ruwa) explained, "The majority of our people don't use Android devices, talk more of computers… some of these tools are expensive to buy, and even when you manage to buy them, you still have to purchase data.".

This highlights a two-tiered economic barrier: the capital cost of hardware and the recurring cost of data. The digital divide, as described by Van Dijk (2006), is vividly evident. The community's agrarian economy, already vulnerable to flood shocks, often limits their ability to consistently support these costs. Consequently, ICT remains the domain of a specific demographic, primarily younger or urban-connected individuals, rather than a communal resource for disaster preparedness.

Sub-them 3: Complexity and Alienation; The Digital Literacy Gap

Technical readiness is not just about possession but about competent use. A significant digital literacy gap exacerbates the accessibility problem. Many participants reported prevalent unfamiliarity with sophisticated devices

and applications. Informant B4 (the Sarkin Ruwa or Leader of fisheries community) noted that many people are "unfamiliar with how to operate them due to their complex nature." Informant B2, the ICT expert, emphasized that "ease of use is a critical pillar in ICT acceptance" and that interfaces must consider local languages and low-literacy users, potentially integrating symbols or voice commands.

This sub-theme speaks to the "skill access" barrier (Van Dijk & Hacker, 2003). The technical subsystem, often designed with urban, literate users in mind, presents a complexity that the social subsystem's current skill set cannot decode. It was also revealed that without concerted digital literacy efforts, even free devices would see limited effective use for disaster management.

Sub-theme 3: The Persistence of the Familiar; Trust in Traditional Channels over Digital Uncertainty

Socio-cultural acceptance, a key component of the social subsystem, heavily favors established communication channels. Despite recognizing ICT's potential, there is a well-established reliance on radio and interpersonal networks. Informant B4 stated that communities "prefer listening to radio stations where information is passed in a language they understand." Informant A2 (NIHSA) acknowledged this by stating they maintain traditional water gauges that are "easily observed and understood by the locals."

This preference is rational. Informant B2 revealed that radio is cheaper, requires less skill, use local languages, and are perceived as more reliable during power outages Furthermore, as Informant B5 (The Sarkin or Head of farmers community) revealed, communities have developed their own informal ICT-augmented systems, using phones to warn downstream kinds of rising water levels. This is a clear example of STS's bricolage adapting available technology (basic mobile phones) to reinforce a trusted social practice (kinship-based warning). This indicates that readiness initiatives must be built upon, not attempt to replace, these organic, trusted systems.

Synthesis: The Socio-Technical Misalignment

The synthesis of results identifies a persistent pattern of divergence between agency-level technical capabilities and community-level social realities. Across all sub-themes, the empirical evidence reveals that while government stakeholders (Informants A1–A4) have prioritized high-capacity tools such as real-time GIS and automated alerts, these advancements remain functionally decoupled from the target beneficiaries.

Data from the field highlights three recurring barriers: (1) economic constraints that limit device ownership; (2) literacy gaps that hinder the use of sophisticated applications; and (3) demonstrated reliance on analogue channels (Informants B2, B4). These patterns suggest that the "joint optimization" of social and technical subsystems is currently unachieved. This "readiness disconnect" indicates that technical preparedness at the institutional level does not translate into community resilience. Consequently, the evidence suggests that the effectiveness of accurate flood forecasting is mitigated by

these socio-technical frictions, which weaken the final, critical link in the disaster communication chain.

5.0 Conclusion and Recommendations

Conclusion

This study assessed the ICT readiness of the Upper River Benue communities for flood disaster management through the lens of Socio-Technical Systems (STS) theory. The empirical evidence indicates that community readiness remains a primary constraint to the effective utilization of digital flood-management tools. Data from informants and field observations reveal that this lack of readiness is a result of interlinked systemic factors: specifically, the unreliability of physical infrastructure, the economic cost of device acquisition, and measured gaps in digital literacy.

These findings demonstrate a misalignment between the advanced technical subsystems proposed by government agencies and the social and cultural subsystems of the agrarian communities. The data suggest that current ICT deployment strategies, which focus primarily on technical preparedness at the agency level (Informants A1–A4), do not yet account for the community-level reliance on traditional communication channels. Consequently, the study concludes that without strategic investment in the socio-technical foundations of these communities, the implementation of sophisticated disaster-management technologies may yield limited results and potentially exacerbate existing disparities in disaster resilience.

Recommendations

Based on these findings, we propose a Community-Centric ICT Readiness Framework with three strategic pillars:

1. **Build Hybrid and Resilient Infrastructure:**

Government should mandate telecommunications companies, as part of their licensing obligations, to deploy a mix of robust terrestrial towers and supplementary satellite-based community hotspots in flood-prone areas.

Promote and subsidize the use of low-power, durable technologies like satellite radios and simple mobile phones with extended battery life, which can function when networks are degraded.

2. **Launch Targeted Subsidy and Literacy Programs:**

State Emergency Management Agencies (SEMAs) should partner with NGOs to create “Flood Preparedness Tech-Packs” subsidized kits containing a basic solar-charged phone, a pre-programmed radio, and vouchers for emergency data.

Integrate practical digital literacy for disaster response into adult education programs and school curricula in vulnerable LGAs. Training should be conducted in local languages and focus on actionable skills: receiving SMS alerts, using a simple warning app, and reporting incidents via designated numbers.

3. **Design for Socio-Technical Integration (Co-Design)**

ICT solutions for these communities must be co-designed with end-users. As suggested by informants, this means

multilingual interfaces, icon-based navigation, and voice-based alerts.

Formal systems should seek to integrate with, not replace, informal community warning networks. For instance, official alerts could be designed to be easily sharing via popular platforms like WhatsApp, which are already in limited use, and be immediately broadcast via dedicated community radio frequencies.

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SURVIVING THE MURKY WATERS OF MIGRATION: UNDERSTANDING THE PLIGHTS OF THE VICTIMS OF HUMAN TRAFFICKING

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Abstract

This paper interrogates the complex intersection between migration and human trafficking, focusing on the experiences and vulnerabilities of victims navigating irregular migration pathways. It argues that while migration is often pursued as a strategy for economic survival and social mobility, structural inequalities, weak governance frameworks, and restrictive migration regimes expose migrants to exploitation by trafficking networks. Drawing on secondary data and case-based illustration from previous studies, the study highlights how factors such as poverty, unemployment, gender inequality, conflict and lack of awareness create conditions that traffickers exploit. The paper further examines the mechanism of recruitment, transportation, and control often employed by traffickers, emphasizing deception, coercion, sexual abuse, drug use and inducement, and abuse of power. Particular attention is given to the physical, psychological, and socio-economic consequences suffered by victims, including forced labour, sexual exploitation, stigmatization, child abuse, and limited access to justice. The paper concludes that addressing human trafficking within the broader context of migration requires a multidimensional approach that goes beyond border control to include socio-economic improvement, public awareness, strengthening legal frameworks, and international cooperation. It recommends victim-centered policies that prioritize protection, empowerment and sustainable reintegration, alongside proactive measures to tackle the root causes of irregular migration. There is also the apparent need to strengthen NAPTIP Act to ensure that arrest and prosecution of traffickers is pursued without fear or favour. By deepening understanding of victims' experiences, the paper contributes to ongoing scholarly and policy debates on migration governance and human security.

Keywords: migration, human trafficking, legal framework, forced labour, sexual exploitation

Introduction

On the 28th July, 2021 in a news monitored on Al-Jazeera, it was reported that 57 people were drown off the coast of Libya. These were victims of human trafficking struggling to find their way to Europe through Libya. This is reported daily by news media in Nigeria and other countries in Africa. The situation is very dicey given the increasing socio-economic deprivation facing the average Nigerian in the struggle to survive. Human trafficking has become the norm rather than the exception in the efforts of many young Nigerians to find the means of livelihood or to make ends meet. However, in the process, they grapple with the dangers of losing their lives through several undetected ways employed by the traffickers in human persons.

Several Nigerians get indulged in migration which often degenerates into trafficking. In certain situations, men and women who desperately seek for a better life or struggle to run from the harsh economic conditions occasioned by the declining economic potentials of the country find themselves in the trafficking ring. Human trafficking cuts across almost all strata of the society with various professionals, artisans, school drop outs, etc becoming victims of the dangerous trade. It is estimated that over 143 countries of the world are linked to trafficking in persons and therefore the modern slave trade knows no boundaries. An estimated 46 million people (cited in Yakubu, 2021: p.21), are believed to be either coerced, kidnapped or forced into different forms of human trafficking exploitation such as sex trade, domestic servitude or forced labour. According to UNICEF report in 2002, over 80% of the prostitutes of African origin operating in the Italian sex trade are Nigerian women. This situation is not only disturbing but negatively affects the political and foreign image of Nigeria as a foremost black African nation and a power house in global politics. The chapter is structured into six sections, starting with the first which is the introduction. Section two reviews the key concepts in the discourse on human trafficking and migration. The push and pull triggers are addressed in section three while section four examines the plights of the victims of this deadly trade. In section five, the consequences of trafficking in humans as it affects the victims are clearly brought to the fore and the concluding section presents the recommendations.

1. Unpacking the Key Concepts in the Discourse: Human Trafficking and Migration

There is no doubt that, concepts are very important in understanding any scientific enterprise. In social sciences, concepts prepare the ground and set the tone for any intellectual discourse. It is in this context, human trafficking and migration must be clarified.

Trafficking in humans has been practiced by mankind for a long period of time. Slave trade as a form of human slavery has transcended and affected human interaction before its abolition over 200 years ago. However, human trafficking as a modern form of slavery with devastating effects on human lives have assumed very dangerous and sophisticated dimensions. In fact, the contemporary global trafficking in human persons has assumed the proportion which can be termed as serious threat to global healthy living and peace. It is imperative to attempt an overview of what human trafficking entails.

According to the UN Trafficking Protocol; human trafficking can be defined as:

"Trafficking in persons shall mean the recruitment, transportation, transfer, harboring or receipt of persons, by means of threat or use of force or other forms of coercion of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the

purpose of exploitation (as cited in Shatsari, 2010)

The definition painted above provides a comprehensive coverage of the heinous crime of human trafficking in both content and dimension. Yet another definition considers human trafficking as the practice of exploiting adults and children for use as commodities or objects in conditions of sexual and labour servitude. It is largely referred to as modern slavery, because it is the illegal trade in human beings through recruitment or abduction by means of force, fraud or coercion for the purposes of forced labour, debt bondage or sexual exploitation (ILO, Global Report, 2017). Victims of human trafficking face gory forms of suffering and degradation in the hands of their sponsors and traffickers. The situation is unimaginable and devastating.

The issue of migration have been with human society since the creation of man. In fact, the central process that dominates the formation of people anywhere in the world is migration (Analysis, 2004). Migration is central to human existence and development, and has shaped the transformation of hitherto developed and underdeveloped formations.

It is believed that the concept of migration is from the latin word *migratio,* which was first recorded in 1606-1615. It can be defined as the movement of a complete population of people or animals from one area to another. It is usually a response to changes in conditions of living; economy; temperature or food supply. Among animals such as insects, mammals and birds, it could be as a result of temperature, food supply or daylight, often undertaken for the purpose of breeding.

Human migration is the movement of people from one place to another with the intentions of settling, permanently or temporarily in a new location. Such movements could be in search of work, or economic opportunities, or to study or for tourism. Migration is a global phenomenon, which can be classified into forced, voluntary or imposed on the migrants by circumstances (SIRA, 2019). Unarguably, migration is a marker of globalization that has become part of our humanity. However, what worries the world is the unsafe migration that results in all forms of exploitation, including human trafficking and migrant smuggling. In fact, human trafficking, a modern day slavery that knows no border is indeed migration gone wrong (Adeniyi, 2019). Migration has been with man since the earliest times and cannot in any way be completely halted. However, it is its evil manifestation in the form of human trafficking that needs to be controlled, regulated and checkmated to minimize human exploitation and degradation. Scholars of migration have argued that migration can be either of three, or four, or five types. Internal migration which is considered as movement within a state, country or continent, such as a movement from one city, district or country within a state or country. For example, in the United States of America, there was the Mikey movement from New York to New Hampshire. External migration involves movement to a different state, country or continent, it is an age old phenomenon. But, the most dramatic example of it took place in modern times, is the Great

Atlantic migration where millions of people left Europe for North America in the 1840s, mostly from Germany and Ireland (www.kids.britannica.com).

Emigration means leaving one place to move to another. Immigration- moving into a new place, a complete movement or relocation to another place. Finally, return migration- moving back to where one originally came from, a sort of home coming. Return migrants can be a source of growth for the home country through their accumulated knowledge and skills. Student migrants who return home after studying abroad are very good example. Although, human trafficking and migration does not connote the same thing, human trafficking is the negative outcome of migration with incredible consequences. Human trafficking is a multi-dimensional problem, which can be considered as a moral issue, a criminal problem as well as a human rights and a labor matter. Dealing with the menace would require a multi-faceted approach. In fact, human trafficking is the fastest growing criminal industry in the world and the world's third largest criminal enterprise, after drug dealing and gun running, with an estimated annual revenue of 9.5 billion USD, according to the United Nations figures (cited in Lipede, 2007). Recent estimates by the International Labour Organization indicate that human trafficking and forced labour generate approximately 236 billion USD annually in illicit profits worldwide. While this figure is widely cited, some analysts argue that it may underestimate the true scale of the illicit economy, with alternative estimates suggesting revenue approaching 500 billion USD. These figures underscore the economic centrality of human trafficking within global organized crime networks (ILO, 2024). The United Nations Trafficking Protocol has clearly and unequivocally identified seven forms of trafficking as listed below:

1. Trafficking for the exploitation of prostitution of others;
2. Trafficking for other forms of sexual exploitation;
3. Trafficking for forced labor;
4. Trafficking to place somebody in a condition of servitude;
5. Trafficking for the purpose of enslavement of somebody;
6. Trafficking for the purposes similar to slavery;
7. Trafficking for the purpose of removal of organs from human beings (as cited in Shatsari, 2010, p.196).

There is no doubt that currently, the criminal practice of trafficking exists under all the seven forms listed above and victims suffer from the heinous activities of the traffickers.

2. **Methodology adopted for Review**: From the outset, this paper is a review article meant to interrogate the intersection between migration and human trafficking with specific focus on Nigeria. Migration and human trafficking are cross-cultural phenomena. As such, discussion on them will cut across several countries because some of the countries are the source, transit, destination points, as clearly presented in the paper. The paper adopts a qualitative research design relying exclusively on

secondary data sources. Data were collected from existing scholarly publications, including journal articles, published books, government publications, reports from international organizations such as International Organization for Migration, United Nations Office on Drugs and Crime, International Labour Organization, United Nations International Children Emergency Fund, as well as Conference papers, credible online databases and news extracts from reputable media outlets such as Aljazeera, Channel News and CNN. The paper employs documentary analysis to critically examine causes and consequences of migration and human trafficking with particular emphasis on Nigeria. Relevant materials were purposively selected based on their relevance, credibility and recency. Data generated were synthesized and analysed where recurring themes such as poverty, unemployment, weak border governance, conflict and insecurity, irregular migration routes and exploitation networks were identified, categorized and interpreted to generate insights into the relationship between migration and human trafficking. This methodological approach is suitable because it enables an in-depth understanding of the phenomenon without direct field interaction, while drawing on a broad range of existing evidence and expert analyses.

