

DELSU Journal of Management Sciences (DELJOMS)



A Publication of the Faculty of Management Sciences, Delta State University, Abraka

Volume 7, Number 1, June 2025

EDITORIAL BOARD MEMBERS

Editor-in-Chief

Professor Mukoro Akpomuvire PhD

Editor

Professor Ehiedu, Victor C. PhD

Associate Editors

Professor Olannye A.P.

Professor Okolie A.C.

Professor Jeroh, E. PhD

Professor (Mrs.) Onuorah A.C. PhD

Professor Oditia, A. PhD

Professor Osuji C.C. PhD

Professor Eromafuru E. PhD

Professor Kifordu, A. A. PhD

Professor Taruhror E PhD

Professor Orishede F. PhD

Professor Okereka P. PhD

Professor Odiri V.I. PhD

Professor Osazevbaru H.O.

Editorial Advisory Board

Professor Oboreh, J. S.

Professor Damaki G.O.

Professor Yomere, G. O.

Professor Okolie, A. C.

Professor Asaolu T.

Professor Egbon P.C

Professor Orubu, C.O

Professor Nkamnebe A. D

Professor Hamilton, D.I

Professor Umoh G.

Professor Dabor, L.E

In this issue:

Association Between Development Banking And Technical Innovation In Nigeria: An Empirical Analysis

Cybersecurity and Firm Performance: Bridging the Gap between Protection and Profitability

Venue Attributes and Wedding Banquet Choice: An Empirical Evidence of Couples in Lagos State Nigeria

A Correlational Assessment of the Impact of Teamwork on Employee Optimum Goal Delivery Among Selected Manufacturing Firms in Nigeria

Modeling Market Microstructure and Time Series in Nigerian Exchange Limited

International Public Sector Accounting Standards Adoption and the Quality of Financial Reporting in Nigeria

Forensic Accounting and Cybercrime: Evidence from Nigerian Banking Industry

Customer Patronage and Petroleum Products Retail Outlets: A Study of Warri and Environs

Environmental and Social Practices as Determinants of Financial Performance of Listed Industrial Goods Firms in Nigeria

Amnesty Programme and the Sustainable Peace and Development of the Niger Delta Region of Nigeria

Financial Regulation, Control and Accountability in the Nigeria's Public Sector (A Case Study of Delta State)

Corporate Governance Attributes and Tax Aggressiveness of Listed Industrial Goods Companies in Nigeria

The Relevance of Environmental Communication and Solutions Journalism in the Quest for Sustainable Environment in Nigeria: The need for a synergy

Beyond Code: Rethinking Front-End Interface Design through Specialised Communication Design Expertise

Artificial Intelligence Integration in Strategic Decision-Making: A Managerial Perspective

Digital Marketing and Consumer Preferences: Focus on Insurance Products Marketing in Nigeria



DELSU JOURNAL OF MANAGEMENT SCIENCES (DELJOMS)
Volume 7, Number 1, June 2025

Publisher:

Faculty of Management Sciences
Delta State University Abraka

© Faculty of Management Sciences, Delta State University, Abraka

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, photocopying, recording, or otherwise without the prior permission in writing from the Publisher.

ISSN: 2756-3731

Printed by:

Precious Prints
Delta State, Abraka, Nigeria

DELSU JOURNAL OF MANAGEMENT SCIENCES (DELJOMS)

ISSN: 2756-3731

EDITORIAL BOARD

Editor-in-Chief

Professor Mukoro Akpomuvire PhD

Editor

Professor Ehiedu, Victor C. PhD

Associate Editors

Professor Olannye A.P.

Professor Okolie A.C.

Professor Jeroh, E. PhD

Professor (Mrs.) Onuorah A.C. PhD

Professor Oditia, A. PhD

Professor Osuji C.C. PhD

Professor Eromafuru E. PhD

Professor Kifordu, A. A. PhD

Professor Taruhror E PhD

Professor Orishede F. PhD

Professor Okereka P. PhD

Professor Odiri V.I. PhD

Professor Osazevbaru H.O.

Editorial Advisory Board

Professor Oboreh, J. S.

Vice-Chancellor

Delta State University of Science and Technology,
Ozoro.

Professor Damaki G.O.

Department of Business Administration,
Faculty of Management Sciences,
Delta State University, Abraka

Professor Yomere, G. O.

College of Petroleum Management,
Federal University of Petroleum, Effurun,
Delta State

Professor Okolie, A. C.

Department of Accounting,
Faculty of Management Sciences,
Delta State University, Abraka

Professor Osazevbaru H.O.

Department of Business Administration,
Faculty of Management Sciences,
Delta State University, Abraka

Professor Orubu, C.O

Faculty of Social Sciences, Delta State
University, Abraka, Delta State.

Professor Nkamnebe A. D

Faculty of Management Sciences, Nnamdi
Azikiwe University, Awka, Anambra State

Professor Hamilton, D.I

Faculty of Management Sciences, Rivers State
University, Port Harcourt, Rivers State

Professor Umoh G.

Faculty of Management Sciences, University
of Port Harcourt, River State

Professor Asaoul T.

Faculty of Administration
Obafemi Awolow University, Ife

Professor Egbon P.C

Faculty of Social Sciences,
Delta State University, Abraka, Delta State

Professor Dabor, L.E.

Faculty of Management Sciences, University of
Benin

DELSU JOURNAL OF MANAGEMENT SCIENCES (DELJOMS)

ISSN: 2756-3731

About the Journal

The Delta Journal of Management Sciences (DELJOMS) is an academic, peer-reviewed journal focused on the dissemination of articles on all aspects of Management and Social Sciences. DELJOMS is published annually. The Journal provides a forum for the exchange of state-of-the-art ideas and information among scholars in Management and Social Sciences and related disciplines. DELJOMS is committed to publishing scholarly empirical and theoretical research articles that have a high impact. More often than not, they shed light on successful Management and Social Sciences strategies and analyze the failures to increase the chances of success in the current organizations nationally and globally because management is a highly intricate art which applies to any given domain such as finance, natural resources, human resources, or technological resources and the scope of journal is very vast.

The mission of DELJOMS is to publish empirical research that tests, extends, or builds on theories and contributes to the advancement of Management practice in our world today. All empirical methods including, but not limited to, qualitative, quantitative, meta-analytic, and mixed methods are welcome. To be published in DELJOMS, the research must make strong empirical and theoretical contributions and the manuscript should highlight the relevance of those contributions to management practice. Authors should strive to produce original, insightful, interesting, important, and theoretically bold research that demonstrates a significant "value-added" contribution to the fields in the understanding of an issue or topic.

The Journal faced some challenges associated with producing quality and standards while ensuring the best global practices with high impact empirical research-based studies. However, we are willing to publish as many articles received that meets standards and quality with cutting edge research gap output. It's also imperative that our reputation is hinged on a resolute commitment to maintaining high academic excellence which is our premium goal. In this edition, we have carefully selected articles to provide the reader with an analytical mind in discerning management issues of relevance. As a journal, we, therefore, advice researchers whose articles could not be published for some structural or procedural defects to revise their work for re-submission because DELJOMS is willing to reassess for future publication were applicable.

Professor A. Mukoro PhD

Editor-in-Chief

Publisher: Faculty of Management Sciences, Delta State University, Abraka.

Call for Papers

The Editorial Board of Delsu Journal of Management Sciences (DELJOMS) welcomes scholarly well-researched articles for consideration on any aspect of Management and Social Sciences and allied disciplines. DELJOMS which is a publication of Faculty of Management Sciences (FMS), Delta State University, Abraka, publishes original and cutting edge articles with relevant and significant contributions to the Management, Social Sciences' and allied disciplines.

DELJOMS provides a forum for discussion and analysis of issues in Management and Social Sciences with the exchange of information between professionals, academics and the global business world. The Journal is committed to the research of the highest quality in adopting the best global practices.

Guide to Contributors

Format for Typed Manuscripts: All typed scripts are required to be formatted as follows:

Cover Page: It should include the title of the article, name(s) of the authors as they want them to appear, the highest educational qualification(s) of the author(s) excluding honorary degrees and the institutional affiliation of the author(s).

Second Page: The page should repeat the title of the articles but should not in any way disclose the names and addresses of the author. It should include the abstract which should not exceed two hundred and fifty words (typed single –spacing in 12 Times New Roman font) and a list of not more than five keywords. The 12 point font size requirement applies to all the headings, subheadings and all other contents.

Main Body: Articles are normally not expected to exceed 20 pages of A4 paper, typewritten in double – line spacing. Sub-headings sections should not be numbered. However, tables, figures, maps and other illustrations should each be numbered and given a title which must be centred. All sub-headings should be justified.

Cited works/References: The prescribed references style is the American Psychological Association (APA) style.

Submission of Manuscripts: Authors who want to submit their articles considered for the bi-annual publication should send three hard copies of the manuscript to the Managing Editor and one virus-free soft copy in Microsoft word format by email to the DELJOMS email: deljoms@deljoms.com.ng, deljoms@gmail.com

Process of Manuscript Review Editorial Check: The Editorial Team of the DELJOMS Journals will make a basic check to ensure that the submitted manuscript falls under the scope of the Journal. If the manuscript is out of the Journal's scope, it will instantly be rejected.

Delsu Journal of Management Sciences (DELJOMS).....

Plagiarism Check: All manuscripts will be checked for plagiarism. DELJOMS Journals will crosscheck to ensure the originality of the paper submitted. Manuscripts containing substantives of plagiarism, dishonesty, or self-plagiarism, will instantly be rejected.

Peer and Blind Review: We use the peer review system. In this process, the author's identification (name, affiliations, email) will remain anonymous. DELJOMS journals adopted this policy to ensure the objectivity of the peer review. The process may take two to four weeks (depending on the editorial board) and will determine the status of the manuscript. If needed, a revision of the submitted paper may be needed, and it is the obligation of the author(s) to revise in accordance.

Acceptance/Rejection: Reviewers will determine whether the quality of the submitted manuscripts exceeds the threshold of publication.

Contact Address

The Editor-in-Chief

Professor A. Mukoro PhD

Dean, Faculty of Management Sciences,
Delta State University, Site 3, Abraka.

Email: deljoms@deljoms.com.ng, deljoms@gmail.com

Tel: +234 8034027624

Volume 7, Number 1, June 2025



Association Between Development Banking And Technical Innovation In Nigeria: An Empirical Analysis

ABDULMAJEED, Tajudeen Idera Ph.D.

Department of Banking and Finance,
University of Abuja, Abuja, Nigeria;
idera4ever@yahoo.com

BABARINDE, Gbenga Festus Ph.D.

ACA, ACIB, ACIPM, FMNES, MCIB, MTRCN

Department of Banking and Finance,
Modibbo Adama University, Yola, Nigeria;
liftedfgb@gmail.com

ABDULLAHI Bashir Muhammed

Department of Banking and Finance,
University of Abuja, Abuja, Nigeria;
bashir.abdullahi@uniabuja.edu.ng

Rukaiya Isa Yahya, Ph.D.

Department of Business Education,
Federal College of Education,
Yola, Nigeria;
rukayyarufai@gmail.com

Publication Date: 2025/06/30

Abstract

Innovations do not occur with spontaneity but involves activities that have cost implications and hence the need for proper funding. The relationship between development banking and innovations, particularly, technical innovations, is still an empirical question. This study empirically explored the relationship between development banking and innovation in Nigeria during the period, 1996-2023. Pearson correlation and covariance tests were applied to the annual time series data obtained from World Development Indicators. In this study, technical innovation is proxy with scientific and technical journal articles, while number of development banks is the proxy for development banking. Empirically, the study found the existence of a strong, positive, and significant relationship between development banking and technical innovation in Nigeria. This implies that, a higher number of development banks is associated with higher volume of technical innovation in Nigeria. It can therefore be concluded that development banking and innovation have are directly related in Nigeria. The study recommends that government should look in the direction of development banks, in order to promote technical innovations in Nigeria and also development banks should also embrace the positive role of technical innovations in their operations.

Keywords: *Correlation, Covariance, Development Banking, Innovation, Finance, Scientific, Technical.*

Introduction

In the contemporary economic landscape, technical innovation has emerged as a pivotal driver of national competitiveness, productivity growth, and sustainable development. Particularly in developing economies, fostering innovation is essential for addressing structural imbalances, enhancing industrial capacity, and achieving inclusive economic transformation (World Bank, 2020). Nigeria, as Africa's largest economy, has recognized the strategic imperative of building a knowledge-based and innovation-driven economy, as reflected in policy frameworks such as the National Digital Economy Policy and Strategy (NDEPS) 2020–2030 (Federal Ministry of Communications and Digital Economy [FMCDE], 2020). Despite these policy initiatives, the country continues to grapple with weak innovation infrastructure, limited research and development (R&D) funding, and low levels of technology adoption across sectors (Oyebanji, et al., 2022).

In recent years, Nigeria has witnessed a surge in technological transformation, particularly in the digital financial services space. Financial technology (fintech) firms and digital platforms are disrupting traditional business models, improving service delivery, and expanding access to financial services (Otonne et al., 2023). However, despite this progress, there remains a significant gap in innovation financing, particularly for early-stage technologies and small and medium-sized enterprises (SMEs). Development banks, by offering concessional loans and risk-tolerant capital, can potentially bridge this gap and stimulate innovation at scale. While studies have explored innovation and access to finance independently (Salihu, 2020; Osisanwo, 2022), few have empirically examined the linkage between development banking and technical innovation in Nigeria. Understanding this relationship is crucial in aligning development financing strategies

with the country's innovation and industrialization goals.

Development banking institutions are considered critical vehicles for financing long-term investments that market-oriented financial institutions often neglect due to risk aversion and short-termism. Globally, development banks have played instrumental roles in supporting industrialization, technological advancement, and entrepreneurial ecosystems by providing patient capital and facilitating strategic investments in research, innovation, and infrastructure (Mazzucato & Penna, 2016; Griffith-Jones & Ocampo, 2018). In the Nigerian context, institutions such as the Bank of Industry (BOI) and the Nigerian Export-Import Bank (NEXIM) have been established to bridge financing gaps in key sectors, including technology-driven enterprises and manufacturing. However, the extent to which these banks have effectively catalyzed technical innovation remains a subject of empirical inquiry.

Development banking has emerged as a cornerstone of long-term economic development strategies in emerging economies, particularly in Nigeria, where financial markets remain underdeveloped and private investment in innovation is relatively low. Development banks such as the Bank of Industry (BOI) and the Nigerian Export-Import Bank (NEXIM) provide tailored financial support to sectors that are often neglected by commercial banks, including agriculture, infrastructure, and manufacturing (Adegbite & Macheche, 2020). These sectors are critical for promoting technical innovation, which is essential for enhancing productivity, competitiveness, and inclusive growth.

The relationship between development banking and innovation in Nigeria is complex and underexplored. While some scholars suggest that development finance institutions (DFIs) have the potential to incentivize innovation through targeted funding and

technical support (Adeniran & Ajakaiye, 2021), others argue that bureaucratic inefficiencies, political interference, and limited institutional capacity undermine the innovation impact of DFIs (Ibrahim & Alabi, 2019). Furthermore, Nigeria's innovation ecosystem is characterized by fragmented coordination among stakeholders, regulatory bottlenecks, and inadequate intellectual property protections (Adeleye & Esan, 2023), all of which may hinder the transmission mechanisms through which development banking influences innovation outcomes. Theoretically, Schumpeterian and endogenous growth models underscore the role of finance in enabling innovation by reducing constraints to investment in human capital and technological capabilities (Aghion et al., 2015).

Despite policy initiatives and substantial public investments in development banking, Nigeria continues to lag behind in innovation outputs, as reflected in its low ranking on the Global Innovation Index (WIPO, 2023). There is insufficient empirical evidence on the extent to which development banking contributes to the generation, adoption, and diffusion of technical innovations in Nigeria's economic landscape. Moreover, challenges such as poor infrastructure, bureaucratic lending processes, limited technical support, and low absorptive capacity among firms hinder the effective utilization of development bank funding for innovative projects (Adeyemo & Obafemi, 2024). The lack of coherent data and systematic evaluation also restricts stakeholders from understanding how effectively development banks support innovation-driven enterprises.

Empirical analyses of the development finance innovation nexus are particularly pertinent in light of Nigeria's quest to diversify its economy away from oil dependence and accelerate industrial development (Osarosee and Laoye, 2025; Famakin et al., 2024; Nwodo et al., 2024;

Ogunkoya et al., 2024; Ndaghu et al., 2023; Obayi et al., 2023; Oyedele, 2022; Okpalaoka et al., 2022; Nwosu et al., 2022; Ejemeyovwi et al., 2021). Within this framework, development banks are positioned as agents of structural change, capable of altering innovation trajectories in sectors deemed strategically important for national development. This study therefore seeks to empirically examine the association between development banking and technical innovation in Nigeria, contributing to the literature by offering evidence-based insights into the role of DFIs in fostering an innovation-led development agenda.

Literature Review

Conceptual Review

Development Banking

Development banks are specialized financial institutions established to provide long-term capital and financial services in sectors that are underfunded by commercial banking systems. Their mandate often extends beyond profit maximization to include social and developmental goals such as industrialization, technological upgrading, infrastructure development, and inclusive economic growth (Griffith-Jones & Ocampo, 2018). As state-owned or publicly-backed institutions, development banks serve as counter-cyclical tools in economic policy, especially during financial downturns, when risk-averse private investors retreat from lending (Crespi et al., 2021). The conceptual foundation of development banking is rooted in structuralist and Schumpeterian economics, which posit that financial markets are inherently imperfect, particularly in developing economies where institutional voids and capital shortages are prevalent (Mazzucato & Penna, 2016). Development banks are thus positioned to correct market failures by offering concessional loans, guarantees, and equity participation in ventures that are essential for national development but unattractive to

private financiers due to perceived risks or long gestation periods (Luna-Martínez & Vicente, 2015).

A key conceptual attribute of development banks is their ability to play both financial and strategic roles. Financially, they provide long-term financing for projects in agriculture, industry, infrastructure, and technology, often with interest rates and repayment terms that are more favorable than those of commercial banks. Strategically, development banks are policy instruments for the state, used to direct capital flows toward sectors identified as priorities for structural transformation and economic diversification (De Luna-Martínez et al., 2023). Development banks are also differentiated by their developmental mandate, which includes goals that go beyond financial returns. These include employment creation, technological spillovers, and capacity building for small and medium enterprises (SMEs). For example, the Bank of Industry (BOI) in Nigeria has adopted various intervention programs targeting the digital economy, creative industries, and green energy technologies, aimed at stimulating innovation and entrepreneurship (BOI, 2022). However, conceptual critiques of development banks often focus on issues of governance, political interference, and inefficiency. Poorly governed development banks may succumb to clientelism, favoring politically connected borrowers and accumulating non-performing loans that undermine their sustainability (Ibrahim & Alabi, 2019). Moreover, without clear performance metrics and strong oversight, development banks risk becoming passive institutions that neither catalyze innovation nor deliver on their developmental mandates (Chandrasekhar, 2020). In recent years, there has been a resurgence of interest in development banking, especially in the context of financing sustainable development goals (SDGs) and post-COVID-19 economic recovery. The global reappraisal of state-led

financing mechanisms highlights the relevance of development banks as facilitators of structural transformation, particularly in low- and middle-income countries where access to affordable finance remains limited (UNCTAD, 2021).

In Nigeria, the conceptual significance of development banks lies in their potential to fill financing gaps in strategic sectors such as manufacturing, agro-processing, and technology-based enterprises. Despite the establishment of various DFIs, including the Development Bank of Nigeria (DBN) and the Nigerian Export-Import Bank (NEXIM), questions persist regarding their effectiveness in driving innovation and industrial competitiveness (Adeleye & Esan, 2023). Hence, a thorough understanding of the conceptual framework surrounding development banks is essential for assessing their developmental impact and for designing reforms that enhance their operational efficiency and developmental outcomes.

Technical Innovation

Technical innovation is broadly defined as the application of new or significantly improved technologies, products, or processes to enhance productivity, competitiveness, and socio-economic outcomes (OECD, 2018). It encompasses both tangible advancements such as machinery, digital tools, and software and intangible elements, including new knowledge, processes, and organizational practices (Archibugi & Filippetti, 2018). In the context of developing economies like Nigeria, technical innovation is critical not only for driving industrial development but also for addressing persistent development challenges such as unemployment, low productivity, and import dependency (Adeleye & Esan, 2023). The conceptualization of technical innovation is rooted in Schumpeterian theory, which emphasizes innovation as a fundamental engine of economic change and growth.

Contemporary frameworks often distinguish between incremental and radical innovations. Incremental innovations involve gradual improvements to existing technologies, while radical innovations introduce entirely new paradigms that transform production and consumption patterns (Dosi & Nelson, 2016). In Nigeria, the bulk of innovation tends to be incremental, driven by necessity entrepreneurship and informal sector adaptations rather than structured R&D (Egbetokun et al., 2017). This reflects broader systemic weaknesses, including underinvestment in R&D, weak linkages between research institutions and industry, and an underdeveloped intellectual property rights (IPR) regime (Oyebanji et al., 2022). Technical innovation is also influenced by the broader national innovation system (NIS) a conceptual framework that captures the institutional and policy environment within which innovation occurs. Effective NIS includes universities, research centers, government agencies, financial institutions, and private firms, all interacting to produce, diffuse, and apply new knowledge (Lundvall, 2016). In Nigeria, however, the innovation ecosystem is fragmented, with weak coordination among actors and limited state capacity to incentivize and regulate innovation activity (Adegbite & Akinwale, 2020). Digital technologies have further expanded the conceptual boundaries of technical innovation. Innovations in information and communication technologies (ICTs), artificial intelligence (AI), and renewable energy systems are increasingly central to economic transformation. The digital economy presents significant opportunities for Nigeria to leapfrog traditional development trajectories, provided that foundational constraints such as broadband access, digital literacy, and regulatory frameworks are effectively addressed (World Bank, 2021).

Importantly, technical innovation is not solely a function of technological input, but also of institutional support and financing mechanisms, such as development banks and public R&D investments. Empirical studies have shown that innovation thrives where financial constraints are minimized and where firms have access to long-term, risk-tolerant capital (Crespi & Zuniga, 2016; Lee, 2020). This highlights the interdependence between innovation and development financing, particularly in contexts where market-based finance is limited or inefficient. In sum, technical innovation is a multidimensional and dynamic concept that intersects with economic policy, institutional development, and financial systems. For Nigeria, the imperative is to strengthen its innovation systems, improve policy coherence, and leverage both public and private financing mechanisms to translate innovation potential into tangible economic outcomes.

Theoretical Review

Schumpeterian Innovation Theory

The theoretical foundation of this study is anchored in Schumpeterian Innovation Theory, originally advanced by Joseph Schumpeter in 1911, in his seminal work *Capitalism, Socialism and Democracy* (1942). Schumpeter conceptualized innovation as the central engine of economic development and postulated that economic progress is driven not by the mere accumulation of capital, but through the “creative destruction” that innovation engenders. In his view, entrepreneurs are the agents of innovation, introducing new combinations of resources such as new products, production methods, markets, or organizational forms that disrupt the equilibrium and generate dynamic economic transformation. The major assumption of Schumpeterian theory is that innovation is both an endogenous and discontinuous process, inherently linked to entrepreneurial activity and institutional

support. It emphasizes that access to finance is a necessary though not sufficient condition for innovation to occur (Schumpeter, 1942). The theory also assumes that innovation emerges in a systemic manner, shaped by structural conditions such as access to capital, institutional frameworks, and policy environments (Aghion et al., 2015). This theoretical position has evolved into a broader Schumpeterian framework that highlights the importance of national innovation systems, public financing mechanisms, and knowledge spillovers in stimulating technical change (Mazzucato & Penna, 2016).

The relevance of Schumpeterian theory to this study is multidimensional. First, it offers a conceptual lens through which the relationship between development banking and technical innovation can be understood. In developing countries like Nigeria, the private sector is often constrained by limited access to affordable long-term capital, inadequate infrastructure, and high innovation risks. These constraints create a financing gap that development banks are institutionally designed to bridge. From a Schumpeterian perspective, development banks can serve as innovation enablers, particularly by financing projects that involve high uncertainty and long gestation periods but hold transformative economic potential (Crespi et al., 2021). Second, Schumpeterian theory highlights the role of state-led financing in correcting market failures associated with innovation, such as underinvestment in R&D, information asymmetry, and externalities. This theoretical orientation aligns with recent empirical research emphasizing the catalytic role of development finance institutions (DFIs) in fostering innovation ecosystems, especially in emerging economies (Luna-Martínez et al., 2023; Griffith-Jones & Ocampo, 2018). Development banks, by offering concessional financing, technical assistance, and risk mitigation instruments, effectively reduce innovation barriers and enhance the

absorptive capacity of firms to adopt and generate new technologies.