3. Migration and Human Trafficking: The Push and Pull Triggers

Migration is a global phenomenon. There is hardly any country in the world, which has not experienced one form of migration or the other. In some countries, migration is generally internal as a result of several internal factors which will be interrogated later in this section. It is reported that more than 270 million people live outside their countries of origin. Currently, one out of thirty people on earth live in other peoples' land (migration today; world101.cfr.org, accessed 15/9/2022)

In fact, there is absolutely nothing wrong with movements across the global landscape, however when such movements become highly exploited and engendered for profit making, it renders migration dangerous and degenerate into human trafficking. But, what is responsible for this trafficking in humans? Why do people choose to leave their country of origin and for what reasons? What are the attractions that push people to migrate or get involved in trafficking? What are the push and pull triggers that precipitate trafficking? We start with the push factors which are examined below:

1. Harsh economic conditions: Nkrumah once argued that seek first the economic kingdom, and all others shall be added on it. The economy must be in good standing before nations can grow. The collapse of the oil boom in the late 1970s and the imposition of the Structural Adjustment Program (SAP) in the 1980s at the

instance of the Bretton Woods institutions led to the trying times for the majority of Nigerians. SAP has led to the decline in the purchasing power of the naira and low capacity utilization of industries which in turn contributed to a decline in per capita income and a collapse of social services (Lipede, 2007). In addition, to the above, the collapse of the power sector has led to the closure of key manufacturing industries in Lagos, Kano, Kaduna, Port Harcourt and other cities which has aggravated the unemployment situation in the country. The implementation of neo liberal policies has further accentuated inflation, and the rising cost of food items in the country. The economic deprivation has negatively impacted on the living conditions of the people, thus the resort to seek for alternative means of survival, which often leads to migration or exploiting the vulnerabilities of the victims to be trafficked out of the country. According to the CNN, in the news monitored on 17/09/2022, over 11,000 immigrants mostly Cubans and Venezuelans moved into Florida, in search of better economic opportunities. This may not be unconnected with the biting economic deprivation in these countries occasioned by the falling oil prices in the global economy.

2. Heightened levels of conflict: Currently, conflict has permeated the global space with devastating erosion of the rights of the victims. Conflict over the control of resources; identity conflict; conflict of citizenship question; the insecurity occasioned by the terrorism around the world have all pushed the people to a dangerous precipice. In Nigeria, the insurgency in the North East; the banditry and kidnapping in the North West and South West as well as the heightened agitations of separation by regional warlords such as the IPOB in the South East has accelerated internal migration in the country. In trying to escape from the conflicts and seek solace for a peaceful life, some others may explore the human trafficking alternative where they can enjoy better economic prospects in a peaceful environment. The recent Russian-Ukrainian conflict has created mass migration of people across Europe. For instance, many Ukrainians have crossed into Poland and Germany. This situation may be exploited either now or in the foreseeable future into the trafficking belt. As a consequence of the several years of conflict in Syria, Syrian women and girls are sold into sexual slavery in Lebanon (www.aljazeera.com, accessed 18/9/2022)
3. Increased levels of poverty: Reports available from International Agencies indicates that Nigeria is one of the poverty capitals of the world. There is heightened level of poverty

occasioned by the harsh economic conditions in the country. Poverty, manifested in illiteracy, unemployment and poor living standards, therefore appears to be at the heart of human trafficking (Lipede; 2007). Poverty and the lack of opportunities to improve one's position in the society exacerbate the position of many caught in the poverty trap (Lipede, 2007) and in the bid to survive and make ends meet, people explore the human trafficking angle.

4. Increasing spate of insecurity: In the last ten years or more, Nigeria has experienced one of the worst incidences of insecurity. Beginning with the Boko Haram insurgency in the North East; banditry and cattle rustling in the North West; ethnic and regional irredentism in the South East have all combined to give a gory picture of killings, bombings and destruction of lives and properties in the country. This situation has not only seriously aggravated internal and external migration, but the human trafficking networks and agents have exploited the vulnerability of those seeking for peace in perpetrating their heinous trade in human persons.

Clearly, the push factors highlighted above cannot be the only triggers for migration and human trafficking. In fact, in a materialistic society, peer pressure to succeed could also act as a powerful push factor. Other push factors include the craze for conspicuous consumption and other material gains, misplaced values, decline in socio-cultural values and greed are common not only among traffickers and victims but even among other social groups(Lipede,2007).

There are equally the pull triggers as factors that serve as attractive triggers for people to move to other countries or which pull the victims for trafficking to other parts of the world in search of opportunities and seemingly better life. These are:

1. The Demand and Supply of Labour: Labour as a factor of production is required in both developed and developing economies. Some of the purposes for which human trafficking strive is because of sexual exploitation which is the most common and forced labor. At some point in the developed world, there seemed to have been an increase in the demand for cheap labor and sex workers which was one of the major pull factors in the trade for women. In a study by Akinyemi et. al, (2020), which is a systematic review of drivers and interventions against sex work migration in Edo state, the researchers identified Edo state as a major hub for trafficking linked to international migration routes. In fact, the study discovered that poverty, unemployment, cultural pressures, and migration aspirations (Japa syndrome) drive women into trafficking networks disguised as migration opportunities. In Italy, the preference for non-Europeans in

the sex trade, especially in the demand for prostitutes from supposedly less AIDS prone areas like Nigeria and other African countries in the 1980s and 1990s increased in Central and Northern Italy (Lipede,2007), which is one of the main destination countries in Europe. This factor was greatly responsible for the massive trafficking of women from Edo state in Nigeria to Italy and other European countries. Many of the early arrivals in Italy, who returned home with messages of success eventually lured other young women who got attracted to the success stories to also move to Italy or Europe.

2. Movements of People across International Boundaries: The creation and imposition of artificial and arbitrary boundaries by the colonial powers separated hitherto culturally unified settlements across the borders. In spite of these separations, people around these boundaries has continued to engage in trans-border trade and movements across the international boundaries. Consequently, these factors while encouraging the maintenance of decades- old trade and economic and other relations between border communities in the West African sub-region, have also made it easier for traffickers to move across borders with their human cargo. Many traffickers are known to use ancient trading routes and transit camps to carry their victims either through the Mediterranean or red sea to Europe (Lipede, 2007). In this regard, a study on migration, border governance and trafficking networks examined the Nigeria-Niger border as a major trafficking corridor (Idris et al, 2024). The study emphasized how weak border surveillance and community disengagement facilitate trafficking operations. It further argues that migration routes toward North Africa and Europe create opportunities for traffickers to exploit migrants.
3. Better Economic Opportunities and Infrastructure in the Destination Countries: There is no disputing the fact that most of the developed countries are found in Europe and the USA, which are also the destination countries where trafficked victims eventually find their way. According to the global report on trafficking in persons, the major hotspots for traffickers in Europe are Italy, Austria, Germany, France, Belgium, Spain, Netherlands, Switzerland and the United Kingdom . In these countries, they find better economic prospects and efficient infrastructure such as electricity, water, good roads, better health and education facilities which attract people into these countries either in the form of human trafficking for sex or forced labor or even as brain drain which is very rampant now.
4. Absence of Legislation against Women Trafficking: In many of the transit and destination

countries, stiff penalties which could act as deterrent on traffickers are absent or completely nonexistent. However, this is fast changing in many of these countries, particularly with the promulgation of the Anti-slavery law in 2004 in Europe. In fact, the European Union mandated its member countries to review their domestic criminal legislations by the end of 2004, in order to prohibit trafficking in persons for both labor and sexual exploitation and this gave rise to the Anti-slavery law of 2004. Until 2004 therefore, the trade has remained a lucrative one without many legal obstacles (Lipede, 2007). Although, in the case of Nigeria, the anti-trafficking agency (NAPTIP) exists to implement and enforce the laws on trafficking, despite this policy progress, institutional weaknesses, limited resources, and low conviction rates undermine the effectiveness of the agency (Shuaibu, 2024). This position was articulated in a study on Institutional and Legal Responses in Nigeria conducted by Shuaibu. The study established that migration-related trafficking persists due to gaps in enforcement, public awareness and inter-agency coordination.

Similarly, in some European countries, prostitution is legalized. In the city of Rome, for example, prostitution is not only legal but taxed, bringing in funds for the government, (Lipede, 2007). In a number of European countries, such as Netherlands, Germany, Greece, Austria to mention a few, prostitution is a legal and regulated (www.wikipedia.com, accessed 21/9/2022). In such a scenario, many women are lured to move to Europe for sex trade.

Other equally important factors which serve as pull triggers include the involvement of corrupt elements in the immigration, customs, police and border patrol officers who act as both pull and push factors and conspire with the traffickers in transit and destination countries to perpetrate the evil trade.

5. The Plights of the Victims of Trafficking: Synthesis of the Nature, Trends and Consequences

In the section on conceptualization, this paper submitted that there are seven forms of trafficking in line with the listings made by the UN Trafficking Protocol. However, the most common types of human trafficking are forced labor; domestic servitude; child begging or labor; removal of organs and of course, the best known which is sexual exploitation, otherwise referred to as sex trade. The main economic sectors who benefits from the human trafficking include but are not limited to agriculture, manufacturing, domestic work, hospitality and the commercial sex industry.

Similarly, a synthesis of literature presented in the studies reviewed in

section four reveals that migration is a primary pathway into trafficking networks. Poverty, unemployment, economic hardship and the absence of basic infrastructure are the dominant drivers in migration and the ultimate trap of human trafficking in which young men and women get entrapped. Clearly, the irregular migration routes to Europe increase the vulnerability of victims of trafficking. There is a strong overlap between migration, smuggling and trafficking. Edo state in Nigeria and other border regions in Africa as indicated in the literature serve as major trafficking hubs for the heinous business. It is also understood that weak institutions, corruption among border personnel and across the borders, as well as absence of inter-agency collaboration undermine anti-trafficking efforts in Nigeria and across Africa.

Clearly, the this paper focuses on human trafficking in general, however, emphasis is on the trafficking in women or sex trade, which is the most documented. In fact, some human trafficking statistics and facts indicates that women and girls are disproportionately affected by human trafficking accounting for 71% of all victims (ILO, 2017). In effect, the international labor organization reported that 4.8 million people are trafficked for forced sexual exploitation, while 24.9 million people are victims of forced labor (ILO, 2017). Similarly, the largest share of labor trafficked adults are domestic workers who constitute 24% (ILO, 2017).

As earlier pointed out, commercial sex industry is the most lucrative with an estimated market value of $99 billion. Undoubtedly, countries across Asia, Africa, Europe, USA, South America and the Caribbean are considered as source, transit and destination of human trafficking. As indicated earlier, most of the European states are the destination countries. In Asia, countries such as Thailand and Cambodia serve as both source, transit and destination routes. Trafficking in human persons in Thailand is a booming industry and earns about $12 billion for the economy more than the country's drug trade (ILO). In 2019, about 974 victims were rescued, most of them from Myanmar (Burma). Victims of human trafficking in Thailand are trafficked through established routes, facilitated by the long, porous borders and the prevalence of corruption at the border posts. Cambodia is also famous as a source, transit and destination country with most of the victims involved in sexual exploitation. In Asia, 36% of the trafficked victims are children used for child labor while 64% are adults heavily exploited for sex, domestic and forced labor (UNODC, accessed on 19/09/2022). India is considered to be the topmost in the list of countries with highest number of victims of trafficking accounting for 14 million victims (UNODC).

Africa is also one of the worst hit in this heinous business. Several African countries are involved,

perhaps because of the underdevelopment of many African states. In fact, the severity of the malaise has clearly characterized the African situation as a tragedy of unimaginable proportions. While Niger and Mali are focal points into the Sahara desert, Libya has, for years been the main transit port for migrants seeking to access Europe by sea but since the death of Gaddafi, the country has had no effective national government with different warring factions battling for territorial control. This has made the environment conducive for the activities of human traffickers. In the process, hundreds of thousands of migrants in Libya are held by smugglers in dire conditions and many of them in forced labour (Adeniyi, 2019).

Mali is increasingly becoming notorious as a transit country for those who seek to access Europe by road and sea. Except, for the increased activities of the bandits and rebels across the Malian routes, no fewer than 76,778 migrants moved upward from Mali at the rate of 152 migrants a day in the bid to access Italy and Spain through Algeria and Libya (Adeniyi, 2019).

Nigeria is a well-known source, transit and destination country for trafficking in persons mostly to the Middle East in Saudi Arabia; other African countries and Europe; to places such as Italy, Spain, Germany etc. The famous Edo prostitution ring, which tragically exported young able bodied girls from Benin to Italy and other parts of Europe is still fresh in our memory.

6. Dehumanising the Human Person: Consequences of Human Trafficking

Human trafficking is a highly organized criminal network involving recruiters, agents, middlemen, transporters, security men, clergy men, hoteliers, juju priests who performed voodoo to hold victims hostage and the receivers at the destination points. In this network, huge investment is provided to generate the human cargo with possible outcome in the form of profits which accrue to the members of the network. In most cases, the victims are left to suffer with nothing to show for it. The trafficking network employ various routes to transport their human cargo. In fact, several routes exist in both Northern and Southern axis of Nigeria. In the north, human trafficking is believed to have started in the middle or late 1980s, when cripples and other disabled persons were trafficked by air from the Malam Aminu Kano international airport (MAKIA) to Mecca ostensibly to perform the pilgrimage but actually to be exploited as beggars. Over the years, the destitute, women, people of fraudulent characters are among the various types of people trafficked to Saudi Arabia (Lipede, 2007). Most of the victims who are trafficked from the northern part of Nigeria find destinations mostly in the Hausa speaking settlements of west and central African countries such as

Bangui, Douala etc; Saudi Arabia and the Middle-Eastern countries. Today, young artisans and other professionals find their way into Dubai, Oman etc to make a living, some through forced labor. Victims used sea and air, but in most cases utilize the land routes. Victims from the north are usually transported through Niger, Lake Chad and Cameroun to Europe by sea. In fact, these victims cross at different border crossings before using overland routes across the Sahara (through Niger) to North Africa, from Algeria, Libya or Morocco, they make hazardous journeys in small boats across the Mediterranean or Red sea, through to Spain, Portugal or Italy (Lipede, 2007). The Southern axis used the Lagos, Ogun or Calabar routes through some African countries such as the Cotonou, Togo, Accra, Bamako and Gabon by road and then move to Europe by air or they move to Morocco through the desert then to Europe by sea (Lipede, 2007).

Due to the clandestine nature of the illegal trade, traffickers deploy different methods in moving the human cargo to the destination countries. Victims are often smuggled in containers, vehicles or trains and even by foot. Victims are also moved into either transit or destination countries using donkeys and horses to avoid border patrol officials. Travel documents are either forged or stolen with false visas to ensure victims arrive destination countries at all cost.

Who are these victims? What is the character of the victims of trafficking? Human trafficking knows no bound, victims of human trafficking cut across all strata of society including university graduates and educated professionals desperate to migrate for better opportunities or well paid jobs. Among victims are secondary school students or drop outs; artisans; married and unmarried men and women, young girls and boys and even minors. Recruitment of victims by traffickers knows no distinction, because the ultimate objective is the benefits of the crime.

Victims of human trafficking either in Nigeria or other parts of the world suffer from traumatic abuses and violations of their dignity as humans. Human beings are God's precious creations, but human trafficking destroys that humanity because of the heinous crimes committed on the victims.

Olusegun Adeniyi provided a well-deserved attention to the deadly scourge of trafficking in persons in a book titled; "From Frying Pan to Fire". Adeniyi documented the risks involved in migration and the inhuman treatment of the victims by traffickers. He gives the story of his brother, Agboola who spent six years trying to desperately enter Europe without success. He laments on the plights of the victims who passed through Libya, thus:

After the 2011 political crisis in Libya, the plights of migrants became worse as a result of the

attendant instability. Arbitrary arrest and detention, harassment, bonded labor, periodic roundups, and detention became rampant with Nigerians being the most vulnerable in such situations (Adeniyi, 2019).

One of the worst form of indignity, victims of trafficking suffer is sexual exploitation in the form of rape. In fact, some of them suffer from gang rape. According to the International Organization for Migration (IOM) report, in 72 percent of human trafficking cases where the victims are women, the indignity is primarily sexual, with labor and other forms of exploitation accounting for the remaining 28 percent. In the cases of men, labor exploitation accounts for 85.7 percent of cases while sexual exploitation accounts for 6.8 percent of cases (as cited in Adeniyi, 2019). The report further revealed that women and unaccompanied girls of Nigerian origin are among the most at risk of being trafficked for sexual exploitation, though other nationals are also affected. There are reports indicating that women and teenage girls who get trafficked for domestic servitude are also subjected to incessant rapes by the heads of the families where they work and in some cases even the children molest these women. In fact, one of the Libyan returnees (among the first batch of 5,499 Nigerians rescued by the federal government under the auspices of the European Union), revealed how many of them sell their bodies for mere loaves of bread (Adeniyi, 2019)

In January, 2018, a Federal Government delegation led by the Minister of Foreign Affairs travelled to Libya on the directive of the President of Nigeria to facilitate the repatriation of Nigerian migrants trapped in Libya revealed the level of indignity suffered by the victims of the trafficking in persons. A presidential aide who was part of the delegation reported that there was a girl who had been sexually molested by the soldiers guarding the facility and was left to bleed after she had been injected with a drug to induce abortion (Adeniyi; 2019). The level and extent of man's inhumanity to man is heart-rending and heinous. The lady in question could be infected with a deadly disease which could endanger her life or even lead to death. Cases of boat capsizing or forceful drowning of victims are daily occurrences. On 24 May, 2017 a wooden boat capsized with more than 500 people off the coast of Lampedusa, Italy. In 2021, the UN reported that over 1,692 migrants were drowned in the sea as a result of desperate journeys to survive. In a repost monitored at the channels news on 24 September, 2022, 53 Syrians drowned off the coast of Syria, perhaps migrants or victims of trafficking moving out of the conflict ridden Syrian territory. The situation is not limited to mere drowning, but also there are cases of the lifeless bodies of the drowned victims seen floating in the seas. Victims who are trafficked through the land routes have reported cases of mysterious deaths or cases of human skeletons littered around the roads. There are

cases of dead migrants or victims who are left to decompose in the deserts.

Migrants who are trafficked through the land routes passing through Niger, Mali and Libya before getting to Europe undergo huge inhuman treatment in the hands of their transporters and agents. For instance, these desperate journeys take several months and in the process some victims secure jobs along the routes. Unfortunately, they suffer from forced labor with meager pay and even deaths are recorded as a result of deadly accidents in the work place or even enslavement in the work place detention centers. The extent of dehumanization is very unprecedented.

Another effect of the trafficking in persons, which the victims suffer from, is racism and discrimination either in the transit or destination countries. Many victims go through extreme discrimination and racism even in places like Libya, Algeria and Mauritania. Though, African countries both consider themselves as Afro-Arabs and indulge in the inhuman treatment of fellow Africans who are dark-skinned. For instance, Adeniyi reported that no matter how migrants gets to Libya (whether trafficked, sold or kidnapped along the way) they are usually arrested on arrival, detained and asked to pay a ransom in order to be released (2019; 19). In fact, while in detention, they are thoroughly beaten and handcuffed for committing no crime and made to work in farms under excruciating conditions without pay.

Other consequences of the trafficking on the victims also includes confinement and torture by their European and Arab tormentors; overcrowding in cells where men and adolescent boys are kept together, in spite of the health implications.

As a consequence of the debilitating conditions, victims of human trafficking are subjected to, could lead to emotional and psychological trauma for the victims and other health conditions. The following are identified as health characteristics of trafficked victim:

-Brutal conditions that result in physical breakdowns

-Emotional abuse and pelvic inflammatory disease

-Sexually transmitted diseases, HIV/AIDS etc

-Bruises, broken bones and other signs of untreated medical problems

-Critical illness including diabetes, cancer and heart disease

-Malnutrition, dehydration or poor personal hygiene

-Post traumatic stress, psychological disorders (as cited in Mbachu, 2015).

In the light of the terrible plight suffered by the victims of trafficking in persons which is for the purpose of money or sources of income for the traffickers, certainly, resources should be mobilized to reduce or eliminate this heinous scourge in the society.

7. Conclusions and Recommendations

One of the greatest tragedy of the current global order is the menace of human trafficking with its negative consequences on humanity. This tragedy must be attacked head on and concerted efforts are required to checkmate its spread and widespread destruction of human lives. Consequently, the root causes of human trafficking must be tackled. The current state of affairs in many African countries including Nigeria leave much to be desired. Underdevelopment, poverty, ignorance, absence of infrastructure still pervade our socio-political landscape. Therefore, the best approach towards tackling human trafficking is for the governments and leaders to make the development and provisions of welfare and employment opportunities to the people a priority. In fact, the Nigerian government should pursue vigorous implementation of the socio-economic rights contained in chapter 2 of the constitution of the Federal Republic of Nigeria (Shatsari, 2010), because the provisions of the chapter place beneficial requirements on governments or its agencies to avoid discrimination on the grounds of sex, place of origin or status; to manage the economy as to secure the maximum welfare, freedom and happiness of every citizens and to build the Nigerian state on the principles of social justice and democracy (Shatsari, 2010).

This, if pursued and implemented, could potentially reduce, if not eliminate the root causes of human trafficking in Nigeria. Human trafficking is a transnational business involving organized syndicates, as such, there is need for coordinated response to the menace. This response should involve co-operation among the ECOWAS, AU and the EU countries, because the source, transit and destination cut across these unions. The coordinated response should strive to tackle it in a multi-dimensional contexts such as job creation, migration management, security and border management (Adeniyi, 2019)

In a similar manner, the Nigerian government and NGOs should ensure greater co-operation and synergy across the border countries and in a collective manner, fight the organized crime. This synergy should involve information sharing; workshops; seminars, conferences and researches into the human trafficking trade.

Due to the clandestine nature of human trafficking, traffickers are not easily detected, arrested and prosecuted. According to the United States department of state, about 111 suspects were arrested in 2019. While 232 human trafficking suspects were arrested along the Nigeria-Niger border in 2020. However, arrests are not enough, these suspects should be summarily prosecuted and jailed for these crimes against the people.

The Nigerian government should plan for the future and plan well, because our population is growing exponentially and is also one of the youngest in Africa. The United Nations has projected that Nigeria's population could rise to 440 million

by 2050 (Adeniyi, 2019), and this poses a serious threat to the country's future survival as a nation.

The enactment of the NAPTIP ACT in 2003 and amended in 2005 as the trafficking in persons (prohibition) law enforcement and Administration (Amended) Act 2005, was a step in the right direction. In fact, as at February 2009, 56 traffickers had been convicted since the NAPTIP Act came into force in 2003 and 60 trafficking cases were still in court (as cited in Shatsari, 2010). However, NAPTIP should be strengthened with increased funding to perform its mandate of investigation; monitoring; public enlightenment; counseling and rehabilitation; prosecution and research into the subject of trafficking.

Establishment of care homes for victims is necessary to accommodate, rehabilitate and prepare them for reintegration into the society. There is need for enlightenment of parents to appreciate their role in child protection to reduce incidents of allowing children for internal or external trafficking. More of the NGOs and CBOs should get involved in increased awareness of the dangers of human trafficking and the rehabilitation of the victims of the deadly trade in humans.

It is significant to conclude that, human trafficking is a global threat to human survival, and all hands must be on deck to stamp it out of the society. Fundamentally, the magic wand in this struggle, like the late Nobel laureate, Norman Borlang said, "You can't build a peaceful world on empty stomach and human misery" that is the message for us all.

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UBUNTU AND OMOLUABI ETHICS IN AFRICAN GASTRONOMY: IMPLICATIONS FOR THE HOSPITALITY GUEST EXPERIENCE

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Abstract

This study examines the integration of Ubuntu and Omoluabi ethical philosophies within African gastronomy and their implications for hospitality guest experience. The study responds to the dominance of Western-oriented hospitality models by proposing a culturally grounded framework rooted in indigenous African ethical systems. Using a conceptual and integrative literature review approach, the study synthesised interdisciplinary scholarship from hospitality management, African philosophy, gastronomy, tourism, and service studies. Relevant peer-reviewed literature was analysed thematically to establish conceptual relationships among Ubuntu ethics, Omoluabi values, African gastronomy, service behaviour, and guest experience. The findings reveal that Ubuntu principles of empathy, communalism, relationality, and shared humanity, alongside Omoluabi values of integrity, respect, discipline, and moral responsibility, are strongly reflected in African gastronomic practices through communal dining, food-sharing traditions, storytelling, and culturally guided hospitality rituals. The study further found that these ethical philosophies positively influence service conduct, communal engagement, authenticity, emotional connection, guest satisfaction, and loyalty within hospitality settings. African gastronomy emerged as the mediating mechanism through which these indigenous ethical values are operationalised and experienced. Based on these findings, the study develops a conceptual framework that positions Ubuntu and Omoluabi as foundational ethical drivers of hospitality service design, while African gastronomy functions as the mediating platform shaping guest experience outcomes. The study recommends integrating indigenous ethical philosophies into staff training, service protocols, branding, and experiential management to promote culturally authentic and ethically grounded hospitality experiences.

***Keywords*:** African gastronomy, guest experience, hospitality ethics, Omoluabi, Ubuntu.

Introduction

African gastronomy represents more than a culinary tradition; it embodies cultural identity, ethical frameworks, and relational practices that profoundly shape hospitality experiences. Across the continent, foodways are intertwined with social norms, moral values, and community-centered philosophies, providing fertile ground for investigating how indigenous knowledge informs

service delivery and guest satisfaction (Chauke, Abrahams, & Baum, 2025; Banerjee & Khan, 2024). Yet, much of hospitality scholarship remains grounded in Western paradigms, often overlooking African epistemologies that prioritise communalism, ethical conduct, and relational engagement.

Two distinct African philosophical frameworks, Ubuntu and Omoluabi, offer important perspectives on hospitality ethics and guest experience. Ubuntu, a Southern African concept, emphasises interconnectedness, empathy, and shared humanity, situating hospitality as a relational practice that fosters belonging and social cohesion (Jennings, 2025; Gathogo, 2025). Omoluabi, a Yoruba ethical framework, underscores integrity, respect, responsibility, and moral excellence, guiding not only individual conduct but also collective social interactions (Oladejo & Dastile, 2025; Motadegbe & Ibiyemi, 2025; Onamusi, 2023). Both philosophies highlight how ethical values can shape service behaviours, enhance guest satisfaction, and create culturally authentic dining experiences, positioning African gastronomy as a vehicle for both experiential and moral engagement in hospitality. Despite growing recognition of values-driven hospitality, empirical and conceptual studies integrating African ethics into gastronomy remain limited (Sipondo, 2025; Oelofsen, Majee, Mgijima, & Monson, 2024). Furthermore, the literature has yet to fully articulate how Ubuntu and Omoluabi principles can co-create meaningful guest experiences through commensality, service ethics, and cultural authenticity. To address this gap, the current study develops a conceptual framework linking Ubuntu and Omoluabi ethics to African gastronomy and guest experience, emphasising the possibility of indigenous philosophies to inform service design, managerial practices, and policy in African hospitality contexts.

Statement of the Problem

Most hospitality research focuses on Western service models and often neglects African indigenous ethical frameworks that influence guest experiences. African gastronomy reflects deeply rooted cultural values and social practices, yet the role of philosophies such as Ubuntu, emphasising communal connectedness, and Omoluabi, emphasising integrity and moral character, has received little attention in hospitality studies (Jennings, 2025; Oladejo & Dastile, 2025; Banerjee & Khan, 2024). Current literature provides limited discussion on how these ethical systems affect service behaviors, shared dining, and guest satisfaction (Sipondo, 2025; Oelofsen, Majee, Mgijima, & Monson, 2024). This gap limits hospitality managers in designing culturally grounded, values-based gastronomic experiences and leaves a theoretical and practical void.

Aim and Objectives

This study aims to construct a conceptual framework that positions Ubuntu and Omoluabi ethical principles at the core of African gastronomy and hospitality guest experiences.

The objectives are to:

1. Investigate the reflection of Ubuntu and Omoluabi ethics

within African gastronomic practices in hospitality contexts.

2. Examine the influence of these ethical principles on service conduct, communal dining, and guest satisfaction.
3. Develop a conceptual framework integrating indigenous African ethical philosophies into hospitality service design and experiential management.

Research Questions

Guided by the study's aim and objectives, the following research questions examine how Ubuntu and Omoluabi ethics shape African gastronomic practices, service behaviors, and hospitality guest experiences:

1. How are Ubuntu and Omoluabi ethical principles reflected in African gastronomic practices within hospitality settings?
2. In what ways do Ubuntu and Omoluabi principles affect service behavior, communal dining, and guest satisfaction?
3. How can Ubuntu and Omoluabi philosophies be integrated into a conceptual framework for hospitality service design and guest experience management?

Scope of the Study

This study focuses on the application of Ubuntu and Omoluabi ethical principles within African gastronomy and their implications for hospitality guest experiences. The conceptual exploration is limited to ethical frameworks, cultural values, and communal dining practices that influence service behaviour and guest satisfaction in hospitality contexts. While African gastronomy is practiced across diverse countries and communities, the study emphasises principles that are broadly representative of indigenous African ethical and moral philosophies. The scope is confined to theoretical development and framework construction, without empirical data collection, providing a foundation for future research to test and operationalise the proposed model within hotels, restaurants, and cultural dining experiences.

Significance of the Study

This study contributes to hospitality scholarship by highlighting African indigenous ethical philosophies, namely, Ubuntu and Omoluabi, as foundational to service delivery and guest experience. By developing a conceptual framework that integrates these principles into African gastronomy, the study examines how cultural and ethical values influence communal dining, service practices, and guest satisfaction. The study advances theory by extending experiential consumption and service-dominant logic through the perspective of African philosophies. From a practical standpoint, it provides guidance for hospitality managers, educators, and policymakers on creating culturally rooted, values-driven gastronomic experiences. Additionally, the study promotes the preservation and application of African ethical and culinary traditions within contemporary hospitality practice.

Literature Review

Ubuntu

Ubuntu is a Southern African philosophical framework that emphasises

communalism, relational interdependence, empathy, and the inherent value of human connectedness (Jennings, 2025; Gathogo, 2025). Within hospitality contexts, Ubuntu shapes service behaviors by promoting relational engagement, attentiveness to guests, and the creation of environments that strengthen social bonds (Banerjee & Khan, 2024; Hughes, 2024). Service delivery underpinned by Ubuntu extends beyond transactional interactions to foster collective responsibility among staff and ethically guided relational practices. Despite its prominence in organisational and tourism studies, Ubuntu has received limited attention in the context of African gastronomy, particularly regarding how its principles are operationalised in service encounters and shared dining experiences. This presents a gap in understanding how communal and ethical practices influence hospitality guest satisfaction, which this study seeks to address by situating Ubuntu as a guiding framework for ethical and relational service delivery.