Furthermore, the theory underlines the interdependence between financial structures and innovation outcomes, suggesting that the structure of financial institutions and their strategic orientation can significantly influence the innovation trajectory of a country (Lee, 2020). In the Nigerian context, where innovation is often necessity-driven and informally organized, the presence of well-functioning development banks such as the Bank of Industry (BOI) or the Development Bank of Nigeria (DBN) can enhance innovation capabilities by channeling resources to underfunded but high-potential sectors such as manufacturing, ICT, and green energy. In essence, Schumpeterian theory provides a robust explanatory framework for analyzing how institutionalized financial mechanisms, particularly development banking, interact with structural innovation constraints in developing economies. It also supports the core hypothesis of this study: that development banking is positively associated with the advancement of technical innovation in Nigeria, particularly when it is targeted, strategic, and aligned with national innovation objectives.

Financial Intermediation Theory

The Financial Intermediation Theory was initially formalized by Gurley and Shaw (1960) and later expanded by Diamond and Dybvig (1983). It posits that financial institutions act as intermediaries that facilitate the flow of funds from surplus units (savers) to deficit units (borrowers), thereby stimulating investment and economic activity. The theory assumes that intermediaries reduce transaction costs and information asymmetries, thereby increasing the efficiency of resource allocation in the economy. By pooling resources and managing risk, financial intermediaries (e.g., development banks) promote productive investments, particularly

in high-risk but high-return sectors like technology and innovation (Diamond & Dybvig, 1983).

The relevance of this theory to your study lies in the role that development banks play as specialized financial intermediaries. In Nigeria, development banks are expected to bridge financing gaps for sectors that commercial banks might consider too risky particularly technological innovation and startup ventures. Thus, the theory helps explain how effective intermediation by development banks can promote innovation and support national development goals. Recent literature supports this application. For instance, Eze and Uchenna (2023) showed that efficient financial intermediation by development finance institutions led to increased funding of tech-focused SMEs in Nigeria. Likewise, Ibrahim and Lawal (2021) found that development banking significantly contributed to R&D funding in sectors like agriculture and ICT, areas often underserved by private capital.

In conclusion, both Schumpeter's Theory of Innovation and the Financial Intermediation Theory offer rich explanatory frameworks for analyzing the relationship between development banking and technical innovation in Nigeria. While Schumpeter's theory highlights the centrality of innovation in economic development, the intermediation theory underscores how development banks act as catalysts by providing access to capital, thereby enabling innovation to thrive. Integrating these theories provides a holistic lens through which the mechanisms and effectiveness of innovation financing can be empirically examined.

Empirical Review

Osarosee and Laoye (2025) investigated how technopreneurship influences FinTech start-up growth in Nigeria. Using surveys and inferential statistics, it was found that technical innovation and entrepreneurial

acumen significantly enhanced market reach. The study concluded that technopreneurship drives financial inclusion and economic growth. However, the study failed to assess how development banks could finance FinTech innovations.

Famakin et al. (2024) investigated the effect of innovation on the growth of quantity surveying firms in Nigeria. Using a correlational research design, data were collected from 180 firms and analyzed with regression models. Results showed that innovative practices improved productivity and client satisfaction. The conclusion emphasized the strategic value of innovation. However, no analysis of how development banks could support innovation adoption in professional services.

Nwodo et al. (2024) studied the effect of technological capability on the competitive advantage of industrial firms in South-East Nigeria. Surveying 385 staff and using linear regression, they found a strong link between R&D investment and market dominance. It was concluded that innovation capability is key to industrial growth. However, they ignored the enabling role of development banks can fund R&D for competitive advantage.

Ogunkoya et al. (2024) aimed to evaluate how technological innovation affects firm performance in Nigeria Consolidated Breweries. A purposive sampling of 102 respondents was used with descriptive statistical tools. The study reported that technological learning significantly improved operational efficiency. They concluded that innovation enhances organizational competitiveness. However, the research did not analysis on how development banking fosters innovation in the manufacturing sector. Ndaghu et al. (2023) examined the role of technological innovation in boosting agricultural productivity during Nigeria's transition from oil dependency. Using ARDL models, the study revealed that innovation

had a long-run positive impact on agricultural output. The study concluded that innovation is crucial for rural development. However, they omitted how development banks in agriculture-related innovation.

Obayi et al. (2023) assessed how innovations in technology affect vocational and technical education in Nigeria. Using qualitative content analysis, they discovered that digital integration improved student employability and skill development. The authors concluded that innovation reforms are essential for a future-ready workforce. However, the study ignored how development banks could support educational innovation initiatives.

Oyedele (2022) studied the impact of financial innovation on insurance company performance in Nigeria. A sample of 150 senior executives was surveyed, and data were analyzed using structural equation modeling. The findings showed that innovation improved service delivery and customer satisfaction. It concluded that innovation drives performance in the financial sector. The role of development banks in supporting financial innovations in insurance was not discussed.

Okpalaoka et al. (2022) examined the impact of technological innovation capabilities on the performance of manufacturing SMEs in Lagos State. Using a survey research method, data were analyzed through regression analysis. They found that research and development (R&D) capabilities had a significant effect on profitability and market expansion. The study concluded that innovation capabilities are crucial for SME sustainability. However, no link was established between development banking and the provision of innovation resources.

Nwosu et al. (2022) explored the relationship between banking innovation and sustainable development in Nigeria across the pre- and post-COVID periods. Using econometric analysis on CBN data, the study found that mobile and digital banking had a positive

influence on human development indices. The conclusion emphasized that banking innovation is a vital tool for inclusive development. Yet, the study overlooked development banking despite their critical role in innovation funding.

Ejemeyovwi et al. (2021) explored how ICT adoption and innovation influence financial development across Sub-Saharan Africa, including Nigeria. Using panel data econometrics, they observed that innovation had a significant positive effect on financial system growth. The study concluded that innovation policies are essential for digital transformation. However, the study was not specific to Nigeria and omitted the development banking context.

Methodology

The study of the association between development banking and innovation was carried based on ex-post facto research design, hence the use of secondary data in the analysis. The covariance analysis approach was employed in the study with specific techniques of Pearson correlation and covariance. The study, because of the normality of the variables of the study employed two normality-compliant methods of ordinary and ordinary uncentered Pearson correlation and covariance.

The data used are quantitative in nature and annual infrequency and are obtained from the World Bank's World Development Indicators. Innovation was proxied with the Number of scientific and technical journal articles while development banking was measured as the Number of development banks. Data on innovation were obtained from World Development Indicators while Central Bank of Nigeria's Statistical Bulletin was the source of data on development banking.

The covariance analysis was used to obtain different measures of association (covariances and correlations) and associated test statistics for the series in a group. The study computed

the measures of association are ordinary Pearson product moment, ordinary uncentered Pearson product moment, ordinary Pearson

co-variance test, and ordinary uncentered Pearson co-variance test.

Results and Discussion

Descriptive Statistics

Summary Statistics

Table 1 presents the descriptive statistics for the study.

Table 1: Descriptive Statistics

	INNO	DEVB
Mean	3045.716	5.142857
Maximum	7899.950	6.000000
Minimum	884.8300	4.000000
Std. Dev.	2052.578	0.803432
Skewness	0.941242	-0.258250
Kurtosis	2.921451	1.648482
Jarque-Bera	4.141570	2.442269
Probability	0.126087	0.294895
Observations	28	28

Source: Authors' computation using Eviews 10

Common sample descriptive statistics was computed using observations for which there are no missing values in any of the series in the group and the summary as presented in Table 1 reveals that the average scientific and technical journal articles and number of development banks in Nigeria was about 3046 and 5 respectively in the study period. The

minimum and maximum scientific and technical journal articles were roughly 885 and 7900 respectively while that of number of development banks were 4 and 6 respectively. Going by the Jarque-Bera statistics, both variables (innovation and development banking) are normally distributed.

Trend Analysis

Figure 1 presents the trend of the variables of the study.

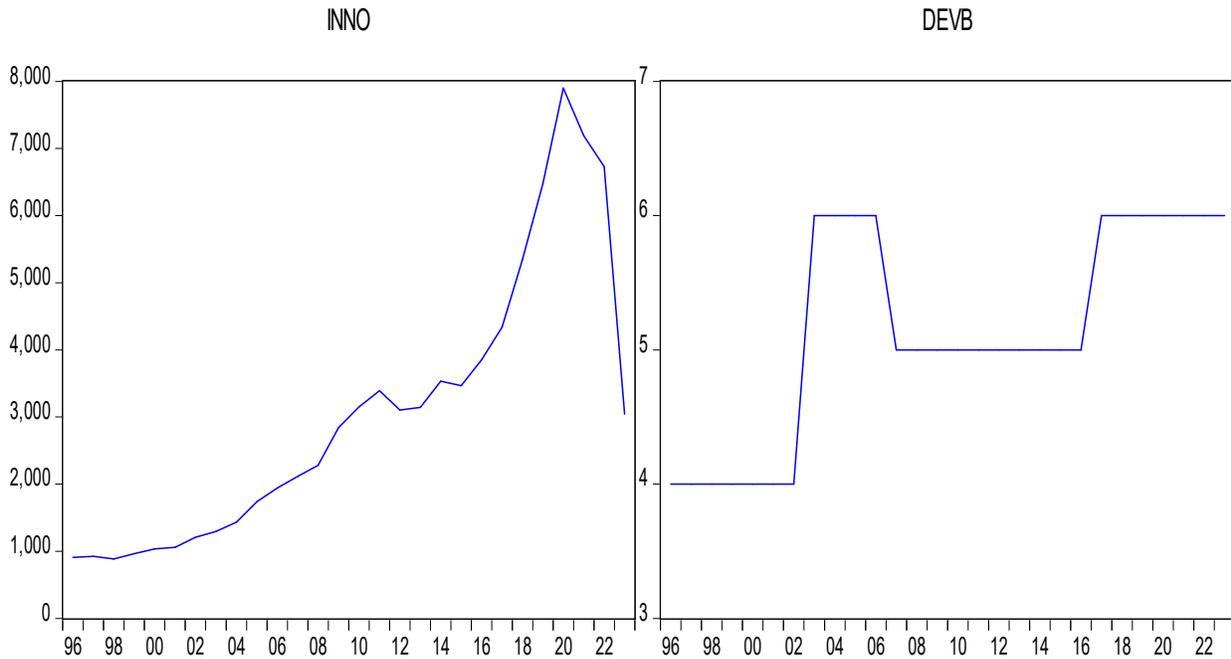


Fig. 1: Trend Analysis of number of scientific and research journals and numbers of development banks in Nigeria from 1996-2023

Source: Authors’ design using Eviews 10

The trend analysis of the variables of the study as presented in Figure 1 shows an upward trend in the number of scientific and technical journals in Nigeria from 1996 to

2020 until after it started nose-diving. However, a zig-zag trend was noticed in the number of development banks in Nigeria in the study period.

Empirical Analysis

Correlation Analysis

Table 2 summarizes the Pearson correlation analysis based on the normality methods of

ordinary and ordinary uncentered methods/approaches.

Table 2: Pearson Correlation Analysis of Development Banking and Innovation in Nigeria

[I]. Ordinary Pearson Moment Correlation			[II]. Ordinary Uncentered Pearson Moment Correlation		
Coefficient	INNO	DEVB	Coefficient	INNO	DEVB
INNO	1.000000		INNO	1.000000	
	-----			-----	
DEVB	0.634592*	1.000000	DEVB	0.877388*	1.000000
	[0.0003]	-----		[0.0000]	-----

Note: Values in [] are probabilities; * denotes statistically significant at 1% since p-value is less than 0.01

Source: Authors’ computation using Eviews 10

In the ordinary Pearson correlation analysis of development banking and innovation in Nigeria in Table 2(Panel I), it can be seen that the development banking is positively correlated (0.634592) and statistically significant ($p < 0.01$) in its relationship with innovation. Likewise, the ordinary uncentered Pearson ordinary correlation analysis in Table

2 (Panel II), development banking has positive (0.877388) and significant ($p < 0.01$) correlation with innovation in Nigeria.

Covariance Analysis

Table 3 summarizes the Pearson co-variance analysis based on the normality methods of ordinary and ordinary uncentered approaches.

Table 3: Pearson Covariance Analysis of Development Banking and Innovation in Nigeria
Covariance Analysis of development banking and innovation in Nigeria

Pearson Covariance Ordinary			Pearson Covariance Ordinary uncentered		
	INNO	DEVB	Probability	INNO	DEVB
INNO	4062608.		INNO	13338992	
	-----			-----	
DEVB	1009.134	0.622449	DEVB	16672.81	27.07143
	[0.0003]	-----		[0.0000]	-----

Note: Note: Values in [] are probabilities; * denotes statistically significant at 1% since p-value is less than 0.01

Source: Authors' computation using Eviews 10

In the ordinary Pearson co-variance analysis of development banking and innovation in Nigeria as reported in Table 3(Panel I), development banking has a positive covariance (1009.134) with innovation and is also statistically significant ($P < 0.01$). In the same vein, Pearson ordinary uncentered covariance analyses in Panel II of Table 3 indicate there is a positive covariance (16672.81) between development banking and innovation and this is statistically significant different from zero at 1% level of significance.

Discussion of Findings

In the study of the association between developmental banking and innovation in Nigeria based on covariance analyses, the study established the existence of a positive relationship between development banking and innovation in Nigeria. Specifically, the Pearson ordinary correlation test reveals a weak ($r < 50\%$) association between development banking and innovation but a very strong correlation between the two was

established in the Pearson ordinary uncentered correlation analysis. Since in both cases, the relationship was found to be statistically significant and positive, then it can be said that there is direct link between development banking and innovation in Nigeria. **By this finding, the null hypothesis of no significant relationship between development banking and innovation in Nigeria, is rejected in this study.** The alternative hypothesis that there is significant relationship between development banking and innovation in Nigeria, is upheld.

Conclusion and Recommendations

This study empirically explored the relationship between development banking and innovation in Nigeria during the period, 1996-2023 using Pearson correlation and covariance tests. The study established the existence of a positive relationship between development banking and innovation in Nigeria. Specifically, the Pearson correlation analysis (ordinary and ordinary uncentered) reveal a strong association between development banking and innovation. Since in

both cases, the relationship was found to be statistically significant and positive, then it can be said that there is positive relationship between development banking and innovation in Nigeria. Thus, to improve, innovation,

particularly as it relates to the publication of scientific research journal articles, development banking is key.

consequences on innovation.
Technological Forecasting and Social

Change, 127, 97–111.
<https://doi.org/10.1016/j.techfore.2017.05.022>

Bank of Industry (BOI). (2022). *Annual report and financial statements*.
<https://www.boi.ng/publications/>

Chandrasekhar, C. P. (2020). Development banks and industrial finance: The challenges of sustainability and accountability. *Journal of Development Studies*, 56(3), 421–437.
<https://doi.org/10.1080/00220388.2019.1606225>

Crespi, G., & Zuniga, P. (2016). Innovation and productivity: Evidence from six Latin American countries. *World Development*, 73, 234–247.
<https://doi.org/10.1016/j.worlddev.2015.06.013>

Crespi, G., Maffioli, A., & Soares, L. (2021). The role of development banks in promoting innovation: A review of empirical evidence. *Research Policy*, 50(6), 104263.
<https://doi.org/10.1016/j.respol.2021.104263>

De Luna-Martínez, J., Vicente, C., & Powell, J. (2023). Development banks: Performance, governance, and impact. *World Bank Policy Research Working Paper*, No. 10452.
<https://documents.worldbank.org>

Diamond, D. W., & Dybvig, P. H. (1983). Bank runs, deposit insurance, and liquidity. *Journal of Political Economy*, 91(3), 401–419.
<https://doi.org/10.1086/261155>

Dosi, G., & Nelson, R. R. (2016). Technological paradigms and

References

Adeleye, N., & Esan, O. (2023). Innovation ecosystems and the challenges of industrial transformation in Nigeria. *African Journal of Science, Technology, Innovation and Development*, 15(1), 34–46.
<https://doi.org/10.1080/20421338.2022.2054919>

Adegbite, S. A., & Akinwale, Y. O. (2020). Innovation policy frameworks and performance of science, technology, and innovation in Nigeria. *African Journal of Science, Technology, Innovation and Development*, 12(6), 657–666.
<https://doi.org/10.1080/20421338.2020.1733075>

Adeniran, A. I., & Ajakaiye, O. (2021). Financing innovation for sustainable development in Nigeria: The role of development finance institutions. *Journal of Development Perspectives*, 17(2), 45–62.

Adeyemo, K., & Obafemi, F. J. (2024). A survey on the role of technological innovation in Nigerian deposit money bank fraud prevention. *South Asian Journal of Social Studies and Economics*, 21(3), 133–150.
<https://doi.org/10.9734/sajsse/2024/v21i3790>

Aghion, P., Akcigit, U., & Howitt, P. (2015). What do we learn from Schumpeterian growth theory? *Handbook of Economic Growth*, 2, 515–563.
<https://doi.org/10.1016/B978-0-444-53540-5.00004-7>

Archibugi, D., & Filippetti, A. (2018). The retreat of public research and its adverse

- technological trajectories. In B. H. Hall & N. Rosenberg (Eds.), *Handbook of the Economics of Innovation* (pp. 125–142). Elsevier.
- Egbetokun, A. A., Lorenz, E., & Simoes, M. (2017). Innovation modes and firm performance in developing countries: Evidence from Nigeria. *Journal of Development Studies*, 53(6), 916–930. <https://doi.org/10.1080/00220388.2016.1208178>
- Ejemeyovwi, J. O., Osabuohien, E. S. C., & Adama, I. J. (2021). ICT adoption, innovation and financial development in Sub-Saharan Africa. *African Journal of Science, Technology, Innovation and Development*, 13(1), 141–151. <https://doi.org/10.1080/20421338.2020.1851124>
- Eze, C. J., & Uchenna, A. D. (2023). Financial intermediation and innovation financing in Nigerian development banks. *Journal of Financial Innovation in Emerging Markets*, 11(2), 88–104.
- Famakin, I. O., Ajayi, O. M., & Omoniyi, S. (2024). Innovation and growth of quantity surveying firms in Nigeria. *Journal of Engineering, Design and Technology*, 22(1), 134–150. <https://doi.org/10.1108/JEDT-01-2022-0016>
- Federal Ministry of Communications and Digital Economy. (2020). *National Digital Economy Policy and Strategy (2020–2030)*. <https://www.commtech.gov.ng/>
- Griffith-Jones, S., & Ocampo, J. A. (2018). *The future of national development banks*. Oxford University Press.
- Gurley, J. G., & Shaw, E. S. (1960). *Money in a theory of finance*. Brookings Institution.
- Ibrahim, M. A., & Lawal, T. M. (2021). Development banking and innovation support in Nigeria: A sectoral analysis. *Nigerian Journal of Economic Policy*, 28(1), 32–47.
- Ibrahim, M., & Alabi, R. (2019). Development finance and innovation outcomes in Nigeria: Challenges and policy recommendations. *Nigerian Journal of Economic Policy*, 26(1), 85–104.
- Lee, K. (2020). *The art of economic catch-up: Barriers, detours and leapfrogging in innovation systems*. Cambridge University Press. <https://doi.org/10.1017/9781108680055>
- Luna-Martínez, J., & Vicente, C. L. (2015). Global survey of development banks. *World Bank Policy Research Working Paper*, No. 5969. <https://doi.org/10.1596/1813-9450-5969>
- Luna-Martínez, J., Vicente, C., & Powell, J. (2023). Development banks: Performance, governance, and impact. *World Bank Policy Research Working Paper*, No. 10452. <https://documents.worldbank.org>
- Lundvall, B. A. (2016). *National systems of innovation: Toward a theory of innovation and interactive learning* (2nd ed.). Anthem Press.
- Mazzucato, M., & Penna, C. C. R. (2016). Beyond market failures: The market creating roles of state investment banks. *Journal of Economic Policy Reform*, 19(4), 305–326. <https://doi.org/10.1080/17487870.2016.1216416>
- Mazzucato, M., & Penna, C. C. R. (2016). Beyond market failures: The market-creating roles of state investment banks. *Journal of Economic Policy Reform*, 19(4), 305–326. <https://doi.org/10.1080/17487870.2016.1216416>
- Ndaghu, A. A., Usman, M., & Audu, R. (2023). Technological innovation and agricultural productivity in Nigeria. *Economies*, 11(9), 253. <https://doi.org/10.3390/economies11090253>

- Nwodo, O. M., Okorie, E., & Ajaero, B. (2024). Impact of technological capability on competitive advantage in Nigeria's industrial sector. *International Journal of Research and Innovation in Social Science*, 8(3), 97–104.
- Nwosu, H. E., Ojo, O., & Udeorah, S. (2022). Nexus between banking innovation and sustainable development in Nigeria: Pre and post-COVID analysis. *West African Journal of Industrial and Academic Research*, 24(1), 73–84.
- Obayi, P. M., Nwankwo, C. A., & Ajoku, C. E. (2023). Innovation and vocational education transformation in Nigeria. *Journal of Policy and Social Advancement*, 3(2), 45–57.
- OECD. (2018). *Oslo Manual 2018: Guidelines for collecting, reporting and using data on innovation* (4th ed.). OECD Publishing. <https://doi.org/10.1787/9789264304604-en>
- Ogunkoya, O. A., Ogunleye, O. S., & Ajayi, S. A. (2024). Technological innovation and firm performance: A case of Nigeria Consolidated Breweries. *Modern Management Review*, 29(1), 65–79.
- Okpalaoka, E. M., Ogundele, O. J. K., & Adegbite, S. A. (2022). Technological innovation capabilities and the performance of manufacturing SMEs in Nigeria. *F1000Research*, 11, 256. <https://doi.org/10.12688/f1000research.108193.1>
- Osarosee, D., & Laoye, D. O. (2025). Technopreneurship and enabling growth of FinTech start-ups in Nigeria. *International Journal of Research and Innovation in Social Science*, 9(4), 211–220.
- Osisanwo, A. J. (2022). *Technology integration and financial performance of selected deposit money banks in Nigeria* [Master's thesis, Lead City University]. Lead City University Repository. <https://repository.lcu.edu.ng/items/085825b6-289f-4435-9e99-42018e8c550b>
- Otonne, A., Melikam, W., & Ige, O. T. (2023). Adoption of financial technology and performance of deposit money banks in Nigeria. *Futurity Economics & Law*. <https://doi.org/10.57125/FEL.2023.06.25.07>
- Oyebanji, A. O., Akintoye, V. A., & Olamide, A. (2022). Assessing Nigeria's innovation capacity in a digital era: Institutional and policy constraints. *Innovation and Development in Africa*, 10(3), 211–230. <https://doi.org/10.1080/2157930X.2022.2099874>
- Oyebanji, A. O., Akintoye, V. A., & Olamide, A. (2022). Assessing Nigeria's innovation capacity in a digital era: Institutional and policy constraints. *Innovation and Development in Africa*, 10(3), 211–230. <https://doi.org/10.1080/2157930X.2022.2099874>
- Oyedele, A. O. (2022). Financial innovation and performance of Nigerian insurance companies. *Management and Accounting Journal of the Faculty of Management Sciences*, 5(1), 51–63.
- Salihu, A. (2020). Technology innovation in the Nigerian banking system: Prospects and challenges. *Rajagiri Management Journal*. <https://doi.org/10.1108/RAMJ-05-2020-0018>
- Schumpeter, J. A. (1942). *Capitalism, socialism and democracy*. Harper & Brothers.
- UNCTAD. (2021). *Role of development banks in financing the SDGs*. United Nations Conference on Trade and Development. <https://unctad.org/webflyer/role-development-banks-financing-sdgs>
- World Bank. (2020). *World development report 2020: Trading for development in the age of global value chains*. <https://www.worldbank.org/en/publication/wdr2020>

World Bank. (2021). *Digital economy for Africa initiative: 2021 annual report*. <https://www.worldbank.org/en/programs/all-africa-digital-economy>

World Intellectual Property Organization (WIPO). (2023). *Global Innovation Index 2023*. https://www.wipo.int/global_innovation_index/en/



Cybersecurity and Firm Performance: Bridging the Gap between Protection and Profitability

Monye-Emina, Henry Emife¹ and Origho Victor Fegor²

¹Department of Accounting,
University of Benin, Benin-City, Edo State, Nigeria.

henry.monye-emina@uniben.edu

²Department of Accounting,
Dennis Osadebey University,
Asaba, Delta State, Nigeria.

origho.victor@dou.edu.ng

Publication Date: 2025/06/30

Abstract

In an increasingly digital economy, cybersecurity has transitioned from a mere information technology concern to a critical component of organisational strategy. This paper conceptually explores the relationship between cybersecurity practices and firm performance. It argues that robust cybersecurity strategies not only mitigate risks but also contribute positively to business outcomes, enhancing consumer confidence, ensuring operational continuity, and promoting competitive advantage. Key themes discussed include the concept of cybersecurity, Cybersecurity as a driver of strategic advantage, Governance and regulatory impacts, we also consider the various cybersecurity framework and lastly conclusion and recommendations. This paper aims to help practitioners and scholars understand the multifaceted impact of cybersecurity on organisational efficacy.