Omoluabi

Omoluabi, a Yoruba ethical system, embodies integrity, moral excellence, respect, honesty, and responsibility (Oladejo & Dastile, 2025; Motadegbe & Ibiyemi, 2025; Onamusi, 2023). It directs both individual conduct and collective social interaction, offering a moral compass that informs ethical decision-making and relational trust. In hospitality, Omoluabi provides a framework for shaping staff behavior, interactions with guests, and the ethical management of communal dining experiences (Ipadeola, 2024; Nonyelu, 2026). While its significance in leadership, governance, and organisational ethics has been explored (Adegbami, 2025; OjoLawal & Babatunde, 2025), the application of Omoluabi within hospitality service design and gastronomy remains underdeveloped. This study addresses this gap by conceptualizing Omoluabi as a core determinant of ethical service behavior and culturally authentic hospitality practices.

African Gastronomy

African gastronomy encompasses the culinary traditions, foodways, and communal dining practices that reflect the continent's cultural and ethical heritage (Chauke, Abrahams, & Baum, 2025; Banerjee & Khan, 2024). Beyond the preparation and consumption of food, African gastronomy includes the rituals, symbolic meanings, and social norms associated with meals, which influence interpersonal interactions and relational engagement. In hospitality, gastronomy serves as a medium for cultural transmission, enabling guests to engage with local heritage and communal practices. Although African gastronomy has been acknowledged as a cultural resource in tourism and hospitality studies, research has rarely examined its integration with indigenous ethical frameworks such as Ubuntu and Omoluabi. This leaves a conceptual gap in understanding how gastronomy can mediate ethical principles and shape guest experiences in culturally authentic ways.

Guest Experience

Guest experience refers to the comprehensive set of cognitive, emotional, sensory, and social

interactions that a guest encounters in a hospitality environment (Sipondo, 2025). Both operational service quality and cultural and ethical frameworks influence satisfaction, emotional engagement, perceived authenticity, and loyalty. In African hospitality, guest experience can be shaped by communal dining practices and culturally guided service behaviors informed by Ubuntu and Omoluabi (Jennings, 2025; Mdletshe, 2025). Current literature remains largely Western-centric, emphasising service quality metrics while neglecting the ethical and cultural dimensions that frame guest experiences. By positioning guest experience as the outcome of culturally and ethically grounded service behaviors mediated through African gastronomy. This study addresses the gap in understanding how indigenous philosophies shape hospitality encounters. The literature reviewed demonstrates the theoretical relevance of Ubuntu, Omoluabi, African gastronomy, and guest experiences while simultaneously revealing critical gaps. Specifically, the operationalisation of Ubuntu and Omoluabi within hospitality services is underexplored, the integration of these ethical frameworks with African gastronomy has not been systematically examined, and the influence of these cultural and ethical principles on guest experience remains largely untested. This study responds to these gaps by developing a conceptual framework that links Ubuntu and Omoluabi ethics with African gastronomy and hospitality guest experience, providing a foundation for theoretical development and future empirical research.

Gaps in the Literature

Although existing literature highlights the philosophical

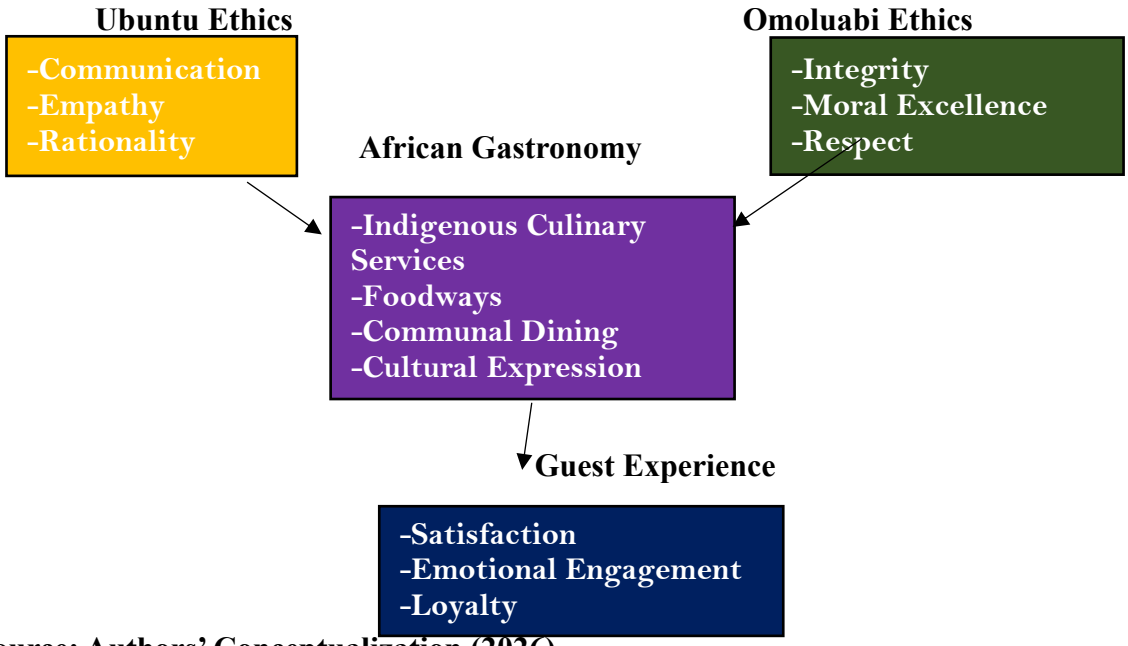
and cultural significance of Ubuntu and Omoluabi, research on their application in hospitality contexts remains limited. Ubuntu has been extensively examined in organisational leadership, education, and tourism, where it is shown to foster relational engagement, ethical decision-making, and communal responsibility (Hughes, 2024; Jennings, 2025; Gathogo, 2025). However, few studies have explored how Ubuntu principles are operationalised in African gastronomy and hospitality service, particularly in shaping communal dining experiences and guest satisfaction. Similarly, Omoluabi has been discussed in the context of leadership, governance, and organisational ethics, emphasising integrity, respect, and moral responsibility (Oladejo & Dastile, 2025; Motadegbe & Ibiyemi, 2025; Onamusi, 2023; Ipadeola, 2024). Its role in influencing hospitality service behaviours, staff-guest interactions, and the orchestration of culturally authentic gastronomic experiences has received little attention.

African gastronomy, while recognised as a critical medium for cultural expression and tourism, is often treated descriptively in the literature (Chauke, Abrahams, & Baum, 2025; Banerjee & Khan, 2024). Many studies do not systematically link foodways to ethical and cultural frameworks such as Ubuntu and Omoluabi. The mechanisms through which gastronomy mediates ethical principles and contributes to guest experience, satisfaction, and loyalty remain largely unexplored. Furthermore, research on guest experience in

hospitality has focused predominantly on operational quality and Western-centric service metrics, overlooking the influence of indigenous African ethical and cultural frameworks (Sipondo, 2025; Mdletshe, 2025). Consequently, there is a clear theoretical and practical gap in understanding how Ubuntu and Omoluabi, when integrated with African gastronomy, shape hospitality guest experiences. The absence of a conceptual framework linking these indigenous ethical philosophies to service delivery and experiential outcomes in hospitality limits both scholarly discourse and managerial practice. This study seeks to fill this gap by developing a conceptual model that situates African ethical systems at the core of gastronomic hospitality and guest experience, providing a foundation for future empirical research and culturally grounded service management.

Conceptual Framework

Figure 2.1: Conceptual Framework Linking Ubuntu Ethics and Omoluabi Ethics to African Gastronomy



Source: Authors' Conceptualization (2026)

The conceptual framework for this study positions Ubuntu and Omoluabi ethical philosophies as foundational drivers of hospitality service orientation and guest experience, with African gastronomy operating as the mediating conduit through which these values are enacted. Ubuntu, rooted in African humanism, emphasises relationality, empathy, communal responsibility, and shared humanity, shaping service interactions that prioritise care, inclusiveness, and social connectedness (Hughes, 2024; Jennings, 2025; Gathogo, 2025). Within hospitality settings, Ubuntu guides how service encounters are structured, encouraging staff to engage guests beyond functional transactions and to foster a sense of belonging through attentive and relational service practices. Omoluabi, grounded in Yoruba moral philosophy, complements this relational orientation by foregrounding integrity, moral excellence, respect, and ethical

conduct (Onamusi, 2023; Ipadeola, 2024; Oladejo & Dastile, 2025; Motadegbe & Ibiyemi, 2025). In hospitality contexts, Omoluabi guides service behaviour by shaping ethical standards in guest interactions, communal dining arrangements, and professional conduct. It reinforces trust, dignity, and accountability in service delivery, ensuring that hospitality practices reflect culturally embedded moral values rather than solely operational efficiency.

African gastronomy mediates the influence of these ethical philosophies by translating abstract values into tangible hospitality practices. It encompasses culinary traditions, food preparation techniques, modes of presentation, and communal consumption rituals that reflect shared cultural meanings (Banerjee & Khan, 2024; Chauke, Abrahams, & Baum, 2025). Through gastronomic practices, Ubuntu and Omoluabi are embodied in commensality, shared meals, storytelling, and culturally respectful service rituals. Gastronomy thus becomes a cultural interface through which ethical values are experienced, rather than merely observed, positioning foodways as central to hospitality experience formation. Guest experience emerges as the outcome of these interrelated ethical and gastronomic processes, encompassing emotional engagement, perceived authenticity, satisfaction, and relational attachment (Sipondo, 2025; Mdletshe, 2025). The framework suggests that when hospitality services are grounded in Ubuntu and Omoluabi and enacted through African gastronomy, guests are more likely to experience meaningful social connection and cultural resonance. This perspective extends dominant hospitality experience models, which have largely emphasised service quality metrics and Western experiential paradigms, by incorporating indigenous ethical and cultural determinants.

The framework further clarifies that African ethical philosophies are not peripheral cultural references but central mechanisms through which hospitality value is created. By situating African gastronomy as the mediating pathway, it demonstrates how ethical principles are operationalized in everyday service encounters, shaping relational engagement and experiential outcomes. This integration connects indigenous African philosophical traditions with contemporary hospitality theory, offering a culturally grounded explanatory model that advances scholarly understanding and provides a foundation for future empirical testing within hospitality and tourism research.

Methodology

This study adopts a conceptual and integrative literature-based research design appropriate for theory development within hospitality and tourism scholarship. Given the study's objective of advancing understanding of how Ubuntu and Omoluabi ethics influence the guest experience in hospitality through African gastronomy, a non-empirical approach is employed to synthesise, reinterpret, and extend existing knowledge. This approach is consistent with Q1 journal expectations for conceptual advancement, particularly in contexts where indigenous philosophies and culturally embedded

constructs remain under-theorised in mainstream hospitality literature. The study draws on peer-reviewed journal articles, scholarly books, edited volumes, and authoritative conceptual works addressing Ubuntu philosophy, Omoluabi ethics, African gastronomy, hospitality service, and guest experience. The literature was sourced from reputable academic databases, including Scopus-indexed journals, Web of Science, SSRN, and leading academic publishers. Selection criteria emphasised conceptual relevance, theoretical depth, and contextual alignment with African ethics, hospitality, and gastronomy. Priority was given to recent publications while also incorporating foundational works necessary for philosophical grounding.

Data analysis followed an interpretive and thematic synthesis approach. The selected literature was critically reviewed to identify dominant conceptual positions, recurring themes, and theoretical assumptions relating to ethical philosophy, foodways, commensality, and hospitality experience. Ubuntu and Omoluabi were examined as ethical constructs, African gastronomy as a cultural and mediating practice, and guest experience as an experiential outcome. Through iterative reading and comparison, conceptual linkages were established, areas of convergence were identified, and omissions within existing hospitality frameworks were systematically highlighted. The analytical process emphasised logical integration rather than aggregation of findings. Concepts were refined through comparative interpretation, allowing the study to position African gastronomy as the mechanism through which ethical philosophies are translated into hospitality practice. This synthesis informed the development of the conceptual framework, which explains relational pathways between ethics, gastronomy, and guest experience. The framework was refined through continuous alignment with established hospitality theories while remaining grounded in indigenous African philosophical traditions.

To ensure rigor and credibility, the study adhered to principles of transparency, coherence, and theoretical consistency. Arguments were grounded in established scholarship, and interpretations were continuously cross-validated across multiple sources. Rather than proposing causal claims, the study focuses on conceptual clarity and explanatory strength, providing a structured foundation for future empirical research. This methodological approach enables the study to contribute meaningfully to hospitality and tourism literature by advancing a culturally grounded conceptual model. It supports theory development in non-Western contexts and offers a robust platform for subsequent quantitative, qualitative, or mixed-method studies seeking to test the proposed relationships empirically within hospitality settings.

Findings and Discussion

Findings

Research Question One

How are Ubuntu and Omoluabi ethical principles reflected in African

gastronomic practices within hospitality settings?

The findings show that Ubuntu and Omoluabi are deeply reflected in African gastronomic practices through communal dining, hospitality rituals, ethical conduct, and culturally guided service interactions. Ubuntu promotes empathy, interconnectedness, and shared humanity, which are evident in African hospitality settings where meals are treated as collective social experiences rather than mere consumption activities. Jennings (2025) and Gathogo (2025) explain that Ubuntu encourages relational engagement, collective responsibility, and social care. These values are expressed through shared meals, guest inclusion, storytelling, and practices that strengthen social bonds. Omoluabi is reflected through integrity, respect, discipline, and moral responsibility in hospitality interactions. Oladejo and Dastile (2025) describe Omoluabi as a framework of ethical excellence and responsible behaviour, while Onamusi (2023) links it to respectful and disciplined social engagement. Within hospitality settings, these principles shape staff behaviour, professionalism, and culturally respectful dining environments. Okech and Timothy (2023) further note that African culinary traditions are strongly connected to communal values and cultural identity. The findings therefore suggest that African gastronomy serves as a medium through which Ubuntu and Omoluabi values are practiced and experienced.

Research Question Two

In what ways do Ubuntu and Omoluabi principles affect service behavior, communal dining, and guest satisfaction?

The findings indicate that Ubuntu and Omoluabi positively influence service behaviour, communal dining, and guest satisfaction by encouraging empathy, moral responsibility, and relational engagement. Ubuntu shapes hospitality interactions through attentiveness, inclusiveness, and emotional connection between service providers and guests. Hughes (2024) argues that Ubuntu strengthens caring relationships, while Banerjee and Khan (2024) observe that Ubuntu-based hospitality promotes socially meaningful tourism experiences. These qualities help guests feel welcomed, valued, and emotionally connected. Omoluabi also improves service quality by promoting honesty, accountability, integrity, and respectful conduct. Motadegbe and Ibiyemi (2025) associate Omoluabi with moral discipline and ethical responsibility, while Ipadeola (2024) links it to value-driven behaviour and responsible leadership. These principles strengthen professionalism and trust within hospitality settings. The findings further reveal that communal dining practices inspired by Ubuntu and Omoluabi enhance authenticity, cultural participation, and emotional engagement. Sipondo (2025) notes that ethical and culturally grounded interactions improve hospitality experiences, while Mdletshe (2025) argues that indigenous practices strengthen authenticity and guest connection. As a result, guests experience greater satisfaction and loyalty because the encounters extend beyond transactional service.

Research Question Three

How can Ubuntu and Omoluabi philosophies be integrated into a conceptual framework for hospitality service design and guest experience management?

The findings show that Ubuntu and Omoluabi can be integrated into hospitality service design through ethical operations, culturally sensitive service delivery, and gastronomic experience management. The conceptual framework developed in this study positions Ubuntu and Omoluabi as the ethical foundations of hospitality practice, while African gastronomy serves as the medium through which these values are expressed. Ubuntu contributes empathy, communal care, inclusiveness, and social connectedness to hospitality service delivery. Jennings (2025) and Hughes (2024) emphasise that Ubuntu supports relational and people-centered hospitality environments. Omoluabi complements this by promoting integrity, accountability, discipline, and respect in guest interactions (Oladejo & Dastile, 2025; Onamusi, 2023). The findings further show that African gastronomy operationalises these ethical values through indigenous culinary traditions, communal food-sharing, storytelling, and culturally respectful dining practices. Banerjee and Khan (2024) argue that indigenous African values enhance authenticity in hospitality, while Nomishan, Oloidi, and Aliyu (2024) identify gastronomy as a major driver of heritage tourism and guest engagement. The framework therefore demonstrates that integrating Ubuntu and Omoluabi into hospitality management can improve guest satisfaction, authenticity, emotional engagement, and loyalty. The study recommends incorporating these indigenous ethical philosophies into staff training, service protocols, branding, and cultural hospitality programming to create more culturally grounded and meaningful guest experiences.

Discussion

This study derives its findings from an integrative synthesis of scholarship on African ethical philosophies, gastronomy, and hospitality experience. The analysis indicates that Ubuntu and Omoluabi ethical principles are intrinsically embedded in African gastronomic practices through communal eating, shared responsibility, moral conduct, and culturally grounded service rituals. Across African contexts, foodways operate not only as systems of sustenance but also as moral and social practices that express collective identity and ethical obligation. Culinary traditions across the continent emphasise sharing, reciprocity, hospitality to guests, and respect for social hierarchies, values that closely correspond with Ubuntu's emphasis on shared humanity and Omoluabi's focus on moral character and integrity (Okech & Timothy, 2023; Jennings, 2025; Oladejo & Dastile, 2025). Hospitality settings reflect these values through dining arrangements that promote inclusiveness and reinforce social bonds.

The synthesis further indicates that Ubuntu and Omoluabi ethics exert a meaningful influence on service behaviour, communal dining, and guest satisfaction. Ubuntu shapes hospitality encounters by encouraging empathy, attentiveness, and relational engagement between service providers and guests,

creating environments in which guests experience recognition and belonging rather than purely transactional service (Hughes, 2024; Gathogo, 2025). Omoluabi ethics strengthen this relational orientation by guiding conduct through principles of respect, accountability, and moral discipline, influencing how hospitality personnel interact with guests and manage shared dining spaces with cultural sensitivity (Onamusi, 2023; Motadegbe & Ibiyemi, 2025). When these ethical orientations are enacted through gastronomy, they influence not only culinary preparation and presentation, but also the social processes of sharing food, narrating its cultural significance, and engaging guests in meaningful dining experiences.

The findings also highlight how African gastronomy serves as a vehicle for translating ethical philosophies into experiential value within hospitality contexts. Research on heritage tourism and gastronomic branding demonstrates that African cuisines are embedded with symbolic meanings related to identity, morality, and belonging, which enhance experiential depth when incorporated into hospitality offerings (Nomishan, Oloidi, & Aliyu, 2024; Banerjee & Khan, 2024). At the same time, global media representations frequently marginalise these ethical and cultural dimensions, positioning African food within narrow ethnic frames and limiting its recognition as a sophisticated gastronomic system (Fofie, 2025; Lee Ferrand, 2025). This disparity reveals a gap between indigeneous meanings attached to African foodways and their representation within global hospitality and tourism narratives. The literature further reveals tensions between dominant discourses on culinary innovation and the lived realities of African gastronomic practice. While innovation centred frameworks dominate gastro tourism research, African culinary traditions often prioritize ethical continuity, communal meaning, and moral symbolism, dimensions that are insufficiently addressed in prevailing models (Fisher & Du Rand, 2023). Studies on gastrodiplomacy suggest that African cuisines possess considerable potential to communicate cultural and ethical values internationally, yet this potential remains underutilised within hospitality service design (Erbay & ATEŞ, 2023). These observations point to the need for conceptual approaches that recognize ethics as integral to gastronomic value creation.

In response to these patterns, the findings indicate that Ubuntu and Omoluabi philosophies can be systematically embedded into hospitality service design by aligning gastronomic practices, service protocols, and guest engagement strategies with principles of communal care, moral responsibility, and cultural respect. Scholarship on digital branding and local gastronomic entrepreneurship further suggest that when hospitality experiences are communicated through value oriented narratives rather than purely commercial messaging, they enhance perceptions of authenticity and strengthen guest connection (Ndekwa & Mng'ong'ose, 2024). This supports the development of a conceptual framework that integrates African ethical philosophies into both operational practice and experiential communication. The findings demonstrate that Ubuntu

and Omoluabi ethics function as active determinants of gastronomic practice and guest experience in African hospitality contexts rather than abstract philosophical ideals. By positioning African gastronomy as the mediating mechanism, the study articulates how ethical philosophies shape service behaviour, communal dining, and guest satisfaction. The resulting conceptual framework responds to gaps in hospitality scholarship by embedding indigeneous African ethics into service design and guest experience management, offering a culturally grounded model that extends existing hospitality theory and provides a platform for future empirical investigation.

Conclusion

This study advances hospitality scholarship by demonstrating the centrality of African ethical philosophies in shaping service delivery and guest experience. By integrating Ubuntu and Omoluabi within the context of African gastronomy, it illustrates how indigenous moral systems inform relational engagement, communal dining practices, and culturally authentic hospitality services. The proposed conceptual framework positions ethics and culture as active drivers of guest experience, offering an alternative to Western-centric models that emphasize operational efficiency while neglecting moral and cultural dimensions. African gastronomy functions as the mechanism through which ethical principles are translated into practice within hospitality settings. Ubuntu's focus on relationality and collective humanity, together with Omoluabi's emphasis on integrity, responsibility, and moral excellence, establishes a clear link between philosophical values and observable service behaviours, culinary practices, and experiential outcomes. This perspective reconceptualizes hospitality as a practice deeply embedded in cultural and ethical values, rather than merely operational efficiency.

The study further enriches theoretical discourse in hospitality by introducing constructs such as communal care, moral accountability, and culturally informed engagement into service design and guest experience research. It also provides a foundation for extending experiential consumption theory and service-dominant logic into non-Western contexts, highlighting the influence of indigenous value systems on service perception, satisfaction, and loyalty. Conceptually, the framework emphasizes the ability for hospitality operations and service design to be guided by ethical and philosophical principles, resulting in experiences that are morally coherent, culturally grounded, and socially meaningful. It offers a structured basis for empirical testing and cross-cultural application, thereby strengthening theoretical development and informing management practice in global hospitality research.

Areas of Future Studies

Although this study establishes a conceptual integration of Ubuntu, Omoluabi ethics, African gastronomy, and guest experience in hospitality, several directions remain for future investigation. Empirical testing of the proposed framework is essential to examine how these ethical principles are enacted in diverse hospitality contexts

and to quantify their effects on guest satisfaction, loyalty, and perceptions of authenticity. Quantitative research could assess the relative influence of Ubuntu and Omoluabi on service behaviors, communal dining practices, and experiential outcomes, while qualitative approaches could provide rich, contextualized accounts of staff and guest interactions within culturally grounded hospitality settings.

Further studies could explore the mediating role of African gastronomy in translating indigenous ethical frameworks into tangible guest experiences across different cultural and regional contexts. Comparative research could highlight variations in culinary traditions, commensal practices, and service norms across African countries, offering insights into region-specific applications of Ubuntu and Omoluabi in hospitality. Interdisciplinary investigations that integrate hospitality management, ethics, and cultural studies could examine how these philosophies inform emerging hospitality trends, including sustainable tourism, gastrodiplomacy, and digitally mediated culinary experiences. Additionally, future research could focus on the practical implementation of African ethical philosophies in staff training, service protocols, and brand positioning, evaluating how culturally embedded operational strategies impact both employee engagement and guest perceptions. Such studies would strengthen understanding of how indigenous value systems can inform hospitality practice globally while preserving cultural integrity and ethical coherence.

Recommendations

Objective One

To investigate the reflection of Ubuntu and Omoluabi ethics within African gastronomic practices in hospitality contexts.

The study recommends that hospitality organizations preserve and intentionally promote African gastronomic practices that reflect Ubuntu and Omoluabi values. Hotels, restaurants, and tourism establishments should incorporate communal dining traditions, indigenous food-sharing practices, storytelling, and culturally respectful hospitality rituals into their service offerings. These practices reflect Ubuntu's emphasis on shared humanity, empathy, and communal connection, as well as Omoluabi's focus on integrity, respect, and moral responsibility. Hospitality managers should also collaborate with local communities and cultural custodians to preserve indigenous culinary traditions and ensure that African ethical values remain visible within contemporary hospitality experiences.

Objective Two

To examine the influence of these ethical principles on service conduct, communal dining, and guest satisfaction.

Based on the findings, hospitality organizations should integrate Ubuntu and Omoluabi principles into staff training, operational procedures, and customer service standards. Training programmes should emphasize empathy, attentiveness, inclusiveness, honesty, discipline, and respectful guest engagement. Ubuntu-driven service

delivery can encourage emotionally supportive and relational interactions with guests, while Omoluabi ethics can strengthen professionalism, accountability, and ethical conduct among hospitality personnel. In addition, hospitality operators should design communal dining experiences that encourage social interaction, cultural participation, and shared experiences among guests. These practices can improve guest satisfaction, emotional engagement, authenticity, and loyalty by creating experiences that extend beyond transactional service encounters.

Objective Three

To develop a conceptual framework integrating indigenous African ethical philosophies into hospitality service design and experiential management.

The study recommends that hospitality organisations, educators, and policymakers adopt the conceptual framework developed in this research as a culturally grounded model for hospitality service design and guest experience management. Hospitality businesses should align their branding, experiential marketing, service protocols, and gastronomic offerings with Ubuntu and Omoluabi ethical values to create culturally authentic and ethically coherent hospitality experiences. The framework should also inform hospitality curriculum development, professional training, and policy formulation within tourism and hospitality sectors. Furthermore, future empirical studies should test and refine the framework across different hospitality settings to strengthen its practical application and contribution to hospitality theory and management practice.

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THE MODERATING EFFECT OF TAX PLANNING ON THE RELATIONSHIP BETWEEN DIVIDEND POLICY AND FIRM VALUE OF LISTED CONSUMER GOODS IN NIGERIA

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Abstract

The study examines tax planning, dividend policy and firm value of listed consumer goods firms in Nigeria. The research design used in the study was ex-post factor and the study covers a period of ten (10) years, from 2014 to 2024. The population of the study consists of 20 consumer goods firms listed on the floor of the NSE. A total of 10 consumer goods firms were selected based on the filter sampling technique. Only secondary source of data was employed and the technique utilized for data analysis is multiple linear regression analysis. The studyreveals that the predictor variable, dividend payout ratio (DPO), which was used as a proxy for independent variable, tax planning proxied by effective tax rate (ETR) which was used as moderating variable and firm value proxied by tobin q have significant impact on the explained variable. The study also reveals that tax planning as moderating variable has significant impact on the relationship between dividend policy and firm value of listed consumer goods firms in Nigeria. The study recommended that, the management of listed Nigerian goods should employ the services of tax experts in order to improve the firm value of listed Nigeria consumer goods; the services of tax experts are needed to engage in legal tax planning such transfer pricing or structure intra-company debt in order to reduce the net tax payment. By doing so, the net income after tax will increase which in turn will increase firm value.

***Keywords*:** dividend, firm value, effective tax rate, DPO, Nigeria

1.Introduction

The relationship between dividend policy and firm value remains one of the most debated issues in corporate finance. Despite extensive empirical and theoretical contributions, there is still no universal consensus on whether dividend decisions significantly influence firm value or are merely residual outcomes of investment and financing decisions. Recent empirical studies continue to reflect this lack of consensus, reinforcing the argument that dividend policy remains an open question (Njoku & Lee, 2024; Umoru et al., 2025; Odufisan et al., 2025; Okoh et al., 2025; Lawal & Kareem, 2024; Ezeocha, 2024). Overall, the reviewed literature indicates that while some studies provide strong support for dividend relevance, others

uphold the irrelevance hypothesis, thereby sustaining the dividend puzzle in corporate finance.

Some theories, such as M and M theory (1961), have been proposed to explain the effects of business dividend policy and question weather or not it affects firm value. For example, Amidu (2007) revealed that a business's dividend policy impacts its profitability measurements and that managers should spend sufficient time establishing a dividend policy that would improve firm performance adequately and hence firm value for shareholders. The analysis, nevertheless, overlooked company worth. The data revealed a significant link between ROA, ROE, increased sales and earnings, and the firm's dividend policy. As a result, several of these researchers focused on the effects of a firm's dividend payment policy on earnings rather than its value (Soufiene, Khoule&Muhammed, 2016).

Similarly, during the last few decades, dividend policy has piqued the interest of financial economists and has been the subject of much theoretical and empirical research (Yahaya& Ghazal, 2016). However, the debate started with the M and M (1961) hypothesis, which divides investors into dividend clients. Dividends, according to this idea, are unimportant when making financial decisions. It claims that in a perfect capital market with no defects like taxes, transaction costs, asymmetric information, or agency costs, a company's dividend policy has no impact on the market value of its shares. As a result, financial managers can not change the value of their companies by modifying their dividend policy (Murekefu&Ouma, 2012). In the same vein, several empirical studies on the impact of tax planning (using effective tax rate as proxy) on company earnings and value exist(Murekefu & Ouma, 2012; Philip, 2003; Ayers et al., 2006; Wilson, 2009; Minnick & Noga, 2009; Noor, 2010; Md Noor et al., 2010). On the other hand, dividend relevance theory posits that a company's dividend policy directly affects its share price and firm value. None of these studies has considered the moderating effect of tax planning on the relationship between firm value and dividend policy.

Whereas, a moderating variables may be categorical or continuous, and they are only used in quantitative analysis, not qualitative analysis, their use is beneficial since they aid in the explanation of the relationships between the independent and dependent variables (Hanlon &Heitzman, 2010). Moderating variables, also known as simple moderators, offer additional detail about the relationship between two variables in quantitative analysis by describing what factors can make the relationship better, or weaker (Sabli&Md Noor, 2012).
Dividend policy affects firm value through signaling, investor preferences, and cash flow distribution. However, tax planning modifies this relationship by influencing investors' after-tax returns. Thus, the impact of dividend policy on firm value depends on the firm's tax strategy.

Irrespective of the importance attached to issues of taxation and tax planning, it has rested in the domain of theoretical expositions in most developing countries.