Keywords: *Cybersecurity, Governance, vulnerabilities, strategic advantage, operational viability.*

Introduction

The digital transformation of businesses has unlocked new opportunities for growth and efficiency, but it has also ushered in a wave of cyber threats that pose significant risks to organisations. High-profile security breaches have demonstrated the vulnerabilities underlying even the most seemingly secure infrastructures, leading to increased scrutiny from stakeholders regarding firms' cybersecurity measures. As organisations grapple with these challenges, the question arises: how does cybersecurity influence firm performance.

In today's hyper-connected world, businesses face unprecedented opportunities and challenges stemming from rapid technological advancements. The proliferation of digital platforms, cloud computing has revolutionized how organisations operate, providing avenues for innovation, efficiency, and customer engagement. However, this digital transformation has also exposed firms to a complex and evolving landscape of cyber threats (Saeed, et al., 2023). High-profile data breaches, ransomware attacks, and other malicious cyber activities have become alarmingly commonplace, with statistics indicating that cybercrime costs the global economy trillions of dollars annually (Gordon, et al., (2018). Against this backdrop, the imperative for effective cybersecurity practices has never been more pressing. Stakeholders, including customers, investors, regulators, and employees, are increasingly aware of the potential repercussions of inadequate cybersecurity measures. Acknowledging this reality, firms must navigate a dual challenge: addressing the barrage of cyber threats while simultaneously leveraging cybersecurity as a strategic asset that can enhance overall performance.

This study posits that cybersecurity is not just a shield against potential threats but also a catalyst for firm performance. By examining the nuanced interplay between cybersecurity

practices and organisational success, we aim to provide a comprehensive framework that elucidates how sound cybersecurity investments can yield significant returns. Evidence suggests that firms prioritizing cybersecurity can foster greater customer trust, ensure uninterrupted service delivery, and differentiate themselves in competitive markets. Moreover, as regulatory scrutiny intensifies, compliance with cybersecurity standards becomes increasingly intertwined with firm reputation and operational viability (Saeed, et al., 2023).

Literature Review

Concept of Cybersecurity in Organisations

The defence of internet-connected devices and services against malevolent attacks by hackers, spammers, and cybercriminals is known as cybersecurity. This approach is used by businesses to guard against identity theft, ransomware attacks, phishing tactics, data breaches, and financial losses. Cybersecurity also refers to any technologies, practices and policies for preventing cyberattacks or mitigating their impact (Lopatova, 2021). The goal of cybersecurity is to defend against ransomware, other malware, phishing scams, data theft, and other cyberthreats by safeguarding computer systems, apps, devices, data, financial assets, and individuals. Cybersecurity is a crucial part of an organization's entire risk management plan at the corporate level. Cybersecurity Ventures predicts that between 2021 and 2025, global spending on cybersecurity goods and services would surpass USD 1.75 trillion. Job growth in cybersecurity is also strong. The US Bureau of Labor Statistics projects that "employment of information security analysts is projected to grow 32% from 2022 to 2032, faster than the average for all occupations (Saeed, et al., 2023). Because cyberattacks and cybercrime have the potential to disrupt, harm, or even destroy communities, businesses, and

individuals, cybersecurity is crucial. Successful cyberattacks lead to identity theft, personal and corporate extortion, loss of sensitive information and business-critical data, temporary business outages, lost business and lost customers and, in some cases, business closures (Berry, et al., 2018). Cyberattacks have an enormous and growing impact on businesses and the economy. By one estimate, cybercrime will cost the world economy USD 10.5 trillion per year by 2025. The cost of cyberattacks continues to rise as cybercriminals become more sophisticated.

Cybersecurity as a Driver of Strategic Advantage

Cyber security is now a key differentiator in a world that is becoming more interconnected; it is no longer merely a question of risk management. To succeed in the market, information security must be utilized as a strategic instrument. The majority of leaders consider cybersecurity to be a means of thwarting threats. But in today's intensely competitive digital economy they should be thinking about cybersecurity as a strategic advantage that not only protects business value, but enables new business value (Castillo, et al., 2018). It is not unexpected that dangers are the main emphasis in order to preserve company value. In today's ever-changing threat landscape, modern digital firms transcend conventional boundaries and give rise to new attack vectors. Companies are dealing with a surge of cybercrime that is getting more sophisticated and intense. According to a recent article in Forbes, "Corporate and home computers have been hit with an average of 4,000 ransomware attacks every day this year, a 300% increase over 2015," citing United States Department of Justice sources (Saeed, et al., 2023). The greatest chance for growth will arise when we make cybersecurity a key element of our digital plans, even while we still need to work hard to safeguard important data and assets.

The fact that cybersecurity flaws stifle innovation is one of its main drawbacks. Indeed, according to a Cisco poll, 71% of participants stated that cybersecurity threats and risks impede organizational innovation. Organisations that have any doubt about their cybersecurity capabilities delay important digital initiatives and risk falling behind competitors (Saeed, et al., 2023).

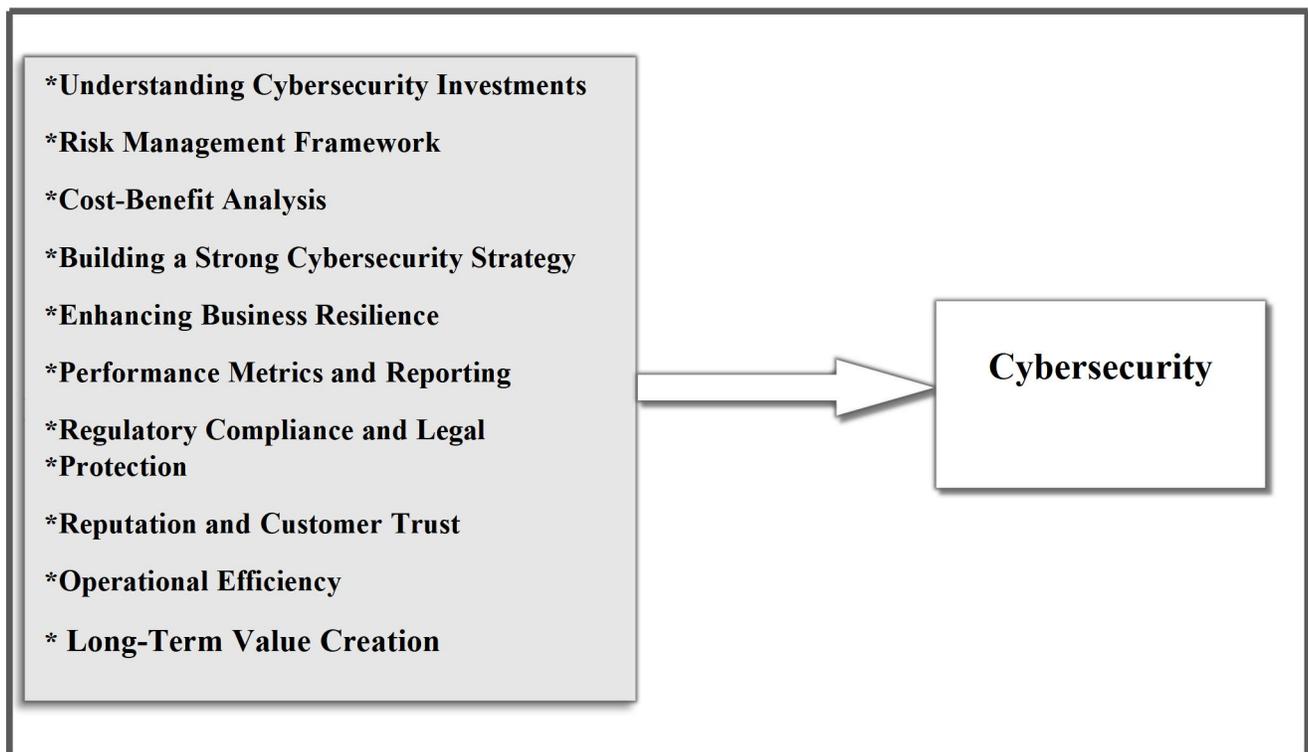
Governance and Regulatory Impacts

Safeguarding sensitive data within your organization and preserving stakeholder trust depend on effective cyber security governance. Legal liabilities, financial losses, and harm to one's reputation can all arise from poor governance. Lebogang, Tabona, and Maupong (2022) evaluated national cybersecurity strategies across Africa, highlighting Nigeria's initiatives as part of a broader continental effort to secure cyberspace. In line with this, Ikuero (2022) detailed the Nigerian government's establishment of a national Computer Emergency Response Team (CERT), Sectoral Computer Security Incident Response Teams (CSIRTs), and the formulation of the National Cybersecurity Policy and Strategy (NCPS) through the Office of the National Security Adviser (ONSA), aiming to enhance cybersecurity coordination within the country. Despite these efforts, Nte, Enoke, and Teru (2022) identified weaknesses in Nigeria's cyber laws and policies, noting the national documents, while comprehensive in some areas, failed to address all aspects of cyber security concerns. The banking sector, as a critical component of Nigeria's economy, has adopted key strategies to bolster cybersecurity defences against escalating cyber threats. According to Reis, Oliha, Osasona, and Obi (2024), Nigerian banks are battling threats like ransomware, phishing, and insider assaults by using advanced security technologies, training their employees, and working with international cybersecurity

organizations and the government. Additionally, the digital economy's growth in Nigeria necessitates robust cybersecurity measures due to increased cyber-attack risks (Ukwuoma, Williams, & Choji, 2022). The rise of cybercrime on social media has prompted research into common scams, tactics used by cybercriminals, and recommendations for enhancing cybersecurity awareness and protective measures (Damilolo, Emmanuel, & Ngoc, 2023). Furthermore, the study by Garba, Siraj, and Othman (2022) focused on assessing cybersecurity awareness among university students in Northeastern Nigeria, indicating a need for comprehensive education on various cybersecurity aspects. International perspectives on cybersecurity strategies provide useful insights for Nigeria.

Sabillon (2022.) discussed phases in unifying national cybersecurity strategy models, emphasizing the importance of developing international strategies, alliances, and cooperation. Similarly, cybersecurity strategies for SMEs in the Nordic Baltic Region, focusing on awareness, training, and financial incentives (Falch et al., 2023), offer potential lessons for Nigerian enterprises. Cybersecurity in Nigeria faces challenges including legal and policy gaps, threat evolution, and the need for greater awareness and education. Strengthening Nigeria's cybersecurity infrastructure requires a multifaceted approach encompassing policy reform, technological advancements, international cooperation, and comprehensive education and training programs.

Cybersecurity Framework



Investing in cybersecurity is vital for organisations in today's digital landscape. A comprehensive framework that elucidates how sound cybersecurity investments can

yield significant returns involves several key components of which understanding cybersecurity investments should be the first step. These may include software solutions

(firewalls, intrusion detection systems), hardware (secure servers), personnel training, compliance programs, and incident response planning. These can be of great benefits to the organisation through prevention of data breaches and associated costs, and can also involve enhanced brand reputation and customer trust.

Risk management framework can be achieved through assess the specific cybersecurity risks to the organisation, including the potential impact of data breaches, financial loss, and reputational damage and organisations are to regularly conduct assessments to evaluate vulnerabilities and potential threats to inform investment decisions. On another hand, cost-benefit analysis should also help to calculate the costs associated with investing in cybersecurity technologies, staff training, and policies and can help reduced likelihood of data breaches, lower recovery costs, and avoidance of regulatory fines.

Organisations are also advised to building a strong cybersecurity strategy to establish clear cybersecurity policies and procedures that align with business objectives and compliance requirements and should focus on high-impact areas, such as data protection, network security, and employee training, to maximize the return on investment. Enhancing business resilience to develop and regularly update an incident response plan to minimize damage during a cyber event, thereby protecting assets and maintaining operations.

Business continuity planning is another key framework of cybersecurity that ensure that business operations can continue or quickly recover after a cybersecurity incident, further supporting operational resilience. Performance metrics and reporting help to gauge the effectiveness of cybersecurity investments (e.g., number of incidents detected, time to respond). Regulatory compliance and legal protection help ensure compliance with laws and regulations, and also avoiding legal penalties. Reputation and

Customer Trust here strong cybersecurity measures can enhance consumer confidence, leading to increased customer loyalty, retention, and acquisition. Organisations known for robust cybersecurity practices can differentiate themselves in the marketplace. Operational Efficiency can lead to greater efficiency in operations by automating monitoring and response processes thereby reducing the risk of cyber incidents minimizes disruptions, allowing employees to focus on their core tasks.

The final stage of the framework can lead any organisation to long-term value creation. Consider cybersecurity as a long-term investment in organisational resilience and sustainability, ultimately contributing to growth and profitability. A strong cybersecurity posture allows businesses to innovate and explore new technologies without the fear of exposing sensitive data. A well-structured approach to cybersecurity investment not only protects against risks but also drives significant financial and strategic returns. Organisations can unlock value through improved resilience, enhanced reputation, regulatory compliance, and operational efficiencies, ultimately leading to better overall performance and competitive advantage in the market.

Review of Related Theories

The relationship between cybersecurity and firm performance is increasingly recognized in both academic literature and practical business applications. Theoretical frameworks help to understand how investments in cybersecurity can influence overall firm performance. Here are some key theoretical bases that support this relationship.

Resource-Based View. The RBV posits that firms possess unique resources and capabilities that can provide a competitive advantage. Cybersecurity measures, such as advanced technologies and skilled personnel,

can be viewed as strategic resources. Firms that effectively leverage these resources may not only protect themselves from cyber threats but also enhance their reputation, customer trust, and ultimately their financial performance.

The Resource-Based View (RBV) of the firm plays a significant role in understanding the relationship between cybersecurity and firm performance. According to RBV, firms that possess unique resources and capabilities can achieve a competitive advantage. In the context of cybersecurity, this includes not only technological assets (like firewalls, intrusion detection systems, etc.) but also human resources (such as skilled cybersecurity professionals) and organisational processes related to risk management and incident response (Dornheim, et al., 2023).

Moreso, effective cybersecurity measures can serve as a differentiator in the market. Firms that are perceived as having strong cybersecurity practices may attract more customers and partners, leading to enhanced market positioning and reputation. This competitive edge can positively influence firm performance through increased sales, customer loyalty, and reduced risk of financial loss from cyber incidents. Cybersecurity is essential for safeguarding valuable intangible assets such as customer data, intellectual property, and brand reputation. The ability to protect these assets effectively helps maintain operational continuity and reduces potential costs associated with data breaches and cyber threats (Amar, 2016). Investing in cybersecurity can lead to long-term cost savings by minimizing the risk of cyberattacks, which can be expensive in terms of both direct losses and reputational damage. By proactively managing cybersecurity risks, firms can avoid significant expenditures that would arise from breaches, thus enhancing overall financial performance. Firms that prioritize cybersecurity are often better

positioned to innovate and adopt new technologies. By ensuring a secure environment for digital operations, they can explore opportunities in e-commerce, cloud computing, and digital transformation without compromising security, thereby contributing to sustained performance improvements. Resource-Based View emphasizes that effective cybersecurity is not just a defensive measure but a strategic asset that can enhance firm performance by creating competitive advantages, protecting valuable resources, and enabling innovation. Firms that invest in and cultivate strong cybersecurity capabilities are likely to see improvements in their overall performance (Koniagina, et al.,2023).

Theory of Planned behaviour: According to TPB, attitudes, perceived behavioural control, and subjective norms all have an impact on an individual's behaviour. Organisational culture and employee behaviour towards cybersecurity can impact a firm's security posture. A positive attitude towards cybersecurity, reinforced by training and leadership support, can lead to better security practices, reducing vulnerabilities and enhancing firm performance. The A helpful framework for comprehending how attitudes, subjective standards, and perceived behavioural control affect people's intentions and behaviours—including those pertaining to cybersecurity in businesses—is offered by the Theory of Planned behaviour (TPB). Employees and management are more inclined to take proactive steps, such following security procedures or attending training sessions, when they believe cybersecurity is important and advantageous.

A positive attitude can lead to a culture of security awareness, enhancing overall firm performance by reducing vulnerabilities (Koniagina, et al.,2023). The behaviour of colleagues and leadership can significantly impact individuals' actions regarding cybersecurity. If there is a strong cultural

norm that emphasizes the importance of cybersecurity, employees are more likely to comply with security measures.

This collective approach can lead to improved firm performance as a result of reduced risk exposure. Employees' perceptions of their ability to implement cybersecurity measures (perceived behavioural control) can influence their actual behaviour. If employees feel empowered and equipped with the necessary resources and training to manage cybersecurity practices, they are more likely to act in ways that support firm performance, such as reporting incidents, following protocols, or adopting secure practices (Gordon, et al., 2018) According to TPB, intentions are the most immediate predictor of actual behaviour. If employees intend to adopt cybersecurity best practices due to favorable attitudes, supportive norms, and a sense of control, it can lead to better security outcomes, thereby enhancing overall firm performance. Firms that embed cybersecurity into their organisational culture and encourage positive behaviours through training and leadership support will likely see long-term improvements in performance. Enhanced cybersecurity can lead to reduced incidents of data breaches, lower compliance costs, and improved customer trust—all contributing to better financial performance and competitive advantage. Theory of Planned behaviour suggests that fostering positive attitudes towards cybersecurity, establishing supportive norms, and enhancing employees' perceived control can significantly influence intentional behaviours that ultimately affect firm performance (Castillo & Falzon, 2018).

Innovation and Technology Adoption Theories: These theories examine how organisations adopt new technologies and the innovation process. Firms that adopt cutting-edge cybersecurity technologies may not only mitigate risks but also gain operational efficiencies and reduce costs, contributing to

improved performance through innovation. According to Amar (2016), the relationship between cybersecurity and firm performance can also be examined through the lens of innovation and technology adoption theories. This theory explores how new technologies, including cybersecurity solutions, spread within organisations. Businesses are frequently better able to safeguard their assets when they successfully use cutting-edge cybersecurity solutions (such as firewalls, intrusion detection systems, and encryption). Successful adoption can enhance firm performance by mitigating risks associated with cyber threats and improving overall operational efficiency (Castillo & Falzon, 2018). TAM highlights how crucial perceived utility and ease of use are to the uptake of new technology. If employees find cybersecurity tools user-friendly and useful in their daily activities, they are more likely to adopt them. Higher adoption rates can lead to stronger security measures, which ultimately support better firm performance by reducing the likelihood of security breaches.

Incorporating advanced cybersecurity measures can lead to innovative business models and practices (Brock & Levy, 2013). For instance, firms that offer enhanced security features may differentiate themselves from competitors, thereby attracting more customers and increasing market share, ultimately contributing to better performance. Innovation and technology adoption theories suggest that there is a positive relationship between effective cybersecurity measures and firm performance. By embracing and properly implementing innovative cybersecurity solutions, firms can not only protect their assets but also enhance their overall competitiveness and operational efficiency in the market. The interplay between cybersecurity and firm performance is multifaceted and can be understood through various theoretical lenses. As businesses increasingly operate within digital

environments, recognizing the importance of cybersecurity investments not only helps in risk mitigation but also supports overall strategic objectives and enhances competitive advantage (Brock & Levy, 2013). In summary, effective cybersecurity practices contribute positively to firm performance by protecting assets, fostering stakeholder trust, and enabling innovation.

Conclusion and Recommendations

According to the study's findings, Nigeria has acknowledged the significance of cybersecurity since enacting the Cybersecurity Act 2015 in response to the recent rise in cybercrimes in the nation. The work made a theoretical contribution to the academic literature. The study provided data on Nigerian internet and mobile subscribers as well as the nation's digital online activity. It presented informants' scholarly opinions on how cybercrimes affect Nigeria's digital economy and national security. Theoretically, the study was successful in establishing a relationship between the growing empirical data from the field of study and the numerous existing claims regarding cybersecurity and national security issues. In order to avoid

cybercrimes in Nigeria, the study also has policy implications for the introduction of specific cybersecurity regulatory ideas. The following is a list of the suggestions: The public should be made aware of the necessity of preventing the online disclosure of security codes and other important information by the government and other organizations in charge of ICT regulations; People should be encouraged to notify the organizations in charge of managing cybersecurity policies about any questionable transactions; To make it easier to identify threats, experts should be hired to teach current employees in the appropriate agencies cybersecurity technicalities; Quarterly workshops and media campaigns should be held to inform the public, businesses, and government organizations on the mechanisms of cybercrime and how to take precautions; In order to discourage future criminal activity, those found guilty of cybercrime should face harsh penalties under the Cybersecurity Act of 2015. To facilitate the identification of suspicious calls and transactions, a databank for mobile phones and internet users should be established. This will allow thieves to be caught as soon as they launch an attack.

References

- Alexander, G. (2017), The Flame: Questions and Answers, Kaspersky Labs, Kaspersky Labs. Available from: <https://www.securelist.com/34344/the-flame-questions-and-answers-51>. Retrieved on 2024 Aug 08.
- Amar, S. (2016), Spectre of cyberterrorism: A potential threat to India's national security. *Indian Journal of Research*, 5(3), 1-16.
- Anand, K., Krishnan, P., Devendra, K.P. (2014), Facing the reality of cyber threats in the power sector. *Energy Policy*, 65, 126-133.
- Berry, C. T., & Berry, R. L. (2018). An initial assessment of small business risk management approaches for Cyber Security threats. *International Journal of Business Continuity and Risk Management*, 8(1), 1-10. <https://doi.org/10.1504/IJBCRM.2018.090580>
- Bose, R., & Luo, X. R. (2014). Investigating security investment impact on firm performance *International Journal of Accounting & Information Management*, 22(3), 19-208. <https://doi.org/10.1108/IJAIM-04-2014-0026>

- Brock, L., & Levy, Y. (2013). The market value of information system (IS) security for e-banking. *Online Journal of Applied Knowledge Management*, 1(1), 1-17.
- Castillo, D., & Falzon, J. (2018). An analysis of the impact of Wannacry cyberattack on cyber security stock returns. *Review of Economics & Finance*, 13(3), 93-100.
- Corallo, A., Lazoi, M., & Lezzi, M. (2020). Cybersecurity in the context of industry 4.0: A structured classification of critical assets and business impacts. In *Computers in Industry* (Vol.114). <https://doi.org/10.1016/j.compind.2019.103165>
- Damilola, O., Emmanuel, A., & Ngoc, P.B. (2023). Cybercrime on social media in Nigeria: trends, scams, vulnerabilities and prevention, <https://dx.doi.org/10.22624/aims/csean-smart2023p17>
- Dornheim, P., & Zarnekow, R. (2023). Determining cybersecurity culture maturity and deriving verifiable improvement measures. *Information & Computer Security*. <https://dx.doi.org/10.1108/ics-07-2023-0116>
- Falch, M., Olesen, H., Skouby, K.E., Tadayoni, R., & Williams, I. (2023). Cybersecurity strategies for SMEs in the Nordic Baltic Region. *Journal of Cyber Security and Mobility*, 11(6), 727- 754. <https://dx.doi.org/10.13052/jcsm2245-1439.1161>
- Gordon, L. A., Loeb, M. P., Lucyshyn, W., & Zhou, L. (2018). Empirical Evidence on the Determinants of Cybersecurity Investments in Private Sector Firms. *Journal of Information Security*.9(5),125-134. <https://doi.org/10.4236/jis.2018.92010>
- Ikuero, F.E., & Zeng, W. (2022). Improving cybersecurity incidents reporting in Nigeria: micro and small enterprises perspectives. *Nigerian Journal of Technology*, 41(3), 512-520. <https://dx.doi.org/10.51594/csitrj.v5i2.761>
- Koniagina, M., Belotserkovich, D., Vorona-Slivinskaya, L., & Pronkin, N. (2023). Measures to ensure cybersecurity and regulation of the internet of things in the Russian federation: Effectiveness assessment. *Journal of Economic Issues*, 57(1), 257-274. <https://dx.doi.org/10.1080/00213624.2023.2170136>
- Lebogang, V., Tabona, O., & Maupong, T. (2022). Evaluating cybersecurity strategies in Africa. In *Cybersecurity capabilities in developing nations and its impact on global security* (1-19). IGI Global. <https://dx.doi.org/10.4018/978-1-7998-8693-8.ch001>
- Lopatova, N. (2021) Cybersecurity as a driver of business growth. *Science and Innovations* 3 (217): 38-41. <https://doi.org/10.29235/1818-9857-2021-3-38-41>
- Nte, N.D., Enoke, B.K., & Teru, V.A. (2022). A comparative analysis of cyber security laws and policies in Nigeria and South Africa. *Law Research*

- Review Quarterly, 8(2), 233-258.
<https://dx.doi.org/10.15294/lrrq.v8i2.56486>
- Ozsunur, F. (2021) Business Management and Strategy in Cybersecurity for Digital Transformation. Handbook of Research on Advancing Cybersecurity for Digital Transformation 144-162. <https://doi.org/10.4018/978-1-7998-6975-7.ch008>
- Reis, O., Oliha, J.S., Osasona, F., & Obi, O.C. (2024). Cybersecurity dynamics in Nigerian banking: trends and strategies review. *Computer Science & IT Research Journal*, 5(2), 336-364. <https://dx.doi.org/10.51594/csitrj.v5i2.761>
- Sabillon, R. (2022). National Cybersecurity Strategies. In Research Anthology on Business Aspects of Cybersecurity (pp. 500-513). IGI Global. <https://dx.doi.org/10.4018/978-1-6684-3698-1.ch023>
- Saeed, S., Altamimi, S., Alkayyal, N., Alshehri, E., & Alabbad, D. (2023) Digital Transformation and Cybersecurity Challenges for Businesses Resilience: *Issues and Recommendations. Sensors* 23 (15). <https://doi.org/10.3390/s23156666>
- Sandhu, K. (2021) Advancing Cybersecurity for Digital Transformation. Handbook of Research on Advancing Cybersecurity for Digital Transformation 1-17. <https://doi.org/10.4018/978-1-7998-6975-7.ch001>
- Reis, O., Oliha, J.S., Osasona, F., & Obi, O.C. (2024). Cybersecurity dynamics in Nigerian banking: trends and strategies review. *Computer Science & IT Research Journal*, 5(2), 336-364. <https://dx.doi.org/10.51594/csitrj.v5i2.761>



Venue Attributes and Wedding Banquet Choice: An Empirical Evidence of Couples in Lagos State Nigeria

Mercy Busayo Bello¹

School of Applied Sciences,
Federal Polytechnic Auchi, Auchi, Edo State, Nigeria,
ORCID: <https://orcid.org/0000-0003-2218-8238>.