Thus, there are considerable studies on the effect of tax planning on firm value in Nigeria, none of the studies captured the moderating role of tax planning on other variables (Yahya & Ghazali, 2016; Abdul & Muhibudeen, 2015; Enekwe et al., 2015; Rudianto, 2015; Kajola et al., 2015; Dogan & Topol, 2014; Oseigbu et al., 2014; Velnampy et al., 2014; Gatsi et al., 2013; Beigi et al., 2013).

Therefore, no studies to the best of the researcher's knowledge, whether Nigeria or not, dwelt on the moderating effect of tax planning on the relationship between dividend policy and firm value of listed consumer goods companies. As a result, this study set out to employ tax planning as a moderating variable. Introducing tax planning as a moderator between dividend policy and firm value is desirable because it will depict the link between how well the management utilizes the firm's resources in generating corporate wealth and hence corporate value. Furthermore, it was observed from the literature reviewed that most of the studies used periods less than ten years(Turakpe & Filwe, 2017; Abdul-Wahab, 2016; Anike, 2014; Kawor & Kportorgbi, 2014; Oladipupo & Ibadin, 2013; Owuigbe et al., 2012).

The listed Nigerian consumer goods companies play an important role in the country because of the indispensability of their products to individuals and corporate organizations. Since the consumer goods sector is important just like the other sectors because it is the second major contributor to the market capitalization of the Nigeria Stock Exchange, contributing around 28% just like the banking sector and the third in 2022

Thus, as a departure, this study intends to fill the identified gap by covering a period of ten (10) years from 2014 to 2024. Another important point of consideration is that some studies used other measurements to measure firm value, not Tobin's Q. The current study observed that those studies are lagging, and this is because Tobin's Q is the most appropriate tool for measuring firm value. The reason for the popularity of this index is because of its ability to reflect the performance of management (Sahay& Pillai, 2009). This study, therefore, seeks to provide evidence on the moderating effect of tax planning on the relationship between firm value and dividend policy.

However, even though these consumer goods companies play an important role in the economy, not much attention is given to the study of how tax planning moderates the dividend policy and firm value of the consumer goods sector in Nigeria. In addition, despite the link between taxes, financing decision and firm value, the available empirical evidence is not really convincing on how taxes and dividend policies of firms affect their firm value (Izevbekhai & Odion, 2018). Therefore, this indicates that consumer goods companies' managers also need to understand how the use of effective tax rates (tax planning) and dividend policy will increase the value of their firms.

This study in sum attempts to address the imbalance by combining both the accounting-based and market-based measures of firm value, concentrating on the consumer goods companies and taking care of the problem of endogeneity.

Objectives of the Study

The study aims to determine the moderating effect of tax planning on the relationship between dividend policy and firm value. The specific objectives as guides to the study are to:

i. Examine the impact of dividend policy on the firm value of listed consumer goods firms in Nigeria.
ii. Examine the moderating effect of tax planning on the relationship between dividend policy and firm value of listed consumer goods firms in Nigeria.

Literature Review

This section comprises of a review of the conceptual literature, the theoretical underpinning of the study and prior empirical studies.

Conceptual Review

Dividend policy and firm value

Dividend policy influences firm value through channels such as signaling (dividends convey information about firm performance), investor preference (some investors prefer stable income), and agency cost reduction (dividends limit excess cash under managerial control). The relationship may vary depending on factors like tax considerations, profitability, and investment opportunities.

Tax planning and Firm Value

Tax planning involves legally minimizing tax liabilities through strategic use of existing tax regulations, unlike tax evasion which is illegal. It enables firms to retain more earnings by exploiting allowable gaps in tax laws (Pohan, 2013). Oyeyemi and Babatunde (2016) and Zemzem and Ftouhi (2013) suggest that tax planning can influence firm value. Lower tax payments increase internal funds, which can be reinvested to enhance performance and attract investors. This ultimately improves profitability and strengthens the firm's market reputation. Therefore, effective tax planning contributes to firm value by maximizing after-tax returns and reflecting managerial efficiency.

Tax planning, dividend policy and firm value

Dividend policy is the strategy a company uses to decide how much profit to distribute to shareholders versus how much to retain for reinvestment. Both tax planning and dividend policy influence a firm's cash flow, risk profile, and investor perception. Effective tax planning can increase available earnings, which may support higher or more stable dividends. Together, these decisions shape firm value by affecting profitability, growth opportunities, and shareholder returns.

Review of Empirical Studies

Turakpe and Filwe (2017) examined the relationship between dividend policy and firm performance in Nigeria using multiple regression analysis based on the financial reports of Nigerian Breweries Plc, Zenith Bank Plc, and Guaranty Trust Bank Plc from 2010 to 2016. The study produced mixed findings and could not establish a definite relationship between dividend policy and corporate performance. The authors recommended that shareholders of listed consumer goods firms should support programmes that improve staff training and welfare, as such investments contribute positively to firm value. Unlike the previous study, the current study incorporates tax planning as a moderating variable between dividend policy and firm value to achieve more robust results.

Akani and Sweneme (2016) investigated the effect of dividend policy on the profitability of listed manufacturing firms in Nigeria from 1981 to 2014 using panel data regression analysis. The findings showed that earnings retention had an inverse and insignificant effect on return on assets (ROA), while dividend payout ratio (DPO) had a direct but insignificant effect on ROA. The study recommended consistent declaration and payment of dividends to boost investors' confidence. However, the study did not specify the population of the study, a gap the current study intends to address.

Enekwe, Nweze, and Agu (2015) examined the effect of dividend payment on the market value of selected brewery firms in Nigeria using an ex-post facto research design. The study covered the period from 2013 to 2015 and employed panel regression analysis. The findings revealed that dividend payout ratio had a positive relationship with firm market value. The study concluded that adopting an optimal dividend policy could enhance shareholder wealth and increase firm value. It therefore recommended that brewery firms should pay dividends consistently on an annual basis to improve their market value. However, the study was limited by its short study period of only three years, whereas the current study covers a longer period of ten years, thereby providing broader and more reliable evidence.

Lumapow and Tumiwa (2017) investigated the determinants of dividend policy, firm size, and productivity on firm value using manufacturing companies listed on the Indonesia Stock Exchange from 2008 to 2014. The study adopted a purposive sampling technique and analyzed data using panel regression with a random effect model. The findings revealed that dividend policy had a negative and significant effect on firm value, while company productivity had a positive and significant impact on firm value. The study was conducted in Indonesia using purposive sampling, whereas the current study is carried out in Nigeria and adopts a census sampling method.

Nwaobia, Kwarbai, and Ogundajo (2016) examined the effect of tax planning on firm value using an ex-post facto research design. The study covered 50 firms over the period 2010–2014. The findings revealed that the combined effect of the tax planning proxies on firm value was significant, while effective tax rate (ETR), dividend, and firm age were positively and significantly related to firm value. The study concluded that a holistic approach to tax planning and an optimal mix of tax planning strategies are important determinants of firm value. It therefore recommended that company management should engage in legal tax planning practices to enhance firm value. However, the study focused on manufacturing companies, whereas the current study concentrates on consumer goods firms.

Theoretical Framework

Bird-in-Hand Theory

The Bird-in-Hand theory (Gordon and Lintner, 1962) suggests that investors prefer dividends over capital gains because dividends are more certain and less risky. Investor's value immediate dividend payments more than uncertain future returns, leading to a preference for higher dividend payouts. This implies that firms paying higher dividends are associated with better performance and higher valuation. Higher dividends also

reduce uncertainty about future cash flows and can lower the cost of capital. Therefore, firms are encouraged to maintain high dividend payout ratios to maximize stock price and firm value.

Signaling Theory

Signaling theory explains that dividend policy is used by firms to communicate private information about future earnings and profitability to investors, thereby reducing information asymmetry. Cash dividend announcements serve as positive signals of strong financial prospects, which can increase investor confidence and firm value. However, tax planning influences the strength of this signal by affecting after-tax returns, making dividend decisions more or less attractive to investors. Firms may therefore adjust dividend payouts strategically to balance signaling benefits with tax efficiency. Overall, firm value is enhanced when dividend policy and tax planning jointly send credible positive signals to the market.

Methodology

The study adopted a correlational research design to examine the relationship between dividend policy and firm value. Data were obtained from the annual reports of companies listed on the Nigerian Exchange Group covering a ten-year period from 2014 to 2024. The population consisted of 20 listed consumer goods firms, while secondary data for the regression analysis were collected from 10 selected companies after applying relevant filters based on data availability. A census sampling method was adopted due to the size of the population involved.

Model Specification

The econometric model used in this study was a multiple linear regressions model formulation. As a result, the research team created a model to guide the analysis. As such, the model for this variable calculates the dividend policy using Tobin's Q in (i) and the effective tax rate using the same Tobin's Q in (ii).The model is given below.

$$Tobin's\ Q_{it} = \beta_0 + \beta_1 DPR_{it} + \beta_2 ETR_{it} + \beta_3 SIZE_{it} + \beta_4 FAG_{it} + \varepsilon_i - - - (i)$$

The model below is used to determine the moderating effect of dividend policy on the connection between tax planning and firm value of listed consumer products in Nigeria. As a result, the interaction term will be produced by multiplying the tax variable by the dividend variable, and this will be used to test for interaction moderation.

$$Tobin's\ Q_{it} = \beta_0 + \beta_1 DPR_{it} + \beta_2 ETR_{it} + \beta_3 (DPR_{it} * ETR_{it}) + \beta_4 SIZE_{it} + \beta_5 FAG_{it} + \varepsilon_i - - - (ii)$$

This model is generated by the researcher from other models of the study. ETR, DPR (combined effect) is used to test the moderating influence of the independent variable on the dependent.

Where:

$Tobin's\ Q_{it}$ = Is a proxy of firm value
DPR_{it} = Dividend Payout Ratio at time t
ETR_{it} = Effective Tax Rate at time t
$SIZE_{it}$ = Size of the firm at time t

FAG_{it} = Number of years the firm at time t

$DPR_{it} * ETR_{it}$= Moderating effect of DPR and ETR at time t.

$\beta_0 =$ Is a parameter to be estimated (is the average amount the dependent variable increases when the independent increases by one-unit, other independent variables held constant at time t)

ε_i = Error term

$\beta_1 - \beta_5$= Is a gradient of the independent variable

4. Results and Discussion

The main quantitative features of the data of the dependent variable (firm value), the independent variable (dividend policy) and the moderating variable (tax planning) as well as control variables are summarized in this section. From all the observations, statistical data such as mean, maximum, minimum and standard deviation are calculated, as contained in Table 4.1.

Table 4.1 Model Descriptive Statistics

Variable	Observation	Mean	Standard Deviation	Minimum	Maximum
Tobin Q	100	0.963	1.360508	-2.99	8.03
DPO	100	0.4548183	0.9610351	-3.034535	18.29268
ETR	100	0.1785	0.7696763	0.3042694	1.541923
SIZE	100	7.278478	0.8728443	4.935638	8.761723
AGE	100	27.26425	14.32536	3	55

Source: Generated by the researcher using STATA version 14 from annual reports of the sampled listed consumer goods companies

Table 4.1 shows descriptive statistics were computed for the dependent, moderating, and explanatory variables based on a total of 100 observations. The table presents the mean, standard deviation, minimum, and maximum values for each variable.

The results indicate that the average Tobin's Q is approximately 0.963. This suggests that the listed consumer goods companies recorded an average market performance of 96.3% per ₦1 share value. Tobin's Q ranged from a minimum value of -2.9 to a maximum of 8.03. The standard deviation of 1.361 reveals a considerable level of dispersion among the sampled firms, indicating substantial variability in their market performance.

The average Dividend Payout (DPO) attributable to ordinary shareholders is 45.5%, implying that shareholders earned an average return of ₦1.455 on every ₦1 ordinary share. The standard deviation of 0.961 indicates a significant variation in dividend payout among the listed consumer goods firms in Nigeria.

The Effective Tax Rate (ETR) has an average value of 0.1785 with a standard deviation of 0.770, suggesting a moderate level of variation from the mean across the sampled companies.

In addition, Firm Size (SIZE) recorded an average value of 7.728 with a standard deviation of 0.873, while Firm Age (AGE) showed an average of 27.264 years and a standard deviation of 14.325, indicating differences in the ages of the firms included in the study.

Correlation Analysis

Table 4.2 Model Correlation Results

Variable	Tobin Q	DPO	ETR	SIZE	AGE
Tobin Q	1.0000				
DPO	0.1558	1.0000			
ETR	0.0668	0.9846	1.0000		
SIZE	0.1190	0.1387	0.3726	1.0000	
AGE	0.0035	0.1188	-0.0034	0.0561	1.0000

Source: Generated by the researcher using STATA version 14 from annual reports of the sampled listed sampled consumer goods companies

Table 4.2, shows the correlation results of dependent variable Tobin Q and the independent variable Dividend Payout (DPO)and moderating variable Effective Tax Rate (ETR) as well as the control variables Firm Size (SIZE) and Firm Age (AGE). The relationship between Tobin Q and independent and moderating variable is very weak and positive. This means that, all things being equal, the lower the DPO and ETR, the lower the Tobin Q. However, the relationship between Tobin Q and control variables, SIZE and AGE, is positive and very weak.

Regression Analysis

A robustness test was conducted to enhance the reliability and validity of the study's findings, including tests for multicollinearity, heteroscedasticity, and normality of errors. The multicollinearity test showed low correlations among independent variables, indicating no serious issue. This was further confirmed by tolerance and Variance Inflation Factor (VIF) values, which were all below the acceptable threshold, supporting the absence of multicollinearity. Additionally, the Hausman test was applied to ensure the efficiency and consistency of the panel model, and diagnostic checks using fitted values indicated no significant estimation bias. Table (4.3) and Table (4.4 and 4.5) present the VIFs for the panel models, and Hausman test for the two models of Tobin Q respectively.

Table 4.3 Variance Inflation Factors - Panel Model

Model	Tobin Q I		Tobin Q II	
Variables	VIF	1/VIF	VIF	1/VIF
DPO	1.11	0.900090	1.56	0.641025
ETR	1.16	0.862068	1.24	0.806451
SIZE	1.15	0.869565	1.54	0.649350
AGE	1.17	0.854700	1.50	0.666667
Average VIF	1.15		1.46	

Source: Generated by the researcher using STATA 14 from annual reports of the sampled listed consumer goods companies

For table 4.3, the average VIF for the Tobin Q model is 1.15, indicating weak multicollinearity and thus maximizing the efficiency of the estimates overall. For the model two, the average VIF for the Tobin Q model is 1.46, indicating weak multicollinearity and thus maximizing the efficiency of the estimates overall.

The Hausman Test for the Models with Tobin Q as the Dependent:

Table 4.4 Hausman Test – Tobin Q

	Coefficient			
Dependent variable: Tobin Q	FE 1	RE 1	Difference	S.E.
DPO	-0.00145	-0.000917	-0.0005327	0.0008023
ETR	-0.000810	-0.000771	-0.0000396	0.000111
SIZE	-0.001620	-0.002168	0.0005483	0.0012314
AGE	0.0746287	0.0614949	0.0131339	0.015157
Average			0.003	0.004
$\boldsymbol{X^2 = 0.99}$ **P = 0.9860**				

Source: Generated by the researcher using STATA 14 from annual reports of the sampled listed oil and gas companies

Variable. Table 4.4 displays the Hausman test for the models with Tobin Q as the dependent variable. The average difference between the FE1 and RE1 coefficients is 0.003 with an average standard error of 0.004. The test-statistic χ^2 is 0.99, being associated with a p-value of 0.9860. Therefore, the null hypothesis is not rejected, and the FE1 and RE1 model is inconsistent. In effect, the ordinary least regression model is preferred. Heteroscedasticity Test: Breusch-Pagan was used to test the null hypothesis that the error variances are all equal versus the alternative that the error variances are a multiplicative function of one or more variables. A large chi-square would indicate that heteroscedasticity was present. In the result obtained from the heteroscedasticity test conducted, the chi-square value (9.32) is small and the p-value (0.0023) is small, indicating heteroscedasticity is not present and this shows non violation of assumption number four of classical linear regression model which states that: there must be constant variance, that is, the disturbances μ_i appearing in the population regression function should be homoscedastic.