Yekinni Ojo Bello²

Faculty of Management Sciences,
University of Port Harcourt, Choba,
Rivers State, Nigeria,
ORCID: <https://orcid.org/0000-0003-3844-0290>.

Publication Date: 2025/06/30

Abstract

Studies that examined the association between venue attributes and wedding banquet choice in respect of Lagos State, Nigeria is under reported. The current study therefore filled this research gap. The study adopted a quantitative research design, hence used structured questionnaires to collect data from 323 couples in each of the 37 selected events centers in the 20 LGAS in Lagos State. Data that were collected was analysed using Partial Least Squares Structural Equation Modeling. The result show that three of the six tested hypotheses, four of the relationships were proven to be supported and two failed to support. By confirming the link between venue attributes and wedding banquet choice, hence this study offers an insightful report on the venue attributes that stimulates wedding banquet choice in Lagos State. Therefore, managers and operators of events centre business in Lagos State should give quality attention to the seating capacity of their facilities, consider accessible location, institute affordable and friendly tariff structure, and ensure undisrupted power supply system to attract and sustain wedding function patrons in their facilities. This research contributes to the sustainability and continued growth of the Nigeria events center industry; and contributes to the broader base of consumer behaviour and wedding events literature.

Keywords: *Venue Attributes, Wedding Banquet Choice, Lagos State, Events Industry, PLS SEM.*

Introduction

Hosting events is considered as a fundamental part of the society and a complex phenomenon (Moufakkir & Pernecky, 2014). According to Quinn (2013), the awareness and usage of event centers to hosting events is on the rise. It is estimated that a billion events take place every year, having a significant impact on the global genuine progress indicators (GPI) (Silvers, 2008; Tassiopoulos, 2020). Globally, the business of hosting

events contributed about US\$1.5 trillion to the global gross domestic product (GDP) in 2017 (Oxford Economics, 2018). In the United Kingdom, facilities that host events otherwise known as event centers worth £42.8 billion in 2016 (Baan, 2019). According to Lock (2021) the market size of event centers in the United States was valued at US\$4.89 billion. Event centers sub sector supports on an average 252,000 direct and indirect jobs and contributed US\$7.7 billion to South Africa's

GDP in 2019 (South Africa National Convention Bureau, 2020). Pegged at US\$20 billion, the events industry in Nigeria is estimated to be among the most extravagant in the world (Ndiomewese, 2017), hence often times, a venue could be priced for as high as ₦4 million. Report has it that an average Nigerian company or middle-class family spends over \$15,000 per event. With Lagos State alone reportedly hosting over 20,000 events monthly in 2015, with earnings amounted to about \$300,000,000 annually according to association of professional party organizers and events center managers of Nigeria (Ndiomewese, 2017). Even more revealing is the fact that venue rentals take up about 5% of event costs -- more reason it is baffling how little scholarly attention is given to popular indices to securing venues among event centers patrons.

It is pertinent to emphasised that, the contributions of weddings to sustainable events center business cannot be over emphasized. Wedding reception is often customarily held at a banquet facility often called events center after the signing of the marriage certificate at the government marriage registrar (Lau & Hui, 2010; Dianna, 2019). This denotes that events center is a key element in wedding event planning. According to a recent global survey of brides, intended couples spend between US\$12,343 and US\$14,006 (i.e., 40% to 50%) of their wedding budget to hire venue used for the wedding reception (Price, 2021). In Nigeria, staging wedding reception in an events center is fast becoming an important component of the Nigerian marriage ceremonial culture. Forbes reports that Nigerian elites spend an average of 2 million dollars on their dream weddings (Thisday Newspaper, 2025). In Lagos State, depending on its location, size and features, wedding venues can go for between US\$1,000 to US\$20,000 per day (Thisday Newspaper, 2025).

The choice of a venue for wedding banquet is therefore a complex decision influenced by many factors. Hence, must reflect the needs and preferences, and personalities of the prospective couples (Van der Wagen, 2005; Bowdin et al., 2006). It is pertinent to state that the proliferation of event centers and facilities for different events especially wedding banquet in Lagos State in recent time is a genuine response to the increasing demand for professional event management services by prospective couples. Sustaining the growing trend of event centers' business in Nigeria and Lagos State in particular requires the understanding of the needs of the event centers' patrons especially the intending couples in respect of the venue attributes and how it impacts on their choice of the venue for wedding banquet. Hence, this provides event centers' owners and managers with the required information to develop and market their product offerings that best cater to the needs of the market. To the best of our knowledge, the existing event management literature in the emerging countries particularly Nigeria has virtually not empirically determined and published studies on couples' behaviour with regard to choose venue for wedding banquet. To fill this gap, this research aims to examine the relationship between venue attributes, and wedding banquet choice among Nigerian couples in Lagos State.

Literature Review

The Concept of Venue Attributes

Van der Wagen (2005) sees venue attributes as the unique specifications, including the facility's location, capacity, creative theme or image, availability, and accessibility that contribute to the total experience of the customers. Callen and Hoyes (2000) defined venue attributes as a compendium of services and designs such as the facility's convenience, cleanliness, lighting, decoration, audio equipment, accommodation, and price capable

of attracting and meeting the needs of the customers. Bello and Bello (2019) defined venue attributes as those venues-bond amenities with aesthetic values used as the basis for banquet facility marketing and a focal point for customers' activities and spending. Venue attributes is also defined as human features and designated permanent amenities, which are controlled and managed for the enjoyment, amusement, and entertainment of the visiting public (Bello & Bello, 2017). Mazlina et al. (2015) defined venue attributes as those exceptional fixed and movable criteria that shape the selection of a banquet facility among the patrons. The index in the above definitions shows that venue attributes is seen as the mixture of the different elements that defined the quality and the appealing nature of the banquet facility.

The Meaning of Wedding Banquet Choice

Wedding banquet choice is defined as the selection of a spot over the other due to uniquely identified facilities or features for a wedding reception (Tromczynski & Stanfar, 2006; Le Falher et al., 2015). The concept is seen as the selection of a site with the specific purpose of hosting wedding events (Olanga et al., 2015). Wedding banquet choice is defined as a series of decisions that involve an individual's cognitive processes to select a venue for a wedding event (Lau & Hui, 2010). It explained the selection of a venue to meet a definite wedding reception need or function satisfactorily (Pike, 2008; Saayman, 2006). According to Yoo and Zhao (2010), wedding banquet choice is defined as the decision-making process of selecting a venue for a wedding event (Yoo & Zhao, 2010; Mair & Thompson, 2009). It explained the decision-making process involved in selecting a venue over another based on implicit cognition and environmental variables for a wedding event (Lau & Hui, 2010; Guan et al., 2015).

Theoretical Underpinning: The Choice-sets Model

The choice-sets model has been widely employed in consumer research to explaining individual's decision-making process (Jang et al., 2009). The model has received a great deal of attention due to its simplicity, practical advantages, and theoretical soundness. Therefore, the model is often used to explain the destination selection process among couples (Sirakaya & Woodside, 2005; Jang et al., 2009). The model is recently been applied to banquet venue choice among intending couples. The model, therefore, opined that intending couples evaluate different elements such as venue-related and personal attributes before their final decision on the choice of a venue for a wedding banquet (Callan & Hoyes, 2000; Lau & Hui, 2010; Guan et al., 2015). This model is being applied in the current study to explaining venue-related attributes in the context of the banquet facility choice among the intending couples in Lagos state.

Empirical Review and Hypothesis Development

Sitting Capacity and Wedding Banquet Choice

The sitting capacity of the venue explains the condition in which the venue has the available space to accommodate the guests (Callan & Hoyes, 2000; Wells, 2007). Sitting capacity is one of the main attributes that is considered to be important when one chooses a venue facility for a wedding (Comas & Moscardo, 2005; Wells, 2007). The capacity of a venue is identified as the main attribute when deciding on a venue facility for a wedding (Lau & Hui, 2010; Tassiopoulos, 2010). Van der Baan (2018) determined the attributes that contributed to the wedding venue selection of prospective brides in the Gauteng province of South Africa. The result shows that the sitting capacity of the venue facility is the third most important choice attribute.

Overall Maintenance and Wedding Banquet Choice

The overall maintenance of the venues' buildings and facilities is important to the acceptance of the overall image of a venue (Saayman, 2000; Chan, 2010). The results of the selected attributes of a venue for a wedding banquet among Hong Kong prospective wedding couples indicated that the overall maintenance of the facility is the most important requirement contributing to the perfect wedding venue selection (Lau & Hui, 2010). In a study on creating marketing strategies for the wedding business unit of Amari Atrium Hotel, it was reported that the extent of venue facility maintenance is one of the most important requirements contributing to the perfect wedding venue selection (Suvagondha & Soparat, 2008). Van der Baan (2018) determined the attributes contributing to the wedding venue selection of prospective brides in the Gauteng province of South Africa. The result shows that the overall maintenance of the venue facility is the most important choice attribute.

On-site Accommodation and Wedding Banquet Choice

On-site accommodations are the rooms where the bride dresses and stays overnight, including hosting the invited guests (Rodgerson & Wolfaardt., 2015). Accommodation facilities at the venue premises deliver a good impression to the wedding guests (Comas & Moscardo, 2005). Callen and Hoyes (2000) investigated event venue choice indicators for different types of events and observed that wedding organisers consider on-site accommodation as the deciding factor. Van der Baan (2018) determined the attributes contributing to the wedding venue selection of prospective brides in the Gauteng province of South Africa. The result shows that on-site accommodation is

one of the most important choice attributes of the venue facility.

Location / Accessibility and Wedding Banquet Choice

Location refers to the physical position of the venue and its accessibility. A good location increases the value of the venue facility (Callan & Hoyes, 2000), hence convenient for the guests attending the wedding. Callen and Hoyes (2000) determined event venue choice attributes for different types of occasions and observed that wedding organisers consider location/accessibility as the deciding factor. Lau and Hui (2010) examined the selection attributes of wedding banquet venues among Hong Kong prospective wedding couples. The study found price and location as the determining factors. Van der Baan (2018) determined the attributes contributing to the wedding venue selection of prospective brides in the Gauteng province of South Africa. The result shows that location is one of the most important choice attributes of a venue facility for a wedding.

Cost / Affordability and Wedding Banquet Choice

The cost/affordability attribute explains the financial value of the venue rental, food and beverage, setting package, and equipment expenses (Lau & Hui, 2010). Lockyer (2005) reviewed several studies and finds that cost/affordability is the most important consideration in the selection of event centers. Callen and Hoyes (2000) investigated the requirements of event organisers when choosing unusual venues for types of events, and observed that wedding organisers consider the cost of the facility as the most determining factor for event center choice. Lau and Hui (2010) examined the selection attributes of the wedding banquet venues among Hong Kong prospective wedding couples. The study found cost/affordability as one of the determining factors. Seebaluck et al.

(2015) examined the push and pull motives for the choice of Mauritius as the wedding destination. The study illustrated that reasonable costs of a wedding venue are a major pull factor. Comas and Moscardo (2005) opined that prospective wedding couples confessed that the price of the venue facility is one of their biggest considerations when deciding on wedding banquet venues.

Power Supply Capability and Wedding Banquet Choice

Power is a very important factor at a venue during an event. It is therefore important to know the capability of the venue to manage power outlets so that power failures can be avoided during the event is one of the major indicators for banquet facility choice (Tasssiopoulos, 2005). During larger events, an electrical technician should attend, in case additional power needs occur during the event

(Shone & Parry, 2004). The venue must be able to supply adequate lighting to enhance the guests' well-being (Lin, 2011). In their study of prospective wedding couples' choice of a venue for a wedding, it was reported that the power supply capability of the facility influences the decision of the couples (Callan & Hoyes, 2000).

Operational Framework

In this study, a venue facility choice model that explains the attributes that influence couples to choose a venue facility for a wedding in Lagos state is proposed. The hypothetical model shows six attributes as independent variables that predict the choice of a venue for the wedding reception. The consideration of these attributes, whether conscious or unconscious determines the final choice of a venue among the couples in Lagos state as shown in Figure 1.1.

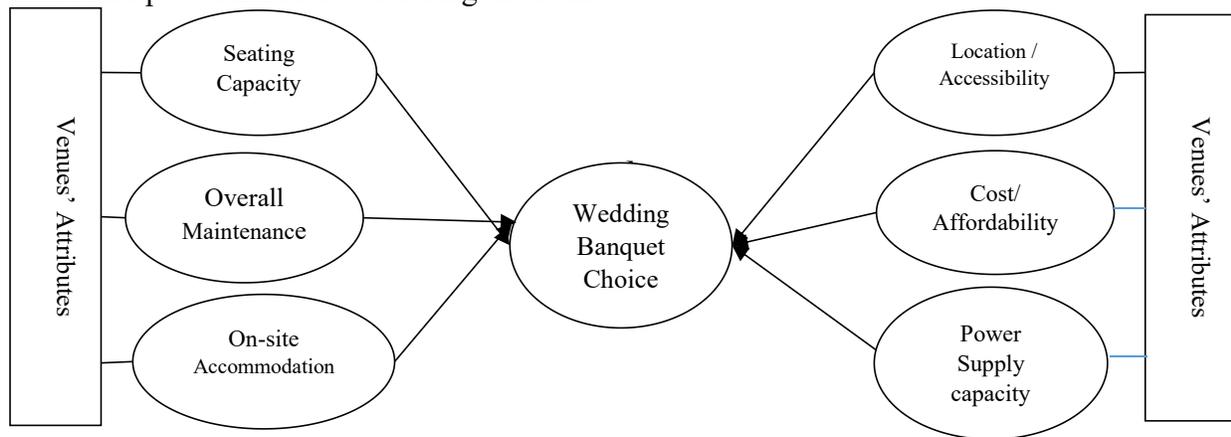


Figure 1: Showing Venues' Attributes Model for Wedding Banquet Choice by Couples in Lagos State.

Research Methodology

Research Design

This study used copies of a structured questionnaire to gather relevant data to determine the relationship between venues' attributes and venues' choice for a wedding function in Lagos State, hence a quantitative research design.

Instrumentation

The 42 items related to venue attributes were derived from the study of Van der Baan (2018) and modified into 24 relevant items used in this study with venues' sitting capacity having 4 items; On-site accommodation- 7 items; Venues' location/accessibility - 5 items; Cost/affordability - 5 items, and Power supply capability - 3 items. Furthermore, a 6-item

hotel physical environment scale developed by Bello & Bello (2021) was modified and used to measure overall venue maintenance attributes in this study. In addition, a 5- items hotel choice scale in Bello (2018) was adapted for wedding banquet choice by the couples in Lagos State. Each of the 35- items in the instrument was measured on a 5-point Likert scale ranging from (1) Strongly Disagree to (5) Strongly Agree.

Research Population and Sample Size

The research population for this study comprised 65 registered event centers in the 20 LGAs in Lagos State (Registered Hospitality and Tourism Enterprise in Lagos, 2021). The researcher selected 37 of the 65 registered event centers through a systematic random sampling technique. This study, therefore, focused on the couples that patronised the services of the 37 selected event centers for their wedding, thus, an infinite population. To determine the exact sample size for the present study, the suggestion in Freneund and William (2009) in (Bello, 2022) was upheld. Applying this formula, the sample size put at 323 was obtained as follows.

$$n = \frac{(Z_{\alpha/2})^2 PQ}{e^2}$$

$$n = \frac{(1.96)^2 (0.7)(0.3)}{(0.05)^2}$$

$$n = \frac{(3.8416)(0.7)(0.3)}{(0.0025)}$$

$$n = \frac{0.806746}{0.0025}$$

$$N = 323$$

The researcher personally visited each of the 37 selected event centers in the 20 LGAS in Lagos State and, thus, administered the structured questionnaires until the sample size of 323 was met.

Data Analysis

Partial Least Squares Structural Equation Modelling (PLS_SEM) approach that explores the linear relationships between multiple independent variables and single or multiple dependent variables (Hair et al., 2014) was adopted for the analysis of the data collected in this study. This was done with the aid of *SmartPLS v4. Software*. The PLS-SEM relies on pre-specified networks of relationships between constructs and as well their measures (Hair et al., 2014) thus, making it different from the regular regression approach.

Results

Demographic Distribution of Respondents

The gender distribution of the respondents indicates that 63.2% of the respondents are Male and 36.8% are Female. This implied that majority of the respondents that participated in the study are male. In respect to the respondent's marital status, 66.9% of the respondents are Married, 32.2% are Singles, 0.6% are Others and 0.3% are Divorcees. This implies that majority of the respondents that participated in the study are Married, followed by the Singles. The religion distribution of the respondents used in the study includes: Christianity (13.6%), Islam (71.8%) and Others (14.6%). This shows that majority of the participants in the study are Muslims followed by Christians with only very few Others participated. In respect to academic qualification of the respondents, 35.9% bagged National diploma, Master degree (33.4%), and Bachelor degree (30.7%). This shows that majority of the participants in the study are holders of National diploma followed by holders of Master degree, and lastly holders of Bachelor degree.

Assessment of Measurement Model

The hypothesized model of this study was evaluated for its construct reliability including, convergent and discriminants validity using

SmartPLS 4.0 (Hair et al. 2014; Ringle et al., 2005). As part of the requirement for the evaluation of the validity and reliability of the hypothesized model, the researchers examined factor loadings of all items of the study variables. The result of the factor loadings of the initial hypothesized model shows that 9 out of 35 items (i.e., SEC1, OVM1, OVM2, OVM5, OSA1, OSA2, OSA5, OSA6, and OSA7) has factor loadings less

than the acceptable threshold of 0.7 (Hair et al. 2014; 2017). In view of these, the 9 items were deleted from the initial hypothesized model, one item at a time starting from the lowest loading. Having deleted all the items with the low factor loadings, the final hypothesized model yielded a better result hence, fit well with the data as shown in Figure 2.

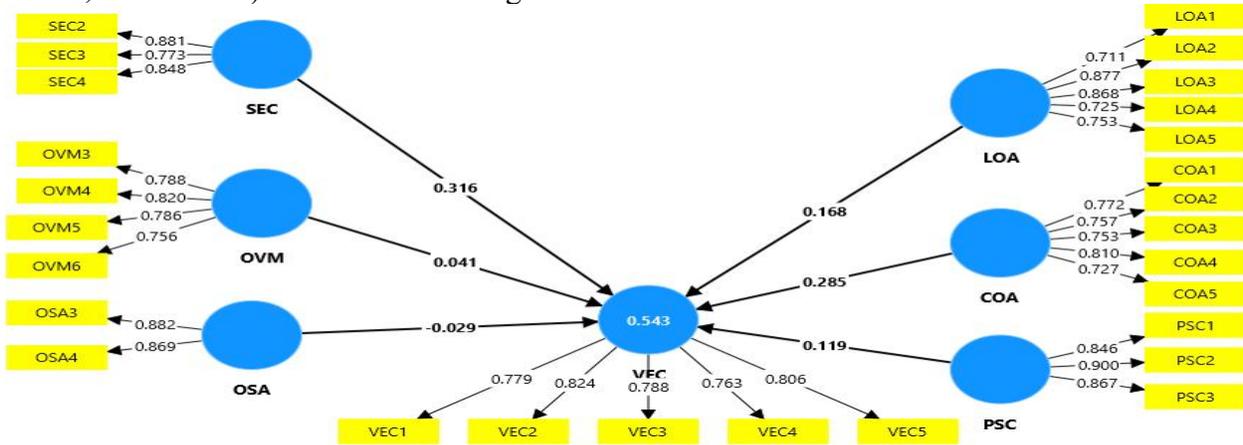


Figure 2. Hypothesised model with fit factor loadings.
Source: Researcher’s Computation (2025).

Furthermore, the result of the final hypothesized measurement indicators such as Cronbach alpha (α), composite reliability (CR), and average variance extracted (AVE)

including, factor loadings of all the items in the study variables yielded a better result as presented in Table 1.

Table 1: Results of the measurement model

Latent Variable	Items	Loadings	Cronbach Alpha	Composite Reliability	AVE
Seating Capacity	SEC 2	0.881	0.700	0.874	0.698
	SEC 3	0.773			
	SEC 4	0.848			
Overall Maintenance	OVM 3	0.788	0.799	0.867	0.620
	OVM 4	0.820			
	OVM 5	0.786			
	OVM 6	0.756			
On-site Accommodation	OSA 3	0.882	0.847	0.892	0.766
	OSA 4	0.869			
Location Accessibility	LOA 1	0.711	0.847	0.892	0.624
	LOA 2	0.877			
	LOA 3	0.868			
	LOA 4	0.725			
	LOA 5	0.753			
Cost/ Affordability	COA 1	0.772	0.824	0.875	0.584
	COA 2	0.757			
	COA 3	0.753			
	COA 4	0.810			
	COA 5	0.727			
Power Supply Capacity	PSC 1	0.846	0.841	0.904	0.759
	PSC 2	0.900			
	PSC 3	0.867			
Wedding Banquet Choice	VEC 1	0.779	0.852	0.894	0.628
	VEC 2	0.824			
	VEC 3	0.788			
	VEC 4	0.763			
	VEC 5	0.806			

Source: Researcher’s Computation (2025).

As shown in Table 1, the results of the convergent validity of the final hypothesized model shows that the factor loadings of all the items in the study variables were statistically significant and exceeded the minimum acceptable threshold of 0.7 (Tabachnick & Fidell, 2007). Also, the average variance extracted (AVE) exceed the minimum acceptable threshold value of 0.5 (Hair et al., 2014). In addition, the model was assessed for

the internal consistency of the data hence, Cronbach Alpha (α), and Composite Reliability (CR) values for all the variables meet the required threshold of 0.7. This implies that all the variables in this study have a satisfactory level of internal consistency. In addition, the discriminant validity of the final hypothesized model was assessed to assure external consistency of the data as shown in Table 2.

Table 2: Discriminant validity of the variables

Constructs	Cost/ Affordability	Location Accessibility	On-site Accommodation	Overall Maintenance	Power Supply Capacity	Venue Choice
Cost/ Affordability						
Location Accessibility	0.666					
On-site Accommodation	0.074	0.060				
Overall Maintenance	0.614	0.716	0.075			
Power Supply Capacity	0.419	0.294	0.088	0.405		
Seating Capacity	0.661	0.740	0.086	0.823	0.410	
Wedding Banquet Choice	0.708	0.659	0.089	0.625	0.454	0.769

Source: Researcher’s Computation (2025).

In Table 2, the correlation between the latent variables, were compared with the square root of AVEs (Hair et al., 2014). The result shown that the square root of AVEs along the diagonal as shown in Table 2 are lower than the correlations between the constructs. This validates fulfilment of the discriminant validity requirement.

Structural Hypotheses Model Testing

The significance of the path coefficients is determined by the beta values of the coefficient of the regression and t-values which is calculated using the bootstrapping method (Hair et al., 2014). The rule of thumb of critical t-values for a two tailed test of 1.96 (significance level = 5%) is considered to be significant (Hair et al., 2014), hence Figure 3.

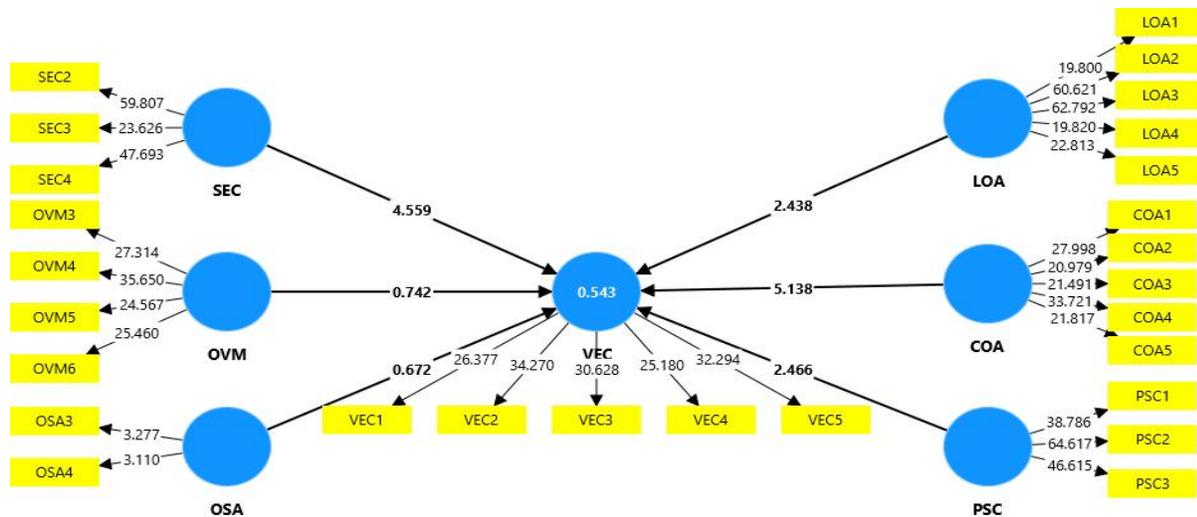


Figure 2. Hypothesized structural relationship model.
Source: Researcher's Computation (2025).

As shown in Figure 3 based on the objectives of this study, six direct hypothesized relationships were tested. The result shows that four of the relationships were proven to be supported and two not supported.

Furthermore, Table 3 show that hypotheses that were supported and accepted have t-value >1.96 while the rejected hypotheses have t-value < 1.96 hence, show the effect of individual latent constructs (i.e., venue attributes) on the dependent variable (i.e., wedding banquet choice).

Table 3: Summary of direct hypotheses testing

S/n	Hypothesized Path	Path	Standard	t-Value	Findings	f-Square	Effect Size
1.	SEC -> VEC	0.521	0.316	4.559	Supported	0.236	Medium
2.	OVM -> VEC	-0.128	0.041	0.742	Fail to Support	0.015	Small
3.	OSA -> VEC	-0.035	-0.028	0.672	Fail to Support	0.004	Small
4.	LOA -> VEC	0.132	0.168	2.438	Supported	0.022	Small
5.	COA -> VEC	0.326	0.285	5.138	Supported	0.161	Small
6.	PSC -> VEC	0.111	0.119	2.466	Supported	0.032	Small

***P<0.05**

Source: Researcher's Computation (2025).

The study also shows that the R-square value of all the constructs put together have the tendency of influencing 70.0% of changes in

wedding banquet choice. The remaining 30.0% is due to other factors and residuals.

Effect Size

Following Cohen (1988) guideline, the effects sizes of dimensions of the independent variable (i.e., Venue attribute on the dependent variable (i.e., venue choice) shows that, Seating capacity dimension could be viewed as medium. The remaining five dimensions of the independent variable (i.e., Cost/ Affordability, Location accessibility,

On-site accommodation, Overall maintenance, and Power supply capacity), on the dependent variable (i.e., wedding banquet choice) shows small effect size. In line with the argument of Chin et al. (2003), who emphasises that even the minutest strength of f^2 might be considered because, they can affect the dependent variable in their own way.

References

- Baan, D. V. (2019). *Determining the attributes contributing to wedding venue selection*. North West: North West University.
- Bello, M. B. (2022). *Assessment of impact of job satisfaction on turnover intention and employees' performance in the hotel industry in Lagos state*. Ado Ekiti, Nigeria: A Ph.D thesis submitted to the college of postgraduate studies, Afebabalola University, Ado Ekiti.
- Bello, Y. O., and Bello, M. B. (2019). Destination attributes and domestic tourists' choice of obudu mountain resort Calabar. *Ottoman: Journal of Tourism and Management Research*, 4, (3), 515-533.
- Bello, Y. O. (2018). *Hospitality and Tourism Economics*. Ondo: Grace Excellent Publishers.
- Bello, Y. O., and Bello, M. B. (2017). *Tourism Planning and Development in an Emerging Economy*. Ondo: Grace Excellent Publishers.
- Bello, Y., and Bello, M. B. (2021). Hotel attributes and customer's choice behaviour: evidence from Port Harcourt city, Nigeria. *International Journal of Social Sciences and Education Research*, 7, (2), 181-193.
- Bowdin G, Allen J, O'Toole W, Harris R and McDonnell I. (2006). *Events Management*. Oxford, UK: Second edition, Elsevier.
- Callan, R.J., and Hoyes, M.K. (2000). A preliminary assessment of the function and conference service product at a UK stately home. *Tourism Management*, 21, (6), 571–581.
- Chan, L. (2010). *Selection of hotels: Is the sustainability of a building more important than its aesthetic appearance?* Oregon : Oregon State University.
- Chin, W. W., Marcolin, B. L., and Newsted, P. R. (2003). A partial least square latent variable modeling approach for measuring interaction effects: results from a monte carlo simulation study and an electronic-mail emotion/adoption study. *Information System Research*, 14, (2), 189-217.
- Cohen, J. (1988). *Statistical power analysis: A computer program*. UK: Routledge.
- Comas, M., and Moscardo, G. (2005). Understanding associations and their conference decision-making processes. *Journal of convention & event tourism*, 7, (3-4), 117-138.
- Dianna, V. B. (2019). *Determining the attributes contributing to wedding venue selection*. UK: The North West University.
- Guan, L., Luo, Y., and Tang, L.R. (2015). An exploratory study of decision makers for choosing wedding banquet venues: push and pull motivations. *International journal of tourism cities*, 1, (2), 162-174.
- Hair, J. F. Jr., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling, (2nd ed.)*. Canada: Sage Publications, Thousand Oaks.

- Hair, J.F, Hult, G. T. M, Ringle, C. M, and Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS_SEM)*. Los Angeles/ London/ New Delhi: Sage.
- Jani, D., Jang, C., and Hwang, Y.H. (2009). Differential Effects of Tourism Resources on the Attractiveness of Destination Bundles. *International Journal of Tourism Sciences*, 9, (1), 23–36.
- Lau, C., and Hui, S. (2010). Selection attributes of wedding banquet venues: an exploratory study of Hong Kong prospective wedding couples. *International Journal of Hospitality Management*, 29,(2), 268-276.
- Le Falher, G., Gionis, A. and Mathioudakis, M. (2015). *Where is the Soho of Rome? Measures and algorithms for finding similar neighborhoods in cities*. Helsinki, Finland: Aalto University. Association for the Advancement of Artificial Intelligence. Retrieved from <https://www.aaai.org/ocs/index.php/ICWSM/ICWSM15/paper/viewFile/10514/10506>
- Lin, C. (2011). *Building an infra-structural design and facilities for the disabled*. Turku: Abdul Rahman: Faculty Engineering and Science University .
- Lock, S. (2021), *Statista*. Retrieved from statista: <https://www.statista.com/statistics/1176483/party-and-event-planner-industry-market-size-us>.
- Lockyer, T. (2005). The perceived importance of price as one hotel selection dimension. *Tourism Management* , 26, (4), 529–537.
- Mair, J. and Thompson, K. (2009). The UK association conference attendance decision-making process. *Tourism Management*, 30, (3), 400-409.
- Mazlina, M., Ahmad, S., Sridar, R., and Syamsul, H. M. A. (2015). The Role of Destination Attributes and Memorable Tourism Experience in Understanding Tourist Revisit Intentions. *American Eurasian Journal of Agriculture and Environment Science*, 32-39.
- Moufakkir. O and Pernecky. T. (2014). *Ideological, social and cultural aspect of event*. oxfordshire, UK: Cab International.
- Ndiomewese, I. (2017). *How OgaVenue is taking hold of the \$20 billion events industry in Nigeria*. Retrieved from Techpoint Digest Africa: <https://techpoint.africa/2017/05/01/ogavenuenigerian-events-industry>
- Olanga, C., Gesage, B., and Murungi, C. (2015). Planning expertise, variables influencing performance outcomes and management of wedding organization firms in Nairobi Country, Kenya. *African Journal of Tourism, Hospitality and Leisure Studies*, 1, (1), 1-28.
- Oxford Economics. (2018). *Economic impact of the us hotel industry*. England: American Hotel and Lodging Association Educational Foundation.
- Price, S. L. (2021). *Statista*. Retrieved from Wedding budget to hire venue : <https://www.statista.com/statistics/1176483/party-and-event-planner-industry-market-size-us>.
- Quinn, B. (2013). *Key concepts in event management*. London, UK: SAGE.
- Registered Hospitality and Tourism Enterprise. (2021). Retrieved from <https://lagosstate.gov.ng/wp-content/uploads/2020/06/Registered-list-for-PRO-office.pdf> May, 5
- Ringle, C. M., Wende, S., and Will, A. (2005). *SmartPLS 2.0 (software)*. SmartPLS, Hamburg. Retrieved from www.smartpls.de (accessed January 7, 2020).
- Rogerson, J.M., and Wolfaardt, Z. (2015). Wedding tourism in South Africa: an exploratory analysis. *African journal of hospitality*, 4, (2), 1-6.

- Saayman, M. (2000). *En route with tourism. 2nd ed.* Potchefstroom: Leisure consultants and publications.
- Saayman, M. (2006). *Marketing tourism: products and destination: getting back to basics.* Potchefstroom: Leisure Consultants and Publications.
- Seebaluck, N.V., Munhurrun, P.R., & Naidoo, P. & Rughoonauth, P. (2015). An analysis of the push and pull motives for choosing Mauritius as the wedding destination. *Procedia -Social and behavioural Sciences*, 175: 201-209.
- Shone, A. and Parry, B. (2004). *Successful event management: a practical handbook.* London: Thomson Learning.
- Silvers, J. (2008). *Risk management for meetings and events.* Oxford, UK: Butterworth-Heinemann.
- Sirakaya, E., and Woodside, A. (2005). Building and testing theories of decision making by travelers. *Tourism Management*, 26, 815–832.
- South Africa National Convention Bureau. (2020). *Event details worksheet.* Johannesburg: SANCB.
- Suvagondha, A., and Soparat, P. (2008). *Creating marketing strategies for wedding business unit of Amari Atrium hotel.* Västerås, Sweden: Mälardalen University.
- Tabachnick, B. G., and Fidell, L. S. (2007). *Using multivariate statistics (5th ed.).* Boston: Allyn and Bacon.
- Tassiopoulos, D. (2005). *Event management: a professional and developmental approach 2nd ed.* Lansdowne: Juta.
- Tassiopoulos, D. (2020). *Event management: a developmental and managerial approach 3rd ed.* Claremont: Juta.
- Thisday Newspaper. (2025). *Shaping the events industry.* Retrieved from <https://www.thisdaylive.com/index.php/2018/06/20/shaping-the-events-industry>
- Tromczynski, E. A. (2006). *System, method and computer program product for managing meeting planning operations.* U.S. Patent Application 11/085,794. Retrieved from <http://www.google.com/patents/US20060010023>
- Van der Baan, D. (2018). *Determining the attributes contributing to wedding venue selection.* South Africa: North-West University.
- Van der Wagen, L. (2005). *Event Management for Tourism, Cultural, Business and Sporting Events.* Frenchs Forest, NSW: Pearson/Hospitality Press.
- Wells, M. (2007). *Planning your perfect wedding reception: the ultimate guide.* Australia: eBookwholesaler.
- Yoo, J. J., and Zhao, X. (2010). Revisiting determinants of convention participation decision making. *Journal of Travel and Tourism Marketing*, 27, (1), 179-192.



A Correlational Assessment of the Impact of Teamwork on Employee Optimum Goal Delivery Among Selected Manufacturing Firms in Nigeria

AKPOYIBO, Godspower Ph.D, FCIHRM, CHRP.

email: akpooghenpowerplay@gmail.com

ORCID ID: <https://orcid.org/0000-0001-8992-5322>

Department of Business Administration,

Faculty of Management Sciences,

Delta State University, Abraka, Nigeria.

Publication Date: 2025/06/30

Abstract

This study assessed the correlational nexus between teamwork and employee optimum goal delivery in selected manufacturing firms in Nigeria. The study was conceived to ascertain whether teamwork actually contribute to employee performance efficiency and productivity in area of goal delivery and attainment. Correlational research design was employed to examine how teamwork impact employee goal attainment in the organization. Relying on primary data, a self-structured and validated questionnaire was deployed to elicit information from the 202 selected respondents who're employees of the selected manufacturing firms. Prior to the distribution of the instrument, it was pilot examined where overall Cronbach' Alpha reliability value of 8637 was obtained. Statistical tool such as mean, standard deviation, frequency and simple regression examination were applied to test postulated hypothesis of the study. The result indicated that the t-values obtained for teamwork (TeamWk) is 3.39 with a corresponding 0.000 (p-value). This outcome established copiously that teamwork firms has a positive and significant correlation with employee optimum goal delivery. That's to say, teamwork contributes maximally to employee ability towards optimum goals delivery and attainment. The study therefore recommends amongst other things that operators and managers of manufacturing firms should give priority attention to promotion of collaborative culture to enhance performance efficiency, productivity, motivation and firms overall effectiveness.

Keywords: *Correlation, Teamwork, Employee Optimum Goal Delivery, Innovation and creativity, Manufacturing Firms.*

Introduction

Organizations across the globe are formed with specific goals and objectives, which may include the production of goods and services to address the needs of consumers at various levels for the purpose of generating profits or earnings to address the dividend needs of stakeholders and also to cater for the cost or expenses required for the day-to-day running of such firms. However, this does not come without some perceived setbacks and operational glitches, especially to the

manufacturing concern. The Nigerian manufacturing sector is a vital sector of the overall nation's economy, adding value to economic growth and stability by contributing significantly to job creation, industrial growth, and the development of the economy. Nevertheless, this industry continues to face or encounter persistent challenges like disengaged employees, inefficiencies, low productivity, and waning commitment and motivation on the part of engaged staff, simply because manufacturing firms depend

largely on seamless organization and coordination between and among staff to meet production targets, keep quality standards, and optimize efficiency. Succinctly, in order to address and overcome these obstacles/drawbacks and put operations on the right pedestal, firms operating strategies are placing dire and greater emphasis on teamwork as a strategic driver of operational efficiency and success and employee effectiveness. Cited in Twesigye et al. (2024), teamwork is the most significant aspect of HRM as it acts as a support intention to the business strategy and various HR functions like reward and performance management. Cohen and Bailey (1999), cited in Twesigye et al. (2024), described a team as a group of people who are interdependent in the tasks and who share responsibility for the outcomes of the assigned task.

Mohammad & Shahid (2017) discovered from their study that teamwork has a positive and significant effect on employees' performance. This signifies that teamwork contributes to employee optimum goal delivery. Teamwork is very strategic to every organization's success; this, according to Jones, Richard, and B (2008), teams enable employees to cooperate, transfer knowledge resources, enhance individual skills, and provide constructive feedback without any conflict between individuals. Teamwork is a significant factor for the seamless and smooth functioning of an organization craving growth and development. It promotes innovation and creativity, as members with novel ideas, knowledge, perspicacity, and skills share with team members, thereby leading to an avenue for growth and enhanced task completion time. Peters (1982) averred that real teamwork in every organizational setting helps to establish performance effectiveness to improve productivity in the firm. It facilitates collective problem solving; when colleagues work together objectively, it provides an avenue for them to leverage their shelves of

skills and experience to reach better and greater results compared to individual efforts alone. Employee effectiveness can only be reached or realized at its best when all the working elements of the organization perform together that calls for teamwork (Twesigye et al. 2024).

In obvious terms, teamwork is a crucial and essential tool for employees' performance, growth, productivity, and optimum goal delivery in every economy's workforce, which underscores the significance of this study. It's also worthy of note that employee performance is the driver of organizational effectiveness; the human elements of every organization drive all other resources that keep an organization in a functional state or status. According to Okoh *et al.* (2023), cited in Uzor & Onyemere (2024), human resources (workers) are the vital resources of every organization; as such, they have the potential to make or mar an organization. Akpoyibo (2024) posited that employees' performance is vital to a firm's general success. A firm may acquire abundant physical resources without the efficient contributions of its human resources (employees); all other resources will be inactive. Employees are considered essential resources as a result of their significant role in organizational effectiveness. Twesigye et al. (2024) affirmed that employee effectiveness has been regarded as an eventual effect of an enterprise as well as an employee. Therefore, the performance of employers as it relates to goal delivery is somewhat crucial to the service delivery capacities of organizations. This current study aims to evaluate the interplay between these two variables—factors, that's open communication and teamwork—and their collective effect on workers' ability to reach optimum goal delivery. Apparently, by directing attention on selected manufacturing firms in Nigeria, this study will add value and provide actionable/valuable insights into how

organizational effectiveness might be up-scaled/enhanced by optimizing this practice. This research work is structured to take the form below. Section two focuses on a review of related literature on the employee performance nexus, teamwork, and open communication. The third part presents the study methodology, data, and variable used and model specification. While the fourth section provides clear and unambiguous interpretation and discussion of the model and results, the final part is devoted to conclusion, recommendation, limitations, and suggested areas for future study.

Objective of the study

The researcher's general objective is to assess the correlation between teamwork and employee optimum goal delivery among selected manufacturing firms in Nigeria. While the specific objective is to:

- i. Determine whether teamwork has a significant influence on employee goal optimum delivery.

Research Questions

To facilitate the realization of the above state objective, the following research question was designed.

- i. Does teamwork contribute to employee optimum goal delivery?

Statements of Hypotheses

The following hypotheses would be used in reaching conclusion on the significance of the variables

H_{01-null}: Teamwork has no positive and significance correlation with employee optimum goal delivery.

H_{01-alternative}: Teamwork has a positive and significance correlation with employee optimum goal delivery

Review of Related Literature

Employee Performance

Employee performance is very strategic and significant to every organization's survival because they drive every other resource of the organization. Employee performance has been described by diverse scholars in separate literature, according to J. A. (2007), who considered employee performance as an eventual effect of an organization as well as an employee. Thus, the term has itself been deliberated in the literature, as described by some of the writers/authors, to mean a result generated/achieved by the employees in relation to the roles and expectations that have been given or attached to them. At some other instances, literature has considered it, according to Bommer (2007), as an achievement/accomplishment of an enterprise's objectives and goals via the building blocks of the organization. Employee performance can only be achieved at its best when all the working elements of the organization perform together, which calls for teamwork (Twesigye et al. 2024). Employee performance across the board plays a critical part in a firm's effectiveness, impacting different aspects of the firm's success and effectiveness. It enhances firms' profitability, productivity, competitiveness, and process improvement as well. Employee performance is associated with the physical, behavioural, and cultural results or outputs of people or an individual that align with firm goals and objectives in order to secure appraisal/assessment and acceptance. Without mincing words, organizational successes and glory rest largely on its human element (employee) and their performance, which result from creativity, initiatives, modernization, and greater levels of responsibility and obligation (Thomas & Feldman, 2010; Gilboa, 2008; & Kieffer, 2004). Some studies also posited that there is a wide range of individual benefits that emanate from employee performance. Employee performance, according to Chen

and Wei (2020), is practically the results/outputs of an individual's engagement with an organization both in terms of quantity and quality with the objectives and goals of carrying out their duties and obligations. In a broader perspective, performance can be grouped into two categories: individual performance and team or organization performance, which portray the outcome of individual performance within a team or organization (Chen and Wei, 2020). In particular, Guan & Frenkel (2019) averred that employee performance refers to the output/result of an employee working within a specific enterprise or firm, striving to reach targets or goals set by the enterprise.

Teamwork and Employee Performance:

The Nexus

Teamwork and employee performance have a commendable degree of correlation in relation to organizational effectiveness and competitiveness. In other words, when workers in the organization effectively collaborate and cross-fertilize ideas, they usually achieve greater levels of productivity, creativity, and innovation. This synergistic alliance not only improves individual employee performance but also equally promotes a motivated and positive work climate that encourages and promotes ongoing improvement. Teamwork involves shared duties, responsibility, collaboration, and mutual support, which promote efficiency and goal delivery (achievement). Studies have emphasized that firms that give priority attention to teamwork witness enhanced productivity, profitability, competitiveness, motivation, and job satisfaction among workers. Abdulle & Aydintan (2019) posited that teamwork exerts a high degree of positive and significant influence on employee performance. The duo also posited in another facet that firms around the world are coming to terms with the significance of teamwork and how it results in greater effectiveness

within their organizations. This further stresses the pivotal role and impact of teamwork on employee efficiency and a firm's overall performance. Khan and Mashikhi (2017) posited from their study that teamwork has a significant positive impact on employee performance in the banking sector. Their finding is in congruence with that of Okoh et al. (2023), Manzoor *et al.* (2011), Kemanci (2018), and Hartenian (2003). In another facet, Agarwal & Adjirackor (2016) opined that firms have the opportunity to increase their workers effectiveness by enhancing the quality and capacity of their teams, which will in return enhance the performance level and efficiency of their workers.

Empirical Review

Uzor & Onyemere (2024) assessed the impact of teamwork on employee performance in the Nigerian banking sector. The study adopts the field survey via the adoption of cross-sectional analysis, and a sample size of 200 respondents drawn from Guaranty Trust Bank in Lagos Mainland, Nigeria, took part in the study. Data were generated via the use of a questionnaire specifically designed for the study. The statistical tools used to analyze the primary data include the mean and standard deviation, and SPSS software version 16.0 was deployed for hypothesis testing. The findings revealed that teamwork plays a crucial role in enhancing employee performance and organizational productivity. The study therefore recommended that management of GTB Plc should organize regular team-building activities and engagement to foster stronger interpersonal connections among employees, enhancing trust and collaboration.

Twesigye et al. (2024) investigated the effect of teamwork on employee performance. It was carried out among SMEs in Kampala. The study used a descriptive research design, and data was gathered from 50 respondents

which constitutes the study sample size. A case study design was used to select a sample size of 50 respondents and Purposive and Simple random sampling procedures were used, questionnaire was employed to elicit responses from respondents, the study found that teamwork has a positive correlation with employee performance. The study therefore concludes that the worker productivity increases when team members promote effective communication in the organization. The study recommended that to guaranty effective team work among the employees, there should be a greater balance between employees' needs and organizational needs organization.

Al Salman & Hassan (2016) analyzed the influence of teamwork on employee effectiveness. The study was conceived to determine whether positive correlation exist between teamwork and employee performance. By adopting the descriptive and explanatory research design, primary data were generated from 107 respondents. The instruments used for the study was structured after the 5points Likert scale. Data collected were analyzed by means of descriptive mean, standard deviation and percentages and regression was perfected via SPSS version 20. Findings from the study established a positive and significant correlation between teamwork and employee performance.