Table 4.5 Model Regression Results

Variables	**Model I (Tobin Q)**			**Model II (Tobin Q)**		
	Coefficient	T	P>|t|	Coefficient	T	P>|t|
CONSTANT	0.8895996	3.52	0.001	-0.0052988	-0.07	0.944
DPO	0.0435128**	2.06	0.042	2.409573**	2.23	0.027
ETR	-0.1893291**	-2.15	0.033	0.0378530***	4.24	0.000
ETR*DPO	-----	---	----	-1.395611**	-2.56	0.011
SIZE	1.770691	0.28	0.783	2.75334	0.40	0.688
AGE	0.0484492	1.58	0.117	-0.1348047	-0.57	0.568
Prob> F	0.0071			0.0001		
F	3.15			4.67		
R^2	0.1577			0.2738		
Adj. R^2	0.1076			0.2152		

Source: Generated by the researcher using STATA 14 from annual reports of the sampled listed consumer goods companies

** Significant in 10% **Significant in 5% ***Significant in 1%*

Table 4.3 illustrates the regression results of the models and consists of model I and II. The model I consists of dependent variable Tobin Q and independent variables Dividend Pay Out (DPO) and Effective Tax Rate (ETR) as well as control variables, Firm Size (SIZE) and Firm Age (AGE). In the model I, the multiple coefficients of determinate R^2 is 0. 1577.This means that 15.8% of change in Tobin Q (Firm Value) was caused by changes in independent variables, DPO (Dividend Policy) and ETR (Tax Planning) as well as control variables, SIZE and AGE. The 84.2% change in Tobin Q was caused by other factors not included in the model such as firm characteristics, foreign direct investment and corporate social responsibility etc. The regression result indicates that all the independent variables are significant in determining firm value of consumer goods companies listed on Nigeria Stock Exchange. The F value is significant at 1% level ($F = 3.15$, $p < 0.0071$) showing the applicability of the overall model.

In analyzing the result, Table 4.5 shows DPO has positive and significant impact on Tobin Q at 5% level of significance. This can be justified through the positive "t" value of 2.06 and P>|t| 0.042. It has also been validated by the positive coefficient of 0.044 which means that, an increase in DPO by one more unit, other independent variables remaining constant, inversely affects the firm's value by 0.042. This implies that, DPO has a positive and significant impact on Tobin Q of listed sample consumer goods companies in Nigeria and hence dividend policy in this regard is relevant. Therefore, the findings are in line with the studies of Uwuigbe, jafaru& Ajayi (2012) and Enekwe, Nweze and Agu (2015) where the former investigate the quoted cement companies in Nigeria. However, Kajola, Adewumi and Oworu (2015), hold that regression results reveal a positive and significant relationship between dividend payout policy (DPO) and firm performance of 25 non-financial firms listed on the Nigerian stock exchange. This position is however contrary to Amidu (2007) where a positive but statistically insignificant relationship is found between ROA with Div Pay and age. And Thus, it can be said that the bird- in -hand theory is a very important hypothesis of dividend policy since it shows that dividend policy enhances profitability of companies. Therefore, dividend policy in this regard is relevant and thus the null hypothesis (H_{01}) is rejected.

A negative Effective Tax Rate (ETR) implies that a company's tax expense is less than zero, meaning the firm recorded a tax benefit rather than paying taxes during the reporting period. In relation to tax planning, a negative ETR generally suggests the presence of aggressive or highly efficient tax planning strategies.

From a tax planning perspective, a negative ETR may therefore indicate that the company is highly effective in minimizing tax burdens. However, persistent negative ETRs could also attract regulatory scrutiny because they may signal overly aggressive tax avoidance practices.

Furthermore, ETR has positive and significant impact on Tobin Q at 5% level of significance, this can be explained by observing the negative "t" value of -2.15 and P>|t| 0.033, which shows that negative coefficient of -0.189 attests that, an increase in ETR by one more unit, other independent variable remaining constant, increases the firm value of listed sample of consumer goods companies in Nigeria by -0.189 and hence. As such, tax planning in this regard is relevant. This is consistent withGatsi, Gatzo&kportorgbi (2014), who state that to effect a change in the reduction of a percentage of tax paid in every unit, companies should engage in tax planning so that the net effect of their tax contributions to government would not impact so much on their revenue generating activities Thus, a unit decrease in effect tax rate, leads to an increase in firm value. The findings are consistent with prior research on the effect of tax planning practice on firm value. This) affirms that the result is similar to that of Desai &Dpharmapala (2009a), on how tax planning influences firm value. However, a measure of firm value (Tobin's q) indicates that an increase in tax planning of listed consumers goods companies leads to an increase in firm value. Therefore, tax planning in this regard is relevant and thus the null hypothesis (H_{02}) is rejected. The model II consists of dependent variable Firm value (Tobin Q) and independent variable Dividend Pay-Out (DPO) and moderating variable Tax Planning (ETR) as well as control variables Firm Size (SIZE) and Firm Age (AGE). In the model, the multiple coefficient of determinate R^2 is 0.2738%. This means that 27.4% of change in Tobin Q was caused by moderation on the relationship of independent and dependent variables. The selected tax planning proxy shows moderation between dividend policy and firm value. Effective Tax Rate (ETR) ratio moderates the relationship under discussion between dividend pay out to firm value negatively. Showing significant validity statistics as implied by F-stat ($F = 4.67$, $p < 0.0001$) and significant at 1% level of significance and overall goodness of fit (adjusted R-squared) has also increased to 27.4% showing the applicability of the overall model. The results are significant at allowed margins of errors (1% and 5%) respectively.

5.0 Conclusion and Recommendations

The study shows that dividend payout has a significant positive effect on firm value, with both dividend policy and firm size showing strong relationships with value as measured by **Tobin's Q**. Firms with consistent and well-structured dividend policies tend to experience higher value, as increased payouts signal strength and attract investors. However, Tax planning also plays an important role. Although the effective tax rate shows a positive but insignificant direct impact on firm value, efficient tax planning strategies can reduce tax burdens, increase after-tax profits, and encourage external investment, thereby enhancing firm value over time.

Overall, tax planning significantly moderates the relationship between dividend policy and firm value. Companies that maintain higher dividend payout ratios alongside effective tax planning tend to achieve greater growth and improved firm value compared to those with weaker policies.

Management of listed Nigerian consumer goods firms should prioritize stable earnings by adopting sound strategies grounded in careful assessment of both internal capabilities and external market conditions. Continuous monitoring and benchmarking against set targets and competitors can help maintain consistent performance, enabling firms to distribute a higher proportion of their earnings as dividends. This, in turn, enhances shareholder confidence and contributes positively to firm value.

Additionally, improving firm value requires effective and legal tax planning. Engaging tax experts can help firms implement strategies such as transfer pricing and optimal intra-company debt structuring to reduce tax liabilities. Lower tax expenses, and increase net income after tax, which ultimately strengthens profitability and boosts the overall value of the firm.

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IMPACT OF VALUE ADDED TAX ON INTERNALLY GENERATED REVENUE IN NIGERIA

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Abstract
The Nigerian economy is dependent on crude oil revenue. In a bid to diversify the sources of revenue for the country, the Federal Government introduced the Value Added Tax via the instrument of the Value Added Tax Act 1993. This article assesses the impact of value added tax on revenue generation of Nigeria between 2015 - 2025 using time series data on Internally Generated Revenue (IGR) as the dependent variable and Value Added Tax (VAT) as independent variable together with control variables which include Petroleum Profit Tax (PPT), Company Income Tax (CIT), and Custom and Exercise Duties (CED). The data for the variables were sourced from the Nigerian Revenue Services (NRS) formally Federal Inland Revenue Service (FIRS), Central Bank of Nigeria (CBN) and the National Bureau of Statistics (NBS). Multiple regression analysis was employed to analyze the data. The findings reveal that, VAT and PPT have a significant positive statistical relationship with IGR over the period under consideration. Also, CED has a significant positive statistical relationship with IGR, while CIT does not have a significant relationship with IGR. Since VAT has a significant relationship with the Internally Generated Revenue of Nigeria over the period of 2015 to 2025, it is therefore recommended that the federal government should make all efforts to continue to centralize VAT collection and to constantly review the VAT Act, to bring it up to date with current economic realities.

***Keywords*:** Taxation, Value Added Tax, revenue generation, Fiscal policy, Tax administration

1. Introduction

The Nigerian economy is basically a mono-product driven economy. Crude oil has been its main stay since 1956 when it was discovered in commercial quantity in Oloibiri, in the present Bayelsa State (Soyode & Kajola, 2006). Revenue from petroleum profit tax is the most significant source of revenue of the Nigerian government, accounting for over 80% of government revenue and over 90% of its total foreign exchange earnings (Soyode & Kajola, 2006). Over the past half century, Nigeria has mostly depended on oil for its revenue source. This scenario is not good for the economy, as any misfortune in the petroleum sector will translate to calamity for the nation. This is worsened by the fact that crude oil is not a renewable energy source, which means it is possible to dry up at any time implying the revenue derived from it will also decline and the country could plunged into crises.

In a bid to diversify the sources of revenue for the country, the Federal Government set up a committee in 1991 to review the system of indirect taxes in the country, with a view to broadening it.

This culminated in the introduction of the Value Added Tax via the instrument of the Value Added Tax Act 1993. This new tax, which became effective on January 1, 1994, replaced the former sales tax, which had a narrower base (Gyang, 2012). Moreover, VAT, as a form of indirect tax, is acclaimed to be easier and more convenient to collect than other direct taxes like income, profit, capital gains taxes. This study, therefore, is aimed at assessing the impact of Value Added Tax (VAT) on IGR in Nigeria. This is in recognition of the VAT as a veritable alternative source of revenue that can foster development by the government.

Based on this background, the article intends to investigate whether VAT has made any significant impact to the volume of internally generated revenue during the study period and to ascertain the extent of its generation and make recommendations. This study covers the contributions of VAT to Internally generated revenue of Nigeria for the years 2005 to 2025 only. The study is justified it is expected to provide decision makers in government with recommendations that would help in policy decision making relating to Value Added Tax , specifically, and taxation in Nigeria generally, as they strive towards diversifying the sources of revenue accruing to the government.

To this end, the article is organized into five sections. Section one contains the general introduction which includes research problem, objectives and scope of the study. Section two contains the literature review and theoretical framework, while section three contains the Methodology, results and discussions are in section four. The last section contains the concluding remarks which includes policy recommendations.

2. Literature Review and Theoretical Framework

This section undertakes a review of relevant literature related to the subject matter of this study. It is divided into conceptual review of key concepts followed by review of empirical studies and the review of theoretical framework upon which the study is pinned.

2.1 Conceptual Review

2.1.1 Value Added Tax

This is the amount of tax charged on the value added to a product at each stage of the production process. The current standard Value Added Tax (VAT) rate in Nigeria is 7.5%, which has been in effect since February 1, 2020. This rate applies to most goods and services, including recent mandates for 7.5% VAT on specific banking transaction fees (e.g., card fees, transfer charges (FIRS, 2024). The same rate is retained currently based on Nigeria Tax Act (NTA) 2025. In line with the above, one can say that it is consumption based tax on specific goods and services.

2.1.2 Internally Generated Revenue

Internally generated revenue refers to revenue generated (or collected) by all the three tiers of government: the Federal, State and Local Governments in Nigeria. Internally Generated Revenue (IGR) in Nigeria comprises taxes and non-tax revenues collected by states and local governments, separate from federal allocations (NBS, 2023). VAT is one of the significant sources of Internally

generated revenue in Nigeria as it is collected at point of transaction hence it cannot be avoided nor averted but the burden can be transferred as it is a form of indirect tax.

2.1.3 Economic Development

Economic development here means increase in the production of goods and services in a country over time which results in a better standard of living for the citizens. Economic growth can be proxied by gross domestic product, gross national product or better by the human development index. Another way of capturing economic development is through the volume of government revenue accrued over a period of time.

2.2 Empirical Review

Value Added Tax (VAT) has a long history. This section of the review considers the evolution and development of VAT worldwide and in Nigeria. Citing Ebrill et al (2001) and Keen and Lockwood (2007), James (2011) opined that, VAT has, from relatively fateful beginnings in the early 20th century, been adopted in more than 140 countries and accounts for approximately 20 percent of worldwide tax revenue. It can therefore be concluded that VAT has for long been a significant component of nation's revenue worldwide.

The evolution of VAT is attributed to Wilhelm von Siemens, a German industrialist, who proposed the VAT system as a way to resolve the country's problem of falling taxes; this is where separate taxes at each stage of production and distribution distort the market and lead to higher prices for consumers. Thomas S. Adams, an American economist also proposed VAT to the U.S. Congress in the 1920s; his justification was that it would be a more efficient and fairer way to raise revenue.

Value Added Tax is imposed on the net sales value of non-exempt, qualifying goods and services in Nigeria. It is levied on any individual, corporation sole, group, body corporate or organization that consumes, procures or imports taxable goods or services (Okoyeuzu, 2013).

The effect of value added tax on revenue generation and economic growth in Nigeria was analyzed by Odu (2022) using time series data employing regression analysis. The study found that, VAT has a significant effect on total tax revenue with a two-year lag and it increasingly explains changes in total tax revenue with time. The study also revealed that VAT has a significant and negative effect on GDP. This indicates that previous years' volume of VAT affects the current volume and therefore there is the need to maintain the generation for sustainability of VAT to reap its full benefits.

Edojor et.al (2019) studied the significance of VAT to total revenue in Nigeria using ex-post research design with utilization of secondary data to show the contributions of VAT to total revenue between 1994 to 2017. The authors used descriptive statistics using charts in their analysis, the main findings unearthed the contributions of VAT for the period of the study to be satisfactory and also found that VAT is generally not characterized with threatening oscillations annually over the period. This study therefore, though constrained by data and employed

a descriptive statistics showed the significance of VAT to revenue generation of Nigeria. The study should have employed inferential statistics to further buttress its findings and make it more robust.

Ihendinihu and Ibanichuka (2014) viewed taxation VAT inclusive and fiscal functions in Nigeria and analyzed the ratio of tax revenue of Nigeria to its GDP. The study found that it is among the lowest in the selected Africa countries and therefore this implied the need to boost taxation like VAT so that more internally generated revenue could be realized which will lead to higher economic growth and development as well. This study broadly covered taxation, though VAT is included should have separated the ratio of each category of tax to GDP for policy analysis so that policy makers can be guided by which category of tax to boost based on its significance.