Ndekile et al. (2024) assessed the influence of teamwork on project performance among private construction firms in Nigeria. The study was designed to examine the contributions of teamwork to project execution effectiveness. Relying on stratified sampling methods, data were obtained from 654 selected respondents. Data generated was analyzed by means of descriptive and inferential statistics, and the result revealed a significant correlation between teamwork and project outcome. That's teamwork contribute to project execution efficiency and quality

Mohammad & Shahid (2017) investigated the affinity between teamwork and employee performance in selected financial institutions. Relying on quantitative techniques, questionnaire were distributed to 210 selected respondents for the purpose of eliciting desire information for the study formulated hypotheses. Prior to the administration of the study instrument, it was piloted tested with overall Cronbach's alpha reliability value of .728. Data obtained were analyzed by means of SPSS, multiple regression models was specified and implemented and the result indicated teamwork has a positive impact on employee effectiveness.

Material and Methods

This study adopted the quantitative correlational research design to evaluate the correlation between teamwork, open communication, and employee optimum goal delivery. This was found useful for the study because it allows the researcher to obtain both quantitative and qualitative information needed from target respondents. Primary data were gathered via a 12-item questionnaire specifically designed to obtain information on the effect of teamwork and open communication on employee optimum goal delivery. That's to note whether or not teamwork and open communication contribute to employee performance in goal delivery. The instrument was tailored after the 5-point Likert-type scale. A sample of 252 respondents was randomly selected from the study selected manufacturing frims which include Lafarge Africa Plc, Meyer Plc, Chemical and Allied Product Plc, Premier paint Plc, Portland paints and Product Plc, and a questionnaire was thereafter administered to them. From the 252 questionnaires administered, two hundred and two (202) were completed and returned and found usable for the research. The 50 missing copies of the distributed questionnaire were occasioned by circumstances such as 27 not

being properly attended to, 20 copies not being able to be found, and while 3 were mutilated, hence they couldn't form part of the study. However, prior to the distribution of the questionnaire instrument, it was pilot tested using the Cronbach's Alpha Test. This was imperative to establish the internal consistency of the study questionnaire items. Table 1 therefore presents the result of the Cronbach Alpha Test. As shown, the number of scaled items in the questionnaire was 14. This is made up of the 4 items designed to elicit information on the demographic

characteristics of the respondents, and 10 items were set aside to generate reactions on the basic subject of the research. That's teamwork, open communication, and employee optimum goal delivery. The alpha coefficient generated from the examination of reliability was 0.8637, which is above the 0.70 threshold. Given the result obtained, it suggests that the research instrument is internally consistent and reliable. The outcome of the test of internal consistency of the instrument is shown in Table 1 below.

Table 1: Test for Internal Consistency

Diagnostics		Stat.
Ave. Interterm Cov.		
No of Scaled Items		14
Reliability Coefficient		8637

Source: Field Survey, 2025.

Table 2: Demographics of the respondents

S/N	Variables	Categories	Frequency(N=202)	Percentage(%)
1.	Gender	Male	129	63.86%
		Female	73	36.14%
		Total	202	100.0%
2.	Marital Status	Married	189	93.56%
		Single	9	4.46%
		Others	4	1.98%
		Total	202	100%
3.	Age Range	18-35years	60	29.70%
		36-45years	83	41.09%
		46-55years	39	19.31%
		56years and above	20	9.90%
		Total	202	100%
4.	Work Status	Work		
		Full-time Empl.	137	67.82%
		Part-time Empl.	50	24.75%
		Contract/Ad-hoc Empl.	15	7.43%
	Total	202	100%	
5.	Work Experience	1-5years	40	19.80%
		6-10years	48	23.76%
		11-15years	52	25.74%
		16-20years	27	13.37%
		21-25years	20	9.90%
		26years and above	15	7.43%
	Total	202	100%	

Source: Field Survey, 2025.

Apparently, in Table 2, the demographic information and characteristics of respondents were presented, and it was discovered that 129 (63.86%) and 73 (36.14%) were male and female, respectively. In the facet of age range of respondents, it was found that 60 (29.70%),

83 (41.09%), and 39 (19.31%) fall within the age range of 18-35 years, 36-45 years, and 46-55 years, respectively, while 20 (9.90%) were 56 years and above. On the basis of marital status, it was discovered that the vast majority of respondents were married (189, 93.56%),

with a very small number who were single (9, 4.46%). Those that fall into the categories of others, which include separated, divorced, or cohabiting, were 2 (1.98%). On the facet of work status of respondents, it was discovered that 137, representing 67.82% of the total sample, fall within the categories of full employment, while 50 (24.75%) and 15 (7.43%) represent respondents on part-time and ad-hoc employment, respectively. For years of experience on the job, it was found

that a large number of respondents (52), representing 25.74%, have about 11-15 years of experience, closely followed by 48 (23.76%) and 40 (19.80%), which lucidly established that respondents have spent about 6-10 years and 1-5 years in manufacturing firms. While 27 (13.37%), 20 (9.90%), and 15 (7.43%) have respectively spent about 16-20 years, 21-25 years, and 26 years and above in the manufacturing industry.

Model Specification

$$Employee\ Optimum\ goal\ delivery = f(HRM\ Practices)$$

eq. 1

In an attempt to test formulated hypotheses of the study, the following models were subsequently developed as shown algebraically as follows:

Model 1

$$EmpOGD = f(TeamWk)$$

eq. 2

$$EmpOGD = \alpha_0 + \beta_1 TeamWk + \mu_t$$

eq. 3

Variable Description

<i>EmpOGD</i>	=	Employee Optimum goal delivery
<i>TeamWk</i>	=	Teamwork
α_0, β_1	=	Regression coefficients of the model
μ_t	=	Error term.

Test of Hypotheses and Discussion

Hypotheses I

H₀₁: *Teamwork has no positive and significance correlation with employee optimum goal delivery.*

Table 3: Model Summary for Test of Hypothesis One

EmpOGD	Coeff.	Std.Err.	T	P>| t |	Decision
TeamWk	0.3876	0.0959	3.39	0.000	Reject
_CONS	2.2318	0.3205	7.28	0.000	
Obs.	202				
F(1, 210)	10.63				
Prob > F	0.0018				
R-Squared (R ²)	0.7966				
Adj. R ²	0.6773				

Source: Field Survey, 2025.

This study hypothesis 1 was tested by assessing the impact of teamwork on employee optimum goal delivery in the selected manufacturing firms in Nigeria. That’s how teamwork contributes to employee’s ability to contribute maximally to the organizational progress. Table 3 therefore

shows the outcomes of the test of Hypothesis of the study. The result indicated that the t-values obtained for teamwork (TeamWk) is 3.39 with a corresponding 0.000 (*p-value*). This outcome established copiously that teamwork in the selected manufacturing firms has a positive and significant correlation with

employee optimum goal delivery. That's to say, teamwork contributes maximally to employee ability towards optimum goals delivery. With an adjusted R^2 of 0.6773, it is apparent that only the explanatory variable accounts for 67% of changes in the level of employee performance in goal delivery within the studied firms, with a corresponding R^2 value of 0.79% while the standard error value stood at 0.0968. With such plausible values obtained, it's an attestation that the model specified and subsequently developed in this research followed by the regression result is not only accurate but also very reliable. Again, 10.63 and 0.0018 are the obtained values for the study F_{cal} for the overall model and for the corresponding p-value, respectively. Arising from the above result, therefore, the null hypothesis is rejected. The finding is in congruence with the findings of prior research, *see* Uzor and Onyemere (2024), Ndekile et al. (2024), Mohammad & Shahid (2017), and Al Salman & Hassan (2016)

Summary of Correlation Analysis

Results from the study indicated a firm and strong positive relationship between teamwork and goal delivery ($r = 0.79$, $p < 0.05$). Apparently, the lucid influence of teamwork significantly impacts a firm's efficiency and effectiveness. Indeed, the aim of this correlational evaluation is to provide sterling empirical proof (evidence) on the effect of teamwork on worker optimum goal delivery in the study domain. We expect the result to support and contribute to academic literature, practical administration, and management policies and strategies in the Nigerian manufacturing sector.

Implications of Results

Findings of the study highlight the necessity for manufacturing firms to commit appreciable levels of resources in investment in synergistic and collaborative work climates strategies to up-scale and maximize workers

capabilities and firm's effectiveness. Teamwork fosters knowledge resource sharing, sense of trust, confidence, and acceptance among employees, leading to enhanced innovation and creativity for the benefit of both workers and organizations as well.

Conclusion and Recommendations

This study assessed the impact of teamwork on employee optimum goal delivery among manufacturing firms in Nigeria. While this study agrees that previous studies have established the significance of up-scaling employee performance efficiency and factors that contribute to such optimum goal delivery in the organization, the quest to understand the correlation between teamwork and employee optimum goal delivery potential therefore prompted this present study. By relying on primary data gathered via the deployment of a self-structure questionnaire, information was generated from 202 respondents and analyzed by relevant statistical techniques. The postulated hypotheses were examined at a 5% significant level via the F-statistics. As a result of the outcome generated from the study, the null hypotheses was rejected, resulting in an inference that the study's independent variable (teamwork) has a positive influence on the dependent variable (employee optimum goal delivery). That's to say, teamwork foster a high level of employee performance, commitment, and motivation. It leads to wide-range of acceptance, trust and confidence among employees, and promote innovation, creativity, effective knowledge resource sharing and building enduring workforce.

Recommendations

The outcome/result of this study confirmed that teamwork significantly contribute to employee goal delivery in manufacturing firms. It showed a strong positive correlations. On the basis of this findings, the study

recommends, among other things, that firms should give priority attention to team-building activities, and provide training and development programs to further boost interpersonal, knowledge-sharing, and collaborative skills among workers in the workplace.

Suggestions for Future Study

To further broaden the body of literature, the study suggested that further research can assess and explore industry-specific dynamics and carry out longitudinal evaluations to

References

- Abdulle, A., & Aydıntan, B. (2019). The Effect of Teamwork on Employee Performance in Some Selected Private Banks in Mogadishu-Somalia. *Journal of Business Research ITurk*, 11(3), 1589H1598.
- Agarwal, S., & Adjirackor, T. (2016). Impact of Teamwork on Organizational Productivity in Some Selected Basic Schools in the Accra Metropolitan Assembly. *European Journal of Business, Economics, and Accountancy*, 4(6), 40–52. Retrieved from <http://www.idpublications.org/wp-content/uploads/2016/06/>
- Akpoiyibo, G. (2024). An appraisal of the effect of recruitment and selection and employment security on employees' performance intentions of LEADWAY Assurance Company. *Journal of Advances in Humanities and Social Sciences JAHSS*, 10(1): 1-9.
- Al Salman, W., & Hassan Z. (2016) "Impact of Teamwork on Employee performance". *IJAMB International Journal*. Vol 4 (No 1), April, 2016.
- Chen X. & Wei S. (2020). The impact of social media use for communication and social exchange relationship on employee performance, *Journal of Knowledge Management* 24, (6), 1289–1314, <https://doi.org/10.1108/JKM-04-2019-0167>.
- Cohen, S., & Bailey, D. (1999). What makes teams work: group effectiveness research from the shop floor to the executive suite. *Journal of Management*, 23(3), 239.
- Gilboa, S. F. (2008). A Meta-Analysis of Work Demand Stressors and Job Performance. *Personal Psychology*, 227-271.
- Guan X. & Frenkel S. (2019). How perceptions of training impact employee performance, *Personnel Review* 48, (1), 163–183, <https://doi.org/10.1108/PR-05-2017-0141>, 2-s2.0-85053406630.
- Hartenian, L.S. (2003), Team member acquisition of team knowledge, skills, and abilities. *Journal of Team Performance Management*, 9(2), 23-30.
- J. A., & S. B. (2007). Trust, Trustworthiness and Propensity.

measure the long-term effect of teamwork on employee productivity and its corresponding impact on organizational overall productivity, competitiveness, and effectiveness. Additionally, this research is limited to selected firms in the manufacturing industry in Nigeria; as such, it may affect the generalizability of outcomes/results. Therefore, future research should be conducted to expand the scope to integrate other sectors and/or geographical locations or regions.

The Journal of Applied Psychology, 174- 182.

Jones, A., Richard, & B., P. D. (2008). Effectiveness of teambuilding in organization. *Journal of Management*, 5(3), 35-37.

Kemanci, G. (2018). Investigating the Impact of Esprit De Corps/Team Spirit on Employees Performance in the University of Abuja Teaching Hospital, Gwagwalada, Abuja. *Nile Journal of Business, and Economics (NileJBE)*, (April), 36–47. Retrieved from <http://journal.nileuniversity.edu.ng/index.php/NileJBE/>

Khan, D. S., & Mashikhi, M. L. S. Al. (2017). Impact of Teamwork on Employees Performance. *International Journal of Education and Social Science*, 4(11), 14–22. <https://doi.org/10.5296/bms.v6i11.7804>

Kieffer, S. &. (2004). The person-environment fit & employee outcomes. Dissertation, 19.

Ndekile, P. C., Ugwuanyi, W., & Okoh, J. (2024). Impact of teamwork on project performance in the Nigerian Construction Industry: A linear Model Approach, *African Banking and Finance Review Journal*, 8(8), 84–102. Retrieved from <http://www.abfrjournal.com/index.php/abfr/article/view/132>.

Manzoor, S. R., Ullah, H., Hussain, M., & Ahmad, Z. M. (2011). Effect of Teamwork on Employee Performance. *International Journal of Learning and Development*, 1(1), 110–126. <https://doi.org/10.5296/ijld.v1i1.1110>

Mohammed & Shahid R. (2017): Effect of Team Work on Employees' Performance (The Empirical Assessment of bank sector, Afghanistan). *International Journal for*

Innovative Research in Multidisciplinary Field ISSN – 2455-0620 3(1), 20-27

Okoh, J. I, Majinyawa, A.A, Amahi, F,U & Chukwuto, N (2023). Effect of E-performance appraisal on employee productivity in the financial industry: A study of commercial banks in Maiduguri, Borno Sate. *African Banking and Finance Review Journal*, 2(2), 137-152.

Peters, T. J. (1982). In search of excellence. New York: Harper & Row.

Thomas & Feldman. (2010, February 22nd). Organizational Tenure and Job Performance. *Thomas & Feldman*, 2008, 36(5), 1220-1250.

Twesigye, N., Shadrack, N., Godfrey, K., Luckious, A., & Collins, N. (2024). The Effect of Teamwork on Employee Performance among Small and Medium Enterprises in Kampala. A Case Study of Exquisite Solution Limited. *International Journal of Academic Multidisciplinary Research (IJAMR)*, Vol. 8 Issue 10; 335-345.

Uzor, K. A., & Onyemere, I. (2024). Investigating the Impact of Teamwork on Employee Performance in Guaranty Trust Bank Plc in Nigeria. *African Banking and Finance Review Journal (ABFRJ) International Open Access Journal* 11 (11). 81-93.



Modeling Market Microstructure and Time Series in Nigerian Exchange Limited

OMEHE Raphael

Department of Accounting and Finance
Faculty of Management Sciences,
University of Delta, Agbor, Delta State,
Phone Number: 08063310477

e-mail address: omeheralph@yahoo.com
omehe.raaphael@unidel.edu.ng

Dr. EYIDE Michael Ugeoritsete

Department of Accounting and Finance,
Faculty of Management Science,
University of Delta, Agbor
email: michael.eyide@unidel.edu.ng

Publication Date: 2025/06/30

Abstract

Microstructure data typically consist of trades and bid and offer quotes for financial securities that are collected at fine sampling intervals (often within the day). This paper reviews approaches taken to modeling these data. The emphasis is on techniques of stationary multivariate time series analysis: autoregressive and moving average representations of standard microstructure models, vector autoregressive estimation, random-walk decompositions and cointegration. The paper also discusses the challenges posed by irregular observation frequencies, discreteness and nonlinearity.

KEY WORDS: *Microstructure, Bivariate models, Inventory models, Univariate, Time-Series.*

Introduction

Market microstructure is the area of financial economics that focuses on the trading process. Factors both practical and academic are motivating research here. On the practical side, innovation in financial markets has resulted in increased trading volume in standard securities (stocks, bonds, etc.), creation of new types of securities, and greater experimentation with alternative trading mechanisms. From the academic perspective comes a fuller understanding of the role played by trading in the incorporation of new information into

security prices. Empirical work in the area has also benefited from the increasing availability of detailed transaction data.

Microstructure research seeks to address two sorts of questions. The first belong to the study of markets narrowly defined: how should transaction costs be estimated; what are the optimal trading strategies; and, how should markets be organized? The second and broader set of questions arises from the role that the market plays in price discovery (the incorporation of new information into the security price): how can we characterize the determinants of security value that we

loosely refer to as public and private information?

Ultimately these two types of questions are related. The organization of a market may affect the transactions costs, and therefore the net return to an investor, the valuation of the asset and the allocation of real resources (Amihud & Mendelson (1986).

Conversely, the characteristics of an asset (risk, return, homogeneity, divisibility) may favor certain holding patterns among investors and certain market structures (Grossman & Miller (1988).

Empirical microstructure analyses draw on three areas of knowledge. The first is comprised by the formal economic models of individual behaviour that offer substantive predictions about how observable variables should behave. The second area is statistical time series analysis. The third area concerns the "institutional realities: the actual procedures by which individuals and automated systems work to accomplish trades in a particular market.

The theoretical work in market microstructure has centered around several reasonably well-defined paradigms that serve as a common basis for variations. The evolution of thought on security transaction price behaviour has passed from basic martingale models, to non-informational cost models (order processing and inventory control paradigms), and finally to models that incorporate the distinctly informational and strategic aspects of trading. Although this paper will describe the intuitions behind these models, it does not present a rigorous discussion. O'Hara (1994) provides a comprehensive textbook discussion that establishes much of the economic background for this paper.

Present empirical work in microstructure is characterized by a wide diversity of techniques. Market data exhibit a panoply of features that are hostile to statistical modeling: complex dynamics, nonlinearities,

nonstationarities, and irregular timing to name a few. The impracticality of modeling all of these features jointly, in a specification that can also potentially resolve alternative economic hypotheses, leads to a multitude of more modest models that simply try to capture one or two phenomena relevant to the problem at hand.

To establish a common footing, however, the models considered in this paper are cast in the framework of linear multivariate time series analysis. Most of the statistical techniques discussed here were originally developed and applied to macroeconomic time series. (Lutkepohl (1993) & Hamilton (1994) are excellent textbook presentations. The reader approaching the present paper from a macro perspective will find most of the time series results familiar. But time series analysis is not a mechanical procedure, and the application of any technique to a new problem involves some reflection on the economics of the situation and the nature of the data.

Some issues that cause great difficulty in macro applications are conveniently absent in microstructure data: microstructure observations are exceedingly numerous and the fine time intervals over which the data are collected greatly mitigate the simultaneity induced by time aggregation. On the other hand, microstructure data often exhibit troublesome properties such as discreteness that rarely arise in macro analyses.

Literature Review

Simple Bivariate Models of Prices and Trades

The univariate price models described above are capable of exhibiting dynamics that reflect microstructure phenomena and can also capture the first dichotomy mentioned in the introduction, that between permanent (informational) and transient (market) effects. The models described in this section

encompass trades as well, with a view toward establishing the second important distinction, that between trade-related and -unrelated sources of price variation.

Inventory Model

Buyers and sellers in the simple bid-ask spread model are assumed to arrive independently and with equal probability. Let X_t denote the signed trade quantity, positive if the arriving trader buys from the dealer and negative if the trader sells. The cumulative quantity from time zero through time t is $L_t = \sum_{s=0}^t X_s$. In the paper that introduced the term "microstructure", Garman (1976) pointed out that as t increased, this sum would diverge, implying that the dealer bought or sold (net) an infinite amount. Real-world dealers face capital constraints, however, and would in any event avoid large positions due to risk-aversion. This motivates the need for some sort of inventory control or position management. The inventory control problem in classical microeconomics is one of specifying a restocking strategy subject to order and stock-out costs. The security market dealer, on the other hand has traditionally been supposed to achieve inventory control by shifting the quotes to elicit an imbalance of buy and sell orders. Formal models of this effect include Amihud and Mendelson (1980), Ho and Stoll (1981), O'Hara and Oldfield (1986) and Stoll (1978).

As an illustration, consider a generalization of the simple bid-ask spread model in which quote-setting is depends on the dealer's inventory position and incoming order flow depends on the quotes:

$$m_t = m_{t-1} + w, \quad q_t = m_t - b/I - I I_t = 11 - 1 - x,$$

$$x_t = -a(q_t - m_t) + v, \quad p_t$$

The first equation describes the random-walk evolution of the efficient price. The quotes are summarized by the quote midpoint (the average of the bid and ask

quotes), q_t . This is equal to the efficient price plus an inventory control component, where I_t is the dealer's inventory at the close of period t . Without loss of generality, the dealer's target inventory is assumed to be zero. The quote-midpoint equation specifies that with $b > 0$, the dealer lowers his price if he has a long position. The net demand, x_t , is driven by a price sensitive component ($a > 0$) and a random component. The usefulness of the quote position as an inventory-management tool is based on the demand price elasticity.

Since the dealer is assumed to be the counter party to all trades, the change in inventory is equal to the negative of the net demand. The transaction price is equal to the quote midpoint, plus a cost component ex_t . This cost is proportional to trade size: rather than quoting a bid and offer price, the dealer quotes a linear bid and offer schedule. A trader wanting to buy an amount J_x, I_t will be quoted an ask price of $q_t = q_t + cI_x, I_t$, and a trader wanting to sell will be quoted a bid price of $q_t = q_t - cI_x, I_t$. The trade innovation v_t is assumed to be serially correlated, and uncorrelated at all leads and lags with w_t .

The essential features of this model can be illustrated by examining the impulse response function for a particular set of parameter values. Let $a = 0.8$, $b = 0.04$ and $e = 0.5$, and consider the paths of price and inventory subsequent to a trade shock at time zero of $v_0 = 1$, i.e., a purchase of one unit from the dealer. These paths are graphed in Figure 2. The buy is associated with an immediate price jump due to the cost component. Reversion is not immediate, however, subsequent to the trade, the dealer has an inventory shortfall and must raise his quotes to elicit an incoming sell order. As the sell orders arrive (in expectation), the dealer resets the quotes to the initial level. The inventory path reflects the initial depletion caused by the purchase (from the dealer)

and the subsequent sales (to the dealer). At the end of the adjustment process, both price and inventory have completely reverted. There is no permanent price impact of a trade in this model because trades are independent of information.

This is entirely trade-driven. As in the simple bid-ask model, the buyer pays the half-spread cxr . The second term depends on the

$$s_t = p_t - m_t = cx_t - bI_{t-1} \quad (2.2)$$

The permanent component of the price change is Wr , which is due entirely to public information. The pricing error is:

$$s_t = p_t - m_t = cx_t - bI_{t-1} \quad (2.2)$$

dealer's previous inventory position. If the dealer happened to have an inventory surplus, the buyer's cost would be reduced. If both pr and Ir are observable, the model may be written as:

Formally, this is a bivariate vector autoregressive (VAR) model, with a contemporaneous recursive structure, which may be estimated directly by least squares. There is sufficient structure here to recover both w , and Sr from current and past observations.

Among the various sorts of microstructure data available, however, dealer inventory data are about the rarest. Implicit in these data are the dealer's trading strategies and trading profits, both of which are usually kept private. If Ir is not known, then inference must proceed solely from prices. On the basis of the univariate time-series representation of the price changes, the structural model is under-identified. Two important structural parameters are identified, however: the variances of the random-walk and pricing error components. Due to the paucity of inventory data, there are few analyses of pure inventory control models. In a U.S. S.E.C. (1971) study, Smidt presents some results for NYSE stock specialists based on daily positions and price changes. Ho and Macris (1984) estimate a transaction level model for an American Stock Exchange options specialist. Most recent studies allow for the possibility

of asymmetric information in addition to inventory control, and these are discussed below.

Asymmetric Information

The models considered to this point have assumed that all market participants possess the same information. This sort of public information may be thought of as instantaneous news releases, in response to which bid and offer quotes would adjust with no necessity of trading. The most important recent developments in theoretical microstructure, however, have been models that allow for heterogeneously informed traders. If a trade might be motivated by superior information, the occurrence of a trade (a public event in most models) will communicate to the market something about this private information. Some studies that initially addressed this phenomenon in microstructure settings are Bagehot (1971), Copeland and Galai (1983), Glosten and Milgrom (1985), Kyle (1985) and Easley and O'Hara (1987). O'Hara (1994, Ch. 3) provides an overview. A simple model of private information with fixed transaction costs can be given as:

$$m_t = m_{t-1} + w_t$$

$$\begin{aligned}
wI &= u + gxI \\
qt &= ml - l + ul \\
Pl &= q + ext
\end{aligned}
\tag{2.3}$$

Relative to the earlier models, the novelty here is in the random-walk innovation, WI . It is now composed of two components. The first, ul , is assumed to reflect updates to the public information set. The second, gxt , with $g > 0$, reflects the market's estimate of the information $\sigma_w^2 = \sigma_u^2 + g^2 \sigma_x^2$, e trade. For this component to be serially uncorrelated, it must be the case that x_t is serially uncorrelated, i.e., we are back to assuming that buy and sell orders arrive randomly. This model is a variant of one suggested by Glosten (1987).

Actual transaction prices are subject to a bid-ask spread related to the direction of the trade. There are two ways of interpreting the ext term in the price specification. First, if the magnitude of the trade is fixed, say $x_t \in \{-1, +1\}$, then c is one-half the bid-ask spread ($S/2$), with transactions occurring at the bid and offer prices ($q_t = qI - S/2$ and $qt = qI + S/2$). Alternatively, if trade size is continuous, then c gives the slope of the dealer's linear bid and offer schedule. The dynamic behaviour of prices and trades may be illustrated by the impulse response function based on parameter values $c = 0.5$ and $g = 0.2$, subsequent to an initial buy order of one unit ($xa = 1$). These are graphed in Figure 3. The initial price jump simply reflects the bid-ask bounce, but in contrast with the inventory control model, the reversion is not total. Of the initial 0.5 price jump, 0.2 is the $s_t = p_t - m_t = (c - g)x_t$

The pricing error is entirely trade driven. Relative to the simple bid-ask model with no private information, however, St is reduced by the information content of the

The return series is given by:

$$\Delta p_t = p_t - p_{t-1} = u_t + cx_t - (c - g)x_{t-1}
\tag{2.6}$$

content, which remains permanently impounded in the stock price. By assumption there are no serial dependencies in trades: the initial purchase engenders no subsequent order flow effects.

The evolution in the efficient price now reflects both public and private information components, so

which isolates the non-trade and trade-related components of the efficient price change. A useful summary measure of the relative importance of trades in explaining movements in the efficient price is the proportion

$$R_{w,x}^2 = g^2 \sigma_x^2 / \sigma_w^2
\tag{2.5}$$

The R^2 notation denotes the usual "proportion of total variance explained." This measure generalizes beyond the present model, and is a useful proxy for the extent of asymmetric information.

The private information effects in this model reflect the market's beliefs about the probabilistic structure of the private information, not the actual level of private information. That is, the price impact of a particular trade depends only on the market's general beliefs about extent and nature of private information, and not directly on the actual information possessed by the trader. A model of this sort cannot be used to identify, for example, illegal insider trades in a sample of data.

The pricing error is

trade, gxt . It is generally assumed that $c > g$ because the dealer is setting the half-spread to recover both information costs g and additional order processing costs.

If trades and prices are observable, this may be estimated directly. Early transaction-based estimations of trade impacts on price are Marsh and Rock (1986), Glosten and Harris (1988), and Hasbrouck (1988).

When trades are not observed, however, the inference must proceed solely on the basis of transaction prices. This model superficially resembles the simple bid-ask model considered in section 2.3. Like the earlier model, it possesses an MA(1) representation of the form (2.6). Here, however, the two parameters of the MA model $\{\theta, \sigma\}$ are insufficient to identify the four parameters of the structural model $\{c, g, \sigma^2, \theta\}$. The random walk variance is identified as before: $\sigma^2 = (1 + \theta^2) a^2$

Methodology

Vector Auto regressions (VARs)

A vector auto regression is a linear regression specification in which current values of all variables are regressed against lagged values of all variables. The inventory and asymmetric information models discussed in the last section, for example, can be specified as bivariate vector autoregressions. More general and flexible models can be obtained by extending the number of lags in estimation. VARs are relatively easy to estimate (least squares usually suffices) and interpret (via the impulse response functions or other transformations considered below). Their value in microstructure studies also rests,

$$y_t = e_t + B_1 e_{t-1} + B_2 e_{t-2} + \dots = B(L) e_t, \quad (3.1)$$

Where the e_t are serially uncorrelated homoskedastic increments with covariance¹ matrix Σ and L is the backshift operator, $L^j = \{ \}$ (Hamilton (1994) and Sargent (1987)).

$= a + g^2 a$. In contrast with the earlier model, however, we cannot assume that the pricing error is uncorrelated with the increment to the efficient price.

In summary, based on knowing the parameters of the return process for this model (autocovariances or, equivalently, the moving average parameters), we can compute the random-walk (implicit efficient price) variance. Neither the pricing error variance nor derived measures such as the spread, however, are identified in the absence of further restrictions. Unfortunately, neither of the two identification restrictions considered above is particularly attractive, as they involve a choice between suppressing all public information or alternatively all private information.

however, on their ability to characterize very general time series models. It is useful at this point to outline the assumptions underlying this generality, and also the ways in which they might be violated in microstructure applications.

The broad applicability of VARs ultimately rests on the World theorem. A zero-mean vector time series Y_t is said to be weakly stationary (covariance stationary) if the autocovariances do not depend on t , $E y_t y_{t-k}^T = r_k$. The World theorem states that a zero-mean weakly stationary nondeterministic process can be written as a convergent vector moving average (VMA) process (possibly of infinite order):

This is nothing more than the innovations representation of the process. This section assumes that the conditions of the World theorem are satisfied. The stationarity

assumption will be examined in greater detail in section 5.

Suppose that we are working with price changes and trades (as in the model of 2.4), so that the state vector is

$$y_t = \begin{bmatrix} \Delta p_t \\ x_t \end{bmatrix} \text{ and } e_t = \begin{bmatrix} u_t \\ v_t \end{bmatrix}; \text{Var}(e_t) = \Omega = \begin{bmatrix} \sigma_u^2 & 0 \\ 0 & \sigma_v^2 \end{bmatrix} \quad (3.2)$$

The orthogonality of the residuals is based on the economic assumption that contemporaneous causality flows from trade to the transaction price. This characterized all of the simple structural models discussed in the last section. It is easy to contemplate market structures in which this assumption

might be violated, but in many settings it is a reasonable approximation.

If all of the roots of the polynomial equation $\det(B(z)) = 0$ lie outside of the unit circle, then the VMA representation is said to be invertible, that is, it may be reworked to give a (possibly infinite) convergent VAR representation:

$$y_t = A_1 y_{t-1} + A_2 y_{t-2} + \dots + e_t = A(L)y_t + e_t. \quad (3.3)$$

In microstructure applications, the invertibility assumption is commonly violated by over differencing or cointegration. As noted in section 3.4, over differencing is a real possibility when the model involves inventories, but the data contain only trades (the first difference of the inventory). Cointegration arises when the state vector includes two or more price variables for the same security (like the bid

and ask quotes, or the transaction price and either quote), and is discussed further in section 8. All of the simple models discussed in the preceding sections may be represented in the form (4.3).

A minor inconvenience arises because all of the bivariate VAR models in the last section include a contemporaneous term on the right hand side:

$$Y_t = A_1 y_t + A_2 y_{t-1} + A_3 y_{t-2} + \dots + e_t;$$

It is easy to rework this into the form (4.3) by noting

$$Y_t = (I - A_1)^{-1} A_1 y_t + (I - A_1)^{-1} A_2 y_{t-1} + \dots + (I - A_1)^{-1} e_t;$$

2

Estimating the model in the form that includes the contemporaneous term is a convenient way of forcing orthogonality on the estimated residuals. Most econometric texts, however, employ the form (4.3), and this will be used here as well. There are several

ways of computing the VMA (4.1) from the VAR. Conceptually, the simplest procedure involves simulating the behaviour of the system subsequent to one-unit initial shocks (Hamilton (1974).

Analysis

Time

The microstructure models studied in the earlier sections were implicitly cast in real time, sometimes referred to as "calendar

time" by macro econometricians or "wall-clock time" by microstructure students. In the interest of simplicity we implicitly took the time subscript t in the usual sense, as an index of equally-spaced points in real time.

The stationarity assumptions necessary to support inference were assumed to hold with respect to this time index.

Timing considerations in actual markets, however, are considerably more involved. Markets do not usually operate continuously. The few that are in principle open twenty-four hours per day exhibit strong concentration of activity. Furthermore, trades usually take place at random times throughout the market session. This section discusses ways in which more realistic notions of time can be incorporated into statistical models.

Deterministic Time Considerations

Some of the time properties of markets appear to be deterministic, like the regular or predictable seasonalities encountered in macro time series. Two related examples in microstructure data are market closures and intraday patterns. In most markets, trading takes place continuously during organized trading sessions.

In between are periods of nontrading, typically over a lunch break, overnight, or over a weekend or holiday. If we are interested only in the behaviour of the market during a trading session, we may drop from the sample all observations that span trading sessions, e.g., we might ignore an overnight return. If the aim of the analysis is a comprehensive model of the market evolution during periods of trading and nontrading, however, the econometrician must first take a position on whether or not the market evolution is time homogeneous, i.e., whether prices (security values) behave in the same way during trading and nontrading periods. If homogeneity is assumed, then we are taking the view that the timing of the observations in our sample is merely an artifact of some sampling process that is not related to the behaviour of the system. Obviously for models in which trading plays a central role (such as those involving

asymmetric information), time homogeneity is not an attractive assumption.

In testing less refined hypotheses, however, the conjecture might be a workable approximation. This motivates consideration of how time homogeneity is empirically examined.

Most of what we know about the role of time in microstructure data derives from the analysis of price-change variances (rather than means). This reliance on second moment properties characterizes not only the analysis of trading vs. nontrading periods, but also most of the work done on intra-trading session evolution. The reasons for this emphasis are the ones raised in Section 2.1: if the price follows a random walk, the precision of variance estimates is improved by more: frequent sampling, the precision of mean estimates is not.

In U.S. equity markets, at least, the hypothesis that the return variance per unit time is constant over trading and nontrading periods is easily rejected (Fama (1965), Granger and Morgenstern (1970), Oldfield and Rogalski (1980) and Christie (1981)). Based on an analysis of returns computed using daily closing prices, French and Roll (1986) estimate that the return variance per unit time is at least an order of magnitude higher when the market is open than when it is closed. This is due in part to the fact that production of public information (such as news releases) is more likely to occur during normal business hours, but it is also due to the role of trading itself in the price discovery process.

As a general rule, microstructure data exhibit distinctive behaviour at the beginning and end of trading sessions. Most notably, return variances per unit time exhibit "U"-shapes, i.e., elevations at the session endpoints. Marked intraday patterns are also found in measures of trading activity such as transaction frequency, trading volume rates and bid-ask

spreads (Jain and Joh (1988), McInish and Wood (1990), McInish and Wood (1992) and Wood, McInish and Ord (1985)).

Stochastic Time Effects

Although trading processes unfold in continuous time, they are marked by discrete events (e.g., trades or quote revisions). The determination of these occurrence times is at least in part random. Ideally, then, how should these processes be modeled from a purely statistical perspective? Furthermore, what is the economic significance of the occurrence times? Specification of continuous-time models that allow for random intervals between events is difficult. There is a well-established literature on the analysis of irregularly spaced time series. (See Parzen (1984), Jones (1985), and the references therein.) It is commonly assumed in these models that the irregularity is a property of the observational process per se, i.e., that the underlying process evolves homogeneously in real time, and that the irregular observation times are either fixed or are at least exogenous to the evolution of the process. In microstructure applications both of these assumptions are problematic, the former on account of intraday volatility patterns and the latter for reasons yet to be discussed. Nevertheless, this approach does achieve an appealing unity in capturing the discrete and continuous time aspects of a simple model. Furthermore, the techniques used to specify and estimate these models may yet be generalized to more complicated and realistic situations. From an economic perspective, time deformation in market data is usually assumed to result from variation in the "information intensity" of the market, the rate at which the informational primitives (public and private signals) evolve. This is difficult to operationalize because these primitives, with the exception of sharply defined events like press conferences, are

rarely observed. Also, in most theoretical models, the informational primitives are exogenous, implying that the resulting time deformation would also be exogen. Other economic considerations, however, strongly suggest endogenous time effects. A market-maker, for example, might diminish the frequency of incoming order arrival simply by widening the bid-ask spread. This sometimes occurs in response to a particularly significant informational announcement. In this instance, the econometrician relying on trade frequency as a proxy for informational intensity will draw exactly the wrong inference. Easley and O'Hara (1992), Easley, Kiefer and O'Hara (1993, 1994) and Easley, O'Hara and Paperman (1995) discuss these effects and suggest empirical tests. Strategic quote-setting behaviour that can also lead to trade frequency effects is discussed by Leach and Madhavan (1992, 1993).

5. Conclusion And Recommendations

From a statistical perspective, the current state of the art falls considerably short of a plausible comprehensive model of transactions data. But statistical models in this area must be ultimately judged by their implications for the economic questions. From an economic perspective, the standing questions are those of how information enters market prices, how traders should behave (private welfare) and how markets should be organized (social welfare). Studies of trade-price behaviour have yielded a modest understanding of the first issue. It is an empirical fact that trades seem to explain part but not all of price changes. This confirms the existence of private information and establishes the importance of trading for the revelation or incorporation of this information. Answers to the other two fundamental questions, however, remain elusive. Trading strategy in most markets remains the province of human judgment,

guided by experience and intuition, beyond the limits of existing normative models, even outside the realm of most ex post performance measurement excepting that of the roughest sort ("Did our investment strategy make money, net of trading costs?"). Nor have academic efforts to define economically efficient trading arrangements been particularly successful. While we have garnered greater insights into the workings of existing markets, we have yet to create yardsticks capable of ranking potential alternative arrangements. No consensus on these questions among academics, practitioners and regulators has yet emerged. It is certainly to be hoped that improved econometric models will provide useful in sign.

Recommendations

Incorporating realistic time effects into microstructure models is a difficult task that is likely to call forth more and better research efforts. But if time *per se* is not the focus of a particular analysis, the econometrician needs to match the method to the immediate problem and the data. For investigating broad hypotheses about intraday patterns in market data and associations in these patterns, it appears sufficient to rely on data aggregated over fixed time intervals (e.g., hours). For investigating causal relations (such as trade price impacts) that would be obscured by aggregation, the econometrician should lean toward modeling the data purely in event time, intuition of the formal time deformation approach: the "clock" of the process is assumed to be events.

Summary and Directions for Further Study

This paper has attempted to provide an overview of the various approaches to modeling microstructure time series. Rather than recapitulate these developments, it is

perhaps more useful to return to the questions that motivated them. It was claimed in the introduction that microstructure models can potentially examine both narrow questions of trading behaviour and market organization and also broader issues of valuation and the nature of information. The present paper has focused, however, almost exclusively on the former. This emphasis can be justified on the grounds that any study using market transaction data must employ methods that reflect the market realities. But as a practical matter the economic importance of security valuation and the implications for the allocation of real assets almost certainly outweighs the welfare improvements that might result from modest changes in the trading mechanisms for most securities. It is therefore appropriate to briefly indicate the some of the ways in which microstructure studies can illuminate aspects of corporate finance.

The classic event study measures the impact of a public information event by the associated change in the security price. The insight of the asymmetric information models is that when the "event" is a trade, the price reaction summarizes the market's estimation of the private information behind the trade. Studies of the price impact of trades, the spread (under certain assumptions), or the summary $R_{i,t,x}$ measure introduced in section 3.2 thereby broadly characterize the market's beliefs about the magnitude of information asymmetries. Since these beliefs cannot usually be measured directly, the window offered by microstructure data may well be the only vantage point. Recent studies that explore asymmetric information in the vicinity of corporate announcements include Foster and Viswanathan (1995) (takeover announcements) and Lee, Mucklow and Ready (1993) (earnings announcements). Neal and Wheatley (1994)

discuss the asymmetric information characteristics of closed-end mutual funds.

REFERENCES

- Amihud, Y., & Mendelson, H. (1986). Asset pricing and the bid-ask spread. *Journal of Financial Economics*, 17(9), 223-49.
- Amihud, Y., & Mendelson, H. (1987). Trading mechanisms and stock returns. *Journal of Finance*, 42(6), 533-53.
- Amihud, Y., & Mendelson, H. (1991). Volatility, efficiency and trading: evidence from the Japanese stock market. *Journal of Finance*, 46, 1765-89.
- Amihud, Y., & Mendelson, M. (1980). Dealership market: market making with inventory. *Journal of Financial Economics*, 8(4), 31-53.
- Bagehot, A. (1971). On the dynamics of behaviour of prices in disequilibrium. *Journal of Finance*, 35(6), 235-48.
- Christie, A.A. (1981). On efficient estimation and intra-week behaviour of common stock variances, Working Paper, University of Rochester.
- Copeland, T., & Galai, D. (1983). Information effects and the bid-ask spread. *Journal of Finance*, 38(7), 1457-1469.
- Easley, D., & O'Hara, M. (1987). Price, size and information in securities markets. *Journal of Financial Economics*, 19, 69-90.
- Fama, E. (1970). Efficient capital markets: a review of theory and empirical work. *Journal of Finance*, 23(4), 23-57.
- Fama, E.F. (1965). The behaviour of stock market prices. *Journal of Business*, 38(8), 34-105.
- French, K.R., & Roll, R. (1986). Stock return variances: The arrival of information and the reaction of traders. *Journal of Financial Economics*, 17(4), 5-26.
- Garman, M. (1976). Market microstructure. *Journal of Financial Economics*, 3(4), 257-275.
- Glosten, L. (1987). Components of the bid-ask spread and the statistical properties of transaction prices, *Journal of Finance*, 42(8), 1293-1307.
- Glosten, L., & Harris, L. (1988). Estimating the components of the bid-ask spread. *Journal of Financial Economics*, 21(4), 123-142.
- Glosten, L.R. & Milgrom, P.R. (1985). Bid, ask and transaction prices in a specialist market with heterogeneously informed traders. *Journal of Financial Economics*, 14(6), 71-100.
- Glosten, L.R., & Harris, L.E. (1988). Estimating the components of the bid-ask spread. *Journal of Financial Economics*, 21(5), 123-42.
- Granger, C.W.J., & Morgenstern, O. (1970). Predictability of stock market prices, (Heath-Lexington, Lexington, MA).
- Grossman, S.J., & Miller, M.H. (1988). Liquidity and market structure. *Journal of Finance*, 43(6), 617-33.
- Hamao, Y., & Hasbrouck, J. (1995). Securities trading in the absence of dealers: Trades and quotes on the Tokyo Stock Exchange, Review of Financial Studies, forthcoming.
- Hamilton, J.D. (1994). Time Series Analysis, (Princeton University Press, Princeton).
- Harris, L. (1990). Statistical properties of the Roll serial covariance bid/ask spread estimator. *Journal of Finance*, 45(9) 579-90.
- Ho, T.S.Y., & Stoll, H.R. (1981). Optimal dealer pricing under transactions and returns uncertainty. *Journal of Finance*, 28(4), 1053-1074.
- Jain, P.C., & Joh, G.H. (1988). The dependence between hourly prices and trading

- volume. *Journal of Financial and Quantitative Analysis*, 23(5), 269-83.
- Jones, R.H. (1985). Time series analysis with unequally spaced data, in E.J. Hannan, P.R. Krishnaiah and M.M. Rao, eds., *Handbook of Statistics, Vol. 5, Time Series in the Time Domain*, (Elsevier Science Publishers, Amsterdam).
- Karlin, S., & Taylor, H.M. (1975). *A first course in stochastic processes*, (Academic Press, New York).
- Kyle, A.S. (1985). Continuous auctions and insider trading, *Econometrica*, 53, 1315-1336.
- Leach, J.C., & Madhavan, A.N. (1993). Price experimentation and security market structure. *Review of Financial Studies*, 6(7), 375-404.
- Lehmann, B., & Modest, D. (1994). Trading and liquidity on the Tokyo Stock Exchange: A bird's eye view. *Journal of Finance*, 44(8), 951-84.
- Madhavan, A., & Smidt, S. (1993). An analysis of changes in specialist inventories and quotations. *Journal of Finance*, 48(6), 1595-1628.
- Marsh, T., & Rock, K. (1986). The transactions process and rational stock price dynamics, Working Paper, University of California at Berkeley.
- McInish, T.H., & Wood, R.A. (1990). A transactions data analysis of the variability of common stock returns market. *Journal of Finance*, 39(9), 1127-1139.
- Samuelson, P. (1965). Proof that properly anticipated prices fluctuate randomly, *Industrial Management Review*.
- Sargent, T. J. (1987). *Macroeconomic theory*, second edition, (Academic Press: Boston). U.S. Securities and Exchange Commission, 1971, during 1980-1984. *Journal of Banking and Finance*, 14, 99-112.
- McInish, T.H., and R.A. Wood, 1992. An analysis of intraday patterns in bid/ask spreads for NYSE stocks. *Journal of Finance*, 47(9), 753-64.
- Merton, R. (1980). Estimating the expected rate of return. *Journal of Financial Economics*, 8(4), 323-62.
- Naik, N., Neuberger, A., & Viswanathan, S. (1994). Disclosure regulation in competitive dealership markets: analysis of the London Stock Exchange, Working Paper, London Business School.
- Neal, R., & Wheatley, S. (1994). How reliable are adverse selection models of the bid-ask spread, Working Paper, Federal Reserve Bank of Kansas City.
- O'Hara, M., & Oldfield, G.S. (1986). The microeconomics of market making. *Journal of Financial and Quantitative Analysis*, 21(5), 361-76.
- Oldfield, G.S., & Rogalski, R.J. (1980). A theory of common stock returns over trading and non-trading periods. *Journal of Finance*, 37(8), 857-870.
- Parzen, E. (1984). *Time series analysis of irregularly observed data*, (Springer-Verlag, New York).
- Roll, R. (1984). A simple implicit measure of the effective bid-ask spread in an efficient Institutional Investor Study Report (Amo Press, New York).
- Stoll, H.R. (1978). The supply of dealer services in securities markets, *Journal of Finance*, 33(7), 1133-1151.
- Wood, R.A., McInish, T.H., & Ord, J.K. (1985). An investigation of transactions data for NYSE stocks. *Journal of Finance*, 40(8), 723-39.



International Public Sector Accounting Standards Adoption and the Quality of Financial Reporting in Nigeria

ONWUKA Mercillina Nkeonye¹

AKAKABOTA Edward Eta Ph.D²

Delsu Business School, Asaba,
Delta State University, Abraka, Nigeria
E-mail onwukamercy123@gaill.com
GSM: +2348023568540

Publication Date: 2025/06/30

Abstract

The development of any accounting system requires consideration of the underlying purpose of that system. In Nigeria, government accounting processes have been conducted within the general framework of the principles of fund accounting but the application of these principles to financial reporting has been a major challenge. This study examined the implications of adoption of International Public Sector Accounting Standards on the quality of financial reporting of public sector in Delta State. Primary source of data and regression statistical tool was employed. Findings revealed that International Public Sector Accounting Standards adoption would increase the level of accountability of financial reporting of public sector organisations. In addition, it was found that applying International Public Sector Accounting Standards would make the results of financial reporting of public sector organisations more transparent. The study concludes that the International Public Sector Accounting Standards have the potential to give a better financial integrity assurance. The study recommends reforms in the public financial management and strengthening of legislative capacity to balance the executive power. Therefore, the adoption of International Public Sector Accounting Standards is expected to influence the operating procedures and reporting practices of public sector in Nigeria.

Keywords: *International Public Sector Accounting Standards; Financial reporting; Public sector; Accountability; Transparent reporting*

Introduction

In recent years, improving the quality of government financial reporting has remained a top priority worldwide, particularly in emerging countries such as Nigeria. The lack of openness, full representation, accountability, comparability, relevance and trustworthiness in financial reporting has historically led to criticism of the caliber of financial reporting generated by public sector organizations. Inconsistencies, a lack of comparability, and the limited utility of

financial reports for stakeholders, including investors, legislators, and the general public have frequently resulted from traditional public sector accounting processes. Organizations in the public sector has been criticized for falling short of international best practices. On the other hand, a number of accounting scandals, including corruption, embezzlement, inadequate accountability, and inadequate infrastructure development, have emerged as a result of the public sectors' poor

financial reporting quality in Nigeria (Oluwagbuyi & Olowolaju, 2022).