Akolapo (2024), examined the trend pattern of Value Added Tax revenue and manufacturing output in Nigeria and went further to explore the causal link between VAT revenue and manufacturing output employing the conventional time series methodology of bound cointegration specifically the use of Autoregressive Distributed Lag Model (ARDL). The variables used include Manufacturing output (MO), Value Added Tax (VAT), Company Income Tax (CIT) and Petroleum Profit Tax (PPT) obtained from the Central Bank of Nigeria and Federal Inland Revenue Service. The study found that VAT has a significant relationship with manufacturing output along the various value addition levels. One of the weaknesses of this study is its inability to link up the VAT collected or rather generated by the manufacturing output to the total revenue generation of the country.

Temitayo (2022) attempted to analyze the effect of VAT on Nigeria's revenue generation and economic growth. Based on ex-post facto research design data were collected from the Central Bank of Nigeria (CBN) statistical bulletin, Federal Inland Revenue Service reports, the Federal Office of Statistics, and the Federal Ministry of Finance for a period between 1994 to 2018. Multiple regression analysis based on technique of OLS was used in the estimation. The findings showed that the impact of VAT on tax revenue generation and economic growth of Nigeria was positive and significant. Even though the study unearthed the significance of VAT to tax revenue, it aggregated economic growth as part of the analysis making it difficult to appreciate the sole impact of VAT.

Promise and Israel (2022) investigated the relationship between Value Added Tax revenue and revenue allocation in Nigeria within the period of 2000 to 2020; it specifically focused on the relationship between VAT and allocations of three tiers of government namely federal state and local governments. The study used ex post facto design based on secondary data obtained from annual statistical bulletin of the Central Bank of Nigeria. Descriptive statistics and trend analysis were used for data analysis while Regression was used in testing the hypothesis. The findings revealed that, VAT has a positive and significant relationship with allocations signifying its positive contribution to revenue

generation of the country. This study disaggregated the significance VAT to tiers of government without estimating the total impact to the revenue generation in the country as a whole.

2.3 Theoretical Framework

2.3.1 The Benefits Received Theory of Taxation

The theoretical framework relating to VAT and revenue generation is based on indirect taxation theories as VAT is a form of indirect tax; VAT is levied on consumption at each stage of value addition. One major theory is the benefit theory which is based on improving revenue generation to authorities.

The benefits received theory is hinged on the principle of income tax fairness advocating that citizens who use or benefit from certain goods and services pay taxes for those goods and or services in equal manner. Alternatively, citizens who do not use certain goods and or services will not be taxed for such services. Furthermore, citizens using a certain economic good that has value should pay for the value addition at some stages of consumption. According to the theory, certain licenses are charged taxes because they are related to a certain service.

Under the benefits received axiom of taxation, individuals receiving the benefits of a particular service should be responsible for paying for those benefits. As such, individuals who do not use received the value of the benefits are not subjected to this form of tax. The relevance of this theory as a theoretical base can be seen in the structure of VAT from its conception down to its modes of operation up to who pays it and at the point of getting value. By and large the benefits received from VAT forms significant portion of the authorities' revenue pool that can further be used to provide social facilities to citizens and stabilize the economy as well.

3. Methodology

3.1 Sources and Types of data

The data used in the study is mainly secondary in nature, obtained from the Nigerian Revenue services formally Federal Internal Revenue Service, the Central Bank of Nigeria and the National Bureau of Statistics. The frequency of the data is annual.

3.2 Population Sample and sampling

The population of this study is Government Revenue (GR) consisting of revenue generated by the Federal Government, all State Governments and all Local Government Councils in Nigeria and the Internally Generated Revenue (IGR) (the dependent variables) as well as Value Added Tax, Petroleum Profit Tax (PPT), Company Income Tax (CIT), and Custom and Exercise Duties (CED). The sample covered years 2015 to 2025, considered relevant since they cover significant periods

3.3 Model Specification

The functional form of the model is given by the equation 3 below;

$IGR = f(VAT, PPT, CIT, CED)$ _____ (3.1)

Taking the log of the variables and adding random error term transforms equation 3.1 to 3.2 below:

$LIGR = \beta_o + \beta_1 LVAT + \beta_2 LPPT + \beta_3 LCIT + \beta_4 LCED + \mu$ _____ (3.2)

Where LIGR = log of Internally Generated Revenue; LVAT = log of Value Added Tax; LPPT = log of Petroleum Profit Tax; LCIT = log of Company Income Tax; LCED = log of Custom and Excise Duties; β_o is a constant (or intercept); β_1, β_2, β_3, and $\beta 4$ are coefficients of the regression model (of the independent variables); while μ is still the error (or disturbance) term.

The estimation of the regression is based on Ordinary Least Squares (OLS) justified based on its properties of being Best Linear Unbiased Estimator (BLUE) which is supported by the Gauss Markov theorem, however one of its limitations is that the regression equation is only a prediction rule; thus there are discrepancies between actual observations and the ones predicted. Despite this, OLS still remains one of the robust techniques in estimating multiple regression between dependent and independent variables.

3.4 Definition and Measurement of Variables

Table 3.1 Measurement of Variables and Sources

Variable	Definition and Measurement	Source
IGR	Revenue collected by federal state or local governments within their own jurisdictions, sourced from direct and indirect taxes	CBN Statistical Bulletin (2024), Nigeria Revenue Services (2025) and National Bureau of Statistics (2024)
VAT	VAA form of indirect tax paid by consumers and collected by producers/sellers at each stage of the supply chain and remitted to federal government	CBN Statistical Bulletin (2024), Nigeria Revenue Services (2025) and National Bureau of Statistics (2024)
PPT	Taxes levied for upstream operations, requiring 85% of chargeable profits for joint ventures, but including Hydrocarbon Tax	CBN Statistical Bulletin (2024), Nigeria Revenue Services (2025) and National Bureau of Statistics (2024)
CIT	A 30% tax levied by Nigerian tax authority on the profits of registered companies (excluding petroleum) and Small companies with turnover of less than ₦25m	CBN Statistical Bulletin (2024), Nigeria Revenue Services (2025) and National Bureau of Statistics (2024)
CED	These are forms of indirect taxes, levied on exports and imports while it contains tax on specific goods produced, manufactured, or imported	CBN Statistical Bulletin (2024), Nigeria Revenue Services (2025) and National Bureau of Statistics (2024)

	into a country like alcohol, tobacco, and luxury items	

Source: Authors' compilation (2026)

4. Results and Discussions

Data were collected from CBN annual reports and statistics and NBS annual extracts of statistical data and Federal Inland revenue Service (FIRS), which is now the Nigerian Revenue Services.

As indicated above data collected are here presented in tabular forms

4.1 Presentation of Data

Table 4.1: IGR, PPT, CIT, CED, and VAT for the years 2015 to 2024 (N'Million)

YEAR	IGR	PPT	CIT	CED	VAT
2015	20,657,317.67	1,600,600.00	275,300.00	241,400.00	289,600.00
2016	24,296,329.29	2,812,500.00	416,800.00	281,300.00	404,500.00
2017	24,794,238.66	1,256,500.00	568,100.00	297,500.00	468,400.00
2018	33,984,754.13	1,944,700.00	657,300.00	309,200.00	562,900.00
2019	37,409,860.61	3,976,300.00	700,500.00	438,300.00	649,500.00
2020	40,544,099.94	4,365,390.00	848,570.00	474,920.00	693,150.00
2021	47,533,119.11	4,915,350.00	879,130.00	645,020.00	740,220.00
2022	53,111,039.12	5,345,110.00	902,220.00	710,110.00	783,330.00
2023	54,524,871.45	6,075,340.00	967,120.00	826,142.00	867,121.00
2024	63,534,123.24	7,215,390.00	1001,011.00	913,920.00	910,220.00

Source: FIRS (2024) CBN Statistical Bulletin, Various Issues, NBS (2025)

Table 4.1 above shows that all the variables of the research have grown phenomenally during the period under study. IGR grew from N20,657,317.67 in 2015 to N40,544,099.94 2020; PPT from N 1,600,600.00 to N4,365,390.00; CIT from N275,300.00 to N848,570.00; CED from N241,400.00 to N474,920.00 and VAT from N289,600.00 to N710,150.00, over the years under investigation. At this point, the analysis of data shall be carried out using the OLS model of regression analysis as earlier stated in section three. The results of the analysis are presented here in table 4.2

Table 4.2: Ordinary Least Squares Estimate, IGR as dependent variable

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.314179	0.266345	16.19771	0.0000
VAT	1.151482	0.181792	6.334069	0.0000
PPT	0.123189	0.038857	3.170347	0.0068
CIT	0.173738	0.114558	1.516596	0.1516
CED	0.578255	0.145300	3.979729	0.0014
R-squared	0.995504	Mean dependent var		6.997881
Adjusted R-squared	0.994219	S.D. dependent var		0.417487
S.E. of regression	0.031741	Akaike info criterion		-3.841450
Sum squared resid	0.014105	Schwarz criterion		-3.592913
Log likelihood	41.49377	Hannan-Quinn criter.		-3.799388
F-statistic	774.9751	Durbin-Watson stat		1.98685
Prob(F-statistic)	0.000000			

Source: Authors' computation using e Views 10 computer software, 2026

The result in table 4.2 shows an intercept (or constant) value of 4.314179 and a Probability "p" value of 0.0000 for all the independent variables of the research.

The independent variables individually, however, show the following results: VAT has an OLS coefficient of 1.151482 and a 'p' value of 0.0000; PPT has an OLS coefficient of 0.123189 and a 'p' value of 0.0068; CIT has an

OLS coefficient of 0.173738 and a 'p' value of 0.1516, while CED has an OLS coefficient of 0.578255 and a 'p' value of 0.0014. A Durbin-Watson statistic of 1.98685 indicates no serial correlation among the residuals.

Again, it is important to test for the fitness of the OLS model with the variables and data of the research to determine the appropriateness of the model in estimating the research statistics. For this purpose, the OLS model was tested by the following three residuals tests: Serial Correlation, Normality and Heteroscedasticity. The serial correlation test was carried out to determine if there exists serial correlation among the variables of the research, which will then require further analysis of the residuals. The normality test was carried out to determine if the data is normally distributed to warrant using the OLS regression analysis model in analyzing the data. On the other hand, the Heteroscedasticity test was carried out to test the homogeneity of the data, as it is important for such analysis. The results of the tests are presented in Table 4.3

Table 4.3: Residual Statistics

S/N	Test	Hypothesis	Method	F Statistic (p)	Decision
1	Serial Correlation Test	There is no serial correlation	Breusch-Godfrey Serial Correlation LM Test	0.583646 (0.7469)	There is no serial correlation
2	Normality Test	The data is normally distributed	Jaque-Bera Normality Test	0.462489 (0.793545)	The data is normally distributed
3	Heteroskedasticity Test	There is no heteroscedasticity	Breusch-Pagan-Godfrey Heteroskedasticity Test	1.353837 (0.8522)	There is heteroscedasticity

Source: Authors' Computation using e Views 10 Computer Software, 2026

It is obvious from the results that there is no serial correlation since the 'p' value calculated of 0.70469 is greater than the 0.05 level of significance. It also shows that there is no heteroscedasticity as the 'p' value of 0.8522 is greater than 0.05 level of significance. The data is also found to be normally distributed because the calculated 'p' value is greater than 0.05. All three residuals, therefore, confirm the fitness of the OLS model for carrying out the analysis.

4.2 Discussion of Results

Least Squares (OLS) Model or regression analysis

$$LIGR = \beta_o + \beta_1 LVAT + \beta_2 LPPT + \beta_3 LCIT + \beta_4 LCED + \mu$$

Where LIGR = log of Internally Generated Revenue; LVAT = log of Value Added Tax; LPPT = log of Petroleum Profit Tax; LIT = log of Company Income Tax; LCED = log of Custom and Excise Duties; β_o is a constant (or intercept); β_1, β_2, β_3, and $\beta 4$ are coefficients of the regression model (of the independent

variables); while μ is still the error (or disturbance) term.

The 'p' value of the OLS result is 0.000. This means there is a significant statistical relationship. The individual independent variables of the OLS: VAT, PPT, CIT and CED have the following coefficients: VAT has an OLS coefficient of 1.151482 and a 'p' value of 0.0000; PPT has an OLS coefficient of 0.123189 and a 'p' value of 0.0068; CIT has an OLS coefficient of -0.173738 and a 'p' value of 0.1516, while CED has an OLS coefficient of -0.578255 and a 'p' value of 0.0014. The coefficient of determination is (R^2) of 0.995504 .shows that the explainatory variables explained the dependent variable by 99.55 percent.

The result of the test of hypothesis indicates the following: VAT and PPT have a significant positive statistical relationship with IGR in Nigeria over the period under consideration. Also, CED has a significant positive statistical relationship with IGR, while CIT does not have a significant relationship with IGR. The coefficient of determination means that, together, the independent variables of the study explain 99.55% of the variation in IGR. This means the other 0.45% variation in IGR is explained by other factors not considered in the research as represented by the disturbance term.

The summary of these findings is that VAT has a significant relationship with the Internally Generated Revenue of Nigeria over the period of 2015 to 2025 perhaps due to the efficiency in collection as no evasion and or avoidance takes place.

The result of this research, which shows a significant relationship between VAT and Internally Generated Revenue, underscores the importance of the Value Added Tax (VAT) and Petroleum Profit Tax (PPT) as important sources of revenue that the Federal Government can use in its bid to improve the revenue base of the country and ensure economic growth and development. VAT therefore, if well remitted can be an important portion of total IGR and that may possibly be the reason behind some state governments enacting laws to be able to access it directly and increase their IGR bases.

5. Conclusion and Recommendations

5.1 Conclusion

The analysis of data revealed the following, which shall serve as the basis for drawing conclusions: Internally Generated Revenue significantly grew which is an indication that given the right atmosphere, VAT has the capacity to serve as a veritable alternative source of revenue for government in Nigeria. Apart from VAT, other sources of government revenue like company income tax, and customs and exercise duties are also significant part of the IGR and have been contributing so far. However, VAT was found to be the most efficient in terms of tax aversion and avoidance as it is collected in the process of a commodity purchased and if well remitted can be used for development purposes. The potentialities associated to VAT as source of internally generated revenue may perhaps be one of the reasons why some state governors in Nigeria are trying to enact laws that will permit them to collect VAT directly in their states contradicting the federal government efforts to

collect VAT and distribute it to state and local governments respectively.

From the above findings, this research concludes that Value Added Tax (VAT) has contributed to the Internally Generated Revenue of Nigeria under the period of investigation that is 2015 - 2025. This is evident in the significant relationship it has with the total IGR in the OLS regression analysis conducted, as well as the phenomenal growth in revenue that it has generated for government over the period under study. Therefore, VAT is a significant and important revenue source in Nigeria. Given the above, it is clear that if the right atmosphere is provided and government policies are directed at improving the situation and creating awareness, the VAT has the potential to generate significant revenue for government and help in the diversification of its revenue source.

5.2 Recommendations

Based on the findings and conclusions drawn from this study, the following recommendations are made with a view to ensuring a more effective and robust Value Added Tax system in Nigeria that can better contribute to revenue generation and diversification of the revenue base of the government towards national development:

The Federal Government should keep abreast of happenings in other countries and make all efforts to continue to centralize VAT collection at federal government level; state governments should not be allowed to do so as it will create a lot of confusion in the collection process.

More stringent penalties should be imposed by the Nigerian Revenue services on corporate bodies that indulge in any form of VAT malpractice such as non-remittances of the VAT collected.

Federal government should constantly review the VAT Act, to bring it up to date with current economic realities in the world. The exempted items should be reviewed to cover only essential items and others deemed fit by the government.

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