The incapacity to compare government accounts with those of the private sector, or even to compare the financial statements of two nations or even two states within the same nation, or to compare municipal governments within the same state. The production of government financial statements using a cash basis is another significant challenge. Transparent reporting is hampered by government financial statements that do not include asset values and, in fact, do not compute depreciation. Lack of essential accounting data for financial reporting using the cash basis. In the meantime, the main goal of financial reporting is to give enough financial details about an entity's economic existence as well as pertinent data that can be used to make decisions (Saleh, et al., 2021).

The International Accounting Standard Board (IASB, 2019) states that financial reporting should give users valuable information about an entity's financial status so they can make informed financial decisions. To regulate government accounting in light of the aforementioned, the International Public Sector Accounting Standards Board (IPSASB) released a set of accounting standards known as International Public Sector Accounting Standards (IPSAS). At its meeting on July 28, 2020, the Federal Executive Council (FEC) gave its approval for Nigeria to implement the International Public Sector Accounting Standards (IPSAS) rules.

Regardless of the entity, the main objective of financial reporting is to demonstrate the entity's accountability for the services entrusted to it and to offer information that will be helpful to a wide range of users in making and reviewing decisions about resource allocation. The accrual accounting system is the only way to achieve these objectives. The long-term economic impact of political actions on financial statements is

reflected in accrual accounting methods. Cash accounting simply cannot do this. Thus, the main motivation behind IPSAS for public sector financial reporting has been the necessity for the creation of a uniform accounting standard.

With the exception of the commercial public sector, all Public Sector Entities (PSEs) worldwide are permitted to use IPSAS when preparing their financial accounts. The overarching goals of IPSAS are to increase financial accounting transparency, facilitate data comparison among companies, and establish consistent accounting standards for public sector organizations worldwide. This study will assist in assessing how much Delta State has benefited from the vast advantages of IPSAS for financial reporting, as well as how it has affected the caliber of financial reporting in the Delta State public sector. Thus, this study examines how IPSAS affects the caliber of public sector financial reporting.

Literature Review

International Public Sector Accounting Standards (IPSAS)

The International Public Sector Accounting Standards (IPSAS) started in the 1980s when the International Federation of Accountants (IFAC) established the Public Sector Accounting Committee (IPSAC) in 1989 to develop accounting standards for the public sector. In 1999, IFAC established the International Public Sector Accounting Standard Board as a separate entity to develop and issue IPSAS, a set of high-quality accounting standards issued by the International Public Sector Accounting Standard Board (IPSASB), an independent organ of the International Federation of Accountants (IFAC), for use by public sector entities worldwide in the preparation of financial statements.

With an emphasis on international standards and best practices, IPSASB launched a new era in public sector accounting in 2000 with

the release of the first standard, IPSAS 1 "Presentation of financial statements." From 2000 to 2010, IPSAB developed and issued a number of IPSAS, including standards on revenue recognition, asset recognition, and disclosure requirements. Currently, there are 44 accrual basis International Public Sector Accounting Standards (IPSAS). The IPSASB also established a thorough outreach and consultation process to make sure the standards satisfied the needs of users and implementers. As IPSAS gained recognition and acceptance, countries and organizations started adopting the standards, and today, over 100 countries have adopted or are in the process of doing so.

The Federal Executive Council (FEC) at its meeting of 28th July, 2020 approved that Nigeria should adopt the provisions of the: International Financial Reporting Standards (IFRS) and International Public Sector Accounting Standards (IPSAS). IFRS have been credited with providing a more transparent and accurate financial overview of listed companies around the world, using accrual accounting as approved to cash accounting. The overall objective of IPSAS is to have uniform standards for accounting at public sector organization around the world, to enable comparison of data across organizations and improve financial accounting transparency.

IPSAS have the following benefits: to build confidence of donor agencies, improves service delivery, enhances Public-Private Partnership (PPP), boots peer review mechanism of financial reports among the three tiers of government and government of other countries, other benefits of adoption are better access to financing through either bond releases or international financing from organizations such as the International Monetary Fund and the World Bank. Delta State government fully transited into IPSAS accrual in 2017.

Financial Reporting

Communication of financial statements and other relevant financial data from a company or organization to its stakeholders and other information consumers is known as financial reporting. Providing high-quality information about reporting organizations that is utilized for economic decision-making is the primary goal of financial reporting. According to Egolum et al. (2021), financial reporting is the official procedure of disclosing a company's financial activity. For any market player, it has been seen as a vital resource. Financial reporting is the process that culminates in the compilation and presentation of financial reports pertaining to the organization as a whole, for use by parties both internal and external to the enterprise.

Financial reporting is the process by which a business or organization communicates its financial statements and other pertinent financial data to its stakeholders and other information consumers. The main objective of financial reporting is to provide high-quality information regarding reporting entities that is used for economic decision-making. Egolum et al. (2021) see financial reporting as the formal process of revealing a business's financial operations. The process of compiling and presenting financial reports about the entire organization for use by stakeholders both inside and outside the company is known as financial reporting.

Theoretical Framework

The theory of agency-principal This hypothesis was the basis for this inquiry and relates to a concept that is used to explain the interaction between the Principal and his Agent. In essence, the principal supplies and employs his agent to make certain financial decisions and transactions on his behalf. The Principal, the agent's line manager, employs the agent. In the public sector, "agency theory" refers to the study of the relationship between a principal (such a government

agency or elected politician) and an agent (like a government employee or contract). The term "agency dilemma" refers to situations in which the decisions made by the agent (elected officers) may be detrimental to the principal (citizens) because they do not advance common interests; however, increasing transparency and accountability - for example, by making public financial information available under specific desired characteristics - is one way to persuade politicians to act in the best interests of their constituents (Jensen & Meckling, 1976). This would allow the owner to control the agent and provide incentives or penalties as necessary. Agency theory examines the link between agents (employees/public servants) and principals (government/public) and how it impacts responsibility (Parker et al., 2018; Gordon et al., 2020).

Empirical Studies

Saleh et al. (2021) looked at the problems and difficulties associated with putting International Public Sector Accounting Standards into practice. Examining previous research and information on the difficulties and barriers faced by different developing nations while implementing IPSAS was the research's methodology. According to the study's findings, there are three categories of challenges that countries face while putting IPSAS into practice:

Resource limitations include a lack of qualified finance and accounting staff, as well as inadequate IT infrastructure and support; accounting and reporting issues related to the intricacies of revenue, expense, liability, and asset recognition and quantification; and executive leadership commitment to ensuring successful change management initiatives. The research revealed that the obstacles encountered during the implementation of IPSAS in developing nations are remarkably alike and can be grouped into the mentioned challenges.

The effects of accounting reform and the adoption of IPSAS in Greece were examined by Chytis et al. (2020). By distributing a questionnaire to elected officials in charge of financial management and reporting as well as officers and employees in the finance departments of 325 Greek municipalities, a survey research methodology was used. The research data were analyzed using both descriptive and inferential statistics. Additionally, it was determined that Greek municipalities are not ready for the adoption of IPSAS and the accounting reform. All things considered, Greece is in an early stage, with delays in the implementation of implemented measures. The report suggested reforming all aspects of public administration, including regulators, standard-setters, and institutions.

The use of International Public Sector Accounting Standards in Nigeria was investigated by ThankGod et al. (2021). The study used a literature evaluation of earlier research. According to their literature research, the need to determine the extent of IPSAS acceptance and implementation in Nigeria as well as the need to create globally standardized accounting standards served as the impetus for this investigation. IPSAS has become a major force in the worldwide government accounting scene amid requests for increased financial accountability and transparency in government. The Federal Executive Council of Nigeria approved the adoption in July 2010, and it went into effect. Adedeji (2024) investigated how the quality of financial reporting in South Western Nigeria and the adoption of IPSAS were mediated or moderated by contingency considerations. The public service in the six states of southwest Nigeria is the main subject of the study. The study has 400 respondents in total, with the majority of the respondents being public sector professionals such as accountants and auditors. A well-structured survey was made and disseminated. The

structural equation modeling result revealed that IPSAS implementation influence the caliber of financial reporting is largely determined by contingency factors within the sample states.

Elugom and Onyeka (2023) investigated how IPSAS affected public sector accountability. The researcher directly collected data from the sampled respondents using a questionnaire. The generated data was analyzed using straightforward tables of the percentages. The results showed that IPSAS adoption has raised openness in the public sector and greatly enhanced accountability. In summary, the public sector now has a higher degree of responsibility and value relevance thanks to the adoption of IPSAS.

John et al. (2023) explored the relationship between IPSAS implementation and financial reporting quality in Cross River State, Nigeria. Survey research design and purposive sampling method were adopted. The population considered in this study was made up of middle and top-level management staff of Cross River State Ministry of Finance, totaling 35. Primary data were collected through administering questionnaires to a sample of 19 respondents who were accountants in the Ministry of Finance. Simple Percentage and Pearson correlation were used as data analysis techniques. The results of the analyses indicated that IPSAS implementation has a significant positive relationship with faithful representation and reliability of financial reports.

Bello et al. (2022) Centered on the effect of global public sector accounting standards on the financial reporting accuracy of public health institutions in Nigeria. A survey research design was chosen for the study to collect primary data effectively with the help of a carefully designed tool, enabling statistical analysis. The survey was created to collect information from experienced and informed employees regarding the impact of international public sector accounting

standards on the financial reporting accuracy of chosen federal health institutions in Nigeria. Analysis of variance and ordinary least square were utilized for inferential purposes. The study's results indicated a robust model with an R^2 of 93.4%, showing a high level of financial reporting quality in the chosen FHIs, primarily influenced by IPSAS, accruals, aggregation, and materiality in the Financial Statements.

Similarly, Tawiah (2022) use large panel data of 107 developed and developing countries to examine the impact of the International Public Sector Accounting Standards (IPSAS) adoption on governance quality. The results show that IPSAS has a positive and significant influence on governance quality, suggesting that IPSAS ensure accountability and transparency between the government and its citizens. Findings provide empirical evidence to policymakers and regulators in pursuing global harmonization of governmental accounting through adopting IPSAS, especially in developing countries.

Since its adoption in 2014, Edwin et al. (2020) have studied the impact of International Public Sector Accounting Standards (IPSAS) on public sector accountability and transparency in Nigeria. Using the analytical discourse technique, a qualitative study of the agencies in the five states of southeast in Nigeria was conducted. The study found that IPSAS implementation has not resulted in accountability and transparency. Also, the study discovered that the fundamental elements for a complete adoption of IPSAS include political will, the use of accrual bases of accounting, and internet facilities, all of which were deficient in our study area.

Nzewi and Faith (2020) determined effect of international public sector accounting standards (IPSAS) on Delta State ministry of finance. A sample of one hundred and eighty five (185) was drawn from a population of three hundred and forty three (343) staff from Delta State Ministries, Departments and

Agencies (MDAs). Data obtained was analyzed using five point likert's scale and the formulated hypotheses were tested. From the analysis of the data the adoption of International public sector accounting standards leads to accountability and transparency among public officers in the ministry.

Research Methods

In this study, cross-sectional survey research design method was adopted. The study was carried out in Delta State public service with selection of three key ministries where application and practice of accounting is more

dominant. The three ministries were Ministry of Finance, Office of the Accountant General, and Ministry of Economic Planning, Asaba, Delta State. The target population for this study is employees of the three ministries.

Using proportional method, a sample size of two hundred and seven (207) was employed and questionnaire containing closed-ended questions were used. The questionnaire was designed on a 5-point scale of strongly agree, agree, disagree, undecided and strongly disagree. The items of questionnaire were tested for reliability using Cronbach Alpha method with coefficients as shown below:

Table 1: Cronbach Alpha Results

Variables	Nature of Variables	No of Items	Coefficients
IPSAS Accountability	Independent	5	0.5110
IPSAS Transparency	Independent	5	0.5316
IPSAS Comparability	Independent	5	0.4988
Quality of Financial Reporting	Independent	5	0.4251

Source: SPSS Output from Fieldwork, 2025.

Furthermore, the following empirical models were used in ascertaining the relationship between IPSASs and quality of financial reporting

$$FRQ = f(IPSAS) \tag{1}$$

$$FRQ = f(IPSAS AC, IPSAST, IPSASCOM) \tag{2}$$

$$FRQ = \beta_0 + \beta_1IPSAS_i + \beta_2AC_i + \beta_3IPSAST_i + \beta_4IPSASCO + \mu_i \tag{3}$$

Where: FRQ = Financial Reporting Quality; IPSASAC = IPSAS Accountability; IPSAST = IPSAS Transparency; IPSASCOM = IPSAS Comparability; $\beta_1 - \beta_4$ = Coefficient of independent variables; μ = Error term

Results

Table 2: Demographic Profile of Respondent

Profile	Frequency	Percentage
Gender		
Female	73	37
Male	127	63
Total	200	100
Age		
25-30	69	18.8
31-40	86	27.5
41-& above	55	16.6
Total	200	100
Marital Status		
Single	60	37.7
Married	100	38.3
Divorced	20	6.1
Widowed	20	6.1
Total	200	100
Working Experience		
10-15 years	78	29
16-25 Years	67	22
26-30 Years	38	12
31-& Above	29	11
Total	200	100
Area of Specialization		
Accountant	127	75.
Auditor	72	25
Total	200	100
Educational Qualification		
Diploma	63	35.5
First Degree	102	51
Master	32	16
PhD	13	28.2
Total	200	100
Professional Body		
ICAN	66	33
ANAN	41	20
CITN	34	17
ACCA	59	30
Total	200	100

Source: SPSS Output from Fieldwork, 2025.

Table 2 reveals that 127(63%) of the respondents were male as against 73(37%) of their female counterparts. This indicates that there are more male than females in the selected ministries. It shows that 69 respondents, representing 20.8% between 25-30, 86 representing 28% were within the ages of 31-40, 55 representing 17% were within the ages of 41 above. The numbers of respondents aged between 31 and 40 are the highest which implies that there are more of matured youths in the ministry.

Furthermore, it shows clearly that there are more married respondents than single ones. 60 (37.7%) of the respondents are single, 100(38.3%) are married, 20(6.1%) are divorced while the remaining 20(8.3%) are widowed. This implies that most of the respondents are married. This means that the selected public servants are marital responsible. The results shows that 78 representing 24.3% has 10-15years, 67 representing 29.7% had worked for 16-25 years, 38 representing 12% had worked for 25-30years representing 29 (12.1%) of the workers had put in above 31 years.32; this

implies that most of the selected worker being matured adults with good working experience; thus, validating their level of responsibility towards their jobs.

The result reveals that 128 (62%) of the respondent are accountants while 72(38%) are auditors. This implied that the sampled ministries have good numbers of accountants and auditors that can ascertain the impact of IPSAS on financial report quality in the public sector. The result shows that, 63(35.5%) of the respondents had diploma qualification, 102(51%) of the respondents had first degree qualification, while 32(29.4%) of the respondent had Master Degree and 13(8.2%) had PhD. It could be noticed that majority of the respondents had good educational background thereby putting them in a position to give the right answers to the diverse questions contained in the questionnaire. Out of the 200 respondents, 59(29.%) had ACCA qualification , 41(20.5%), ANAN qualification 34 (17.%) and CITN and 66 (33%). However, it was found that majority of the respondents had ICAN.

Table 3: Accountability of IPSAS and Quality of Financial Reporting

S/ N	Survey Question	Options	Frequency	Percentage	Mean	Remark
1	IPSAS adoption implementation enhances government functionaries to be accountable on the management of the public assets.	Strongly disagree	43	21.5	2.77	Not Sig.
		disagree	68	34		
		Disagree	10	5		
		Undecided	49	24.5		
		Agree	30	15		
		Strongly Agree				
2	Accountability helps to guarantee users of financial statement that the accounting information provided accurately represents the economic value of the organization.	Strongly disagree	20	10	3.71	Sig.
		disagree	21	10.5		
		Disagree	8	4		
		Undecided	99	49.5		
		Agree	52	26		
		Strongly Agree				
3	Accountability enhances auditors to assure investors and donors that the organization's funds are properly managed.	Strongly disagree	42	21	3.41	Sig
		disagree	12	6		
		Disagree	16	8		
		Undecided	82	41		
		Agree	48	24		
		Strongly Agree				
4	Accountability enhances disclosure of cost of funding programs and activities.	Strongly disagree	3	1.5	3.86	Sig
		disagree	30	15		
		Disagree	20	10		
		Undecided	85	42.5		
		Agree	62	31		
		Strongly Agree				
5	Accountability enables investors to rely more on the public sector financial statement prepared in line with IPSAS.	Strongly disagree	21		4.2	Sig
		disagree	32			
		Disagree	8			
		Undecided	100			
		Agree	39			
		Strongly Agree				

Source: Analysis of Field Survey, 2025.

Financial reporting is a communication of financial statements and related information from a business enterprise to third parties (external users). The main objective of financial reporting is to provide high-quality information on reporting entities, which can be used for sound economic decisions making (IASB, 2010). The result for IPSAS adoption

implementation enhances government functionaries to be accountable on the management of the public assets, shows that 43 respondents strongly disagree, 68 respondents disagree, 10 respondents undecided and 49 respondents agree while 30 respondents strongly agree. The mean response 2.7 implies that the sampled

respondents disagree with the claim that IPSAS adoption implementation enhances government functionaries to be accountable on the management of the public assets.

From Table 3, Accountability helps to guarantee users of financial statement that the accounting information provided accurately represents the economic value of the organization shows that 20 respondents strongly disagree, 21 respondents disagree, 8 respondents are undecided and 99 respondents agree while 52 respondents strongly agree. The mean response of 3.7 implies that the respondents agreed with claim that Accountability helps to guarantee users of financial statement that the accounting information provided accurately represents the economic value of the organization. The result for Accountability enhances auditors to assure investors and donors that the organization's funds are properly managed shows that 42 respondents strongly disagree, 12 respondents disagree, 16 respondents undecided and 82 respondents agree while 48 respondents strongly agree with mean response of 3.41 showing that the sampled

respondent agreed that Accountability enhances auditors to assure investors that the organization's funds are properly managed.

The result for accountability enhances disclosure of cost of funding programs and activities shows that 3 respondents strongly disagrees, 30 respondents disagree, 20 respondents are undecided and 85 respondents agree while 62 respondents strongly agree. The mean response 3.86 implies that respondents agreed that accountability enhances disclosure of cost of funding programs and activities. The result in Table 3 reveals that accountability enables investors to rely more on the public sector financial statement prepared in line with IPSAS shows that 21 respondents strongly disagree, 32 respondents disagree, 8 respondents undecided and 39 respondents agree while 100 respondents strongly agree. The mean response 4.12 shows that the respondents agreed with the claim that Accountability enables investors to rely more on the public sector financial statement prepared in line with IPSAS.

Table 4: IPSAS Transparency and the Quality of Financial Reporting

S/n	Scale Items	Options	Frequency	%	Means	Remark
1.	Financial reports are presented annually as required by regulatory bodies of accounting	Strongly disagree	18	9	3.71	Sign.
		Disagree	30	15		
		Undecided	6	3		
		Agree	84	42		
		Strongly Agree	62	31		
2	IPSAS adoption will communicate value relevant to beneficiaries of financial reporting.	Strongly disagree	30	15	3.56	Sign.
		Disagree	23	11.5		
		Undecided	10	5		
		Agree	78	39		
		Strongly Agree	59	29.5		
3	The organization annual report extensively provides prompt information on corporate governance issue to the public.	Strongly disagree	23	11.5	3.66	Sign.
		Disagree	26	13		
		Undecided	20	10		
		Agree	58	29		
		Strongly Agree	73	36.5		
4	IPSAS adoption make the financial reports to be more comprehensive and relevant to the users.	Strongly disagree	31	15.5	3.72	Sign.
		Disagree	35	17.5		
		Undecided	8	4		
		Agree	62	31		
		Strongly Agree	64	32		
5	IPSAS adoption enhances the implementers and preparers of financial statement to meet up with reporting requirements deadlines.	Strongly disagree	47		2.49	Not Sign.
		Disagree	62			
		Undecided	19			
		Agree	40			
		Strongly Agree	32			

Source: Analysis of Field Survey, 2025

The result on financial reports is presented annually as required by regulatory bodies of accounting. as presented in Table 4 shows that 18 respondents strongly disagree, 30 respondents disagree, 6 respondents undecided and 84 respondents agree while 62 respondents strongly agree with mean responses of 3.71 implies that the respondents agreed with the claim that Financial reports are presented annually as required by

regulatory bodies of accounting. The result on IPSAS adoption will communicate value relevant to beneficiaries of financial reporting in table 4.4.2 indicated that 30 respondents strongly disagree, 23 respondents disagree, 10 respondents are undecided and 78 respondents agree while 59 respondents strongly agree with mean responses of 3.82 which signifies that the respondents agreed with the claim that IPSAS adoption will

communicate value relevant to beneficiaries of financial reporting

The result on organization annual report extensively provides prompt information on corporate governance issue to the public in Table 4 shows that 23 respondents strongly disagree, 26 respondents disagree, 20 respondents are undecided and 58 respondents agree while 73 respondents strongly agree. The mean response of 3.16 indicated that the respondents agreed with the claim that the organization annual report extensively provides prompt information on corporate governance issue to the public. The result on IPSAS adoption makes financial reports to be more comprehensive and relevant to the users in Table 4 revealed that 31 respondents strongly disagree, 35 respondents disagree, 8 respondents

undecided and 62 respondents agree while 64 respondents strongly agree.

The mean responses of 3.72 imply that respondents agreed with the claim that IPSAS adoption make the financial reports to be more comprehensive and relevant to the users. The result on IPSAS adoption enhances the implementers and preparers of financial statement to meet up with reporting requirements deadlines in table 4.4.2 revealed that 47 respondents strongly disagree, 62 respondents disagree, 19 respondents undecided and 40 respondents agree while 32 respondents strongly agree. The mean response 2.49 indicates that the respondents disagreed with the claim that IPSAS adoption enhances the implementers and preparers of financial statement to meet up with reporting requirements deadlines.

Table 5a: Model Summary on IPSAS Adoption and Financial Report Quality

Model	R	R Square	Adjusted R Sq.	Std. Error of Est.	Durbin-Watson
1	.984 ^a	.968	.967	1.31845	2.153

Source: Analysis of Field Survey, 2025

Table 5b: ANOVA Summary on IPSAS Adoption and Financial Report Quality

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16064.794	5	3212.959	1.84883	.000 ^a
	Residual	533.660	307	1.738		
	Total	16598.454	312			

Source: Analysis of Field Survey, 2025

Table 5c: Regression Coefficients on IPSAS Adoption and Financial Report Quality

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-.641	.294		-2.180	.030
IPSAS ACCOUNTABILITY,	-.029	.041	-.028	-.712	.007
IPSAS TRANSPARENCY	-.151	.044	-.127	-3.400	.001
IPASA COMPARABILITY	-1.346	.109	-1.072	-10.439	.000

Source: Analysis of Field Survey, 2025

From the result summary as presented above, $R = 0.984$ $R^2 = 0.968$ $Adj R = 0.967$ F -statistics = 1.8488, $P = 0.000$. The result showed significant relationship between IPSAS Adoption and the quality of financial reporting, R^2 of 0.968 means that 96.8% variation in the quality of financial reporting is as a result of changes in application of IPSAS in public sector accounting system. All the independent variables except IPSAS comparability which showed strong negative correlation between the dependent variable. All variable are significant and negatively correlate with quality of financial reporting of public sector ($P .566 > 0.05$) are significant at 95 % level of significant but negatively correlate with quality of financial reporting. This showed that there is statistical significant relationship between IPSAS and quality of financial reporting. IPSAS accountability ($P 0.022 < 0.05$, $-.521$) though significant has negative relationship with quality of financial reporting. Also the result revealed that IPSAS transparency ($P 0.001$, 151) has significant and positive relationship with quality of financial reporting.

The F statistics (1.8488) which show the group significance of the variables shows that

all the explanatory variables are jointly statistically significant in explaining the change in the the quality of financial reporting and the Durbin-Watson stat 2.153 show the absence of serial correlation of the independent variables. There is a robust and significant relationship between IPSAS Adoption and quality of financial reporting of Public Sector in Delta State.

A simple linear regression analysis was carried out to investigate relationship between IPSAS accountability on quality of financial reporting of Public Sector in Delta State. As expected, the results of the regression as shown in Tables 4.6.1 and 4.6.2 indicated that IPSAS accountability are accounted for approximately 84% of the variance in the quality of financial reporting of Public Sector in Delta State ($R^2 = .845$, $F (5.29) = 311$, $p = .000$). Table 6b showed that IPSAS accountability contributed positively and significantly to the regression model. Specifically, the results showed a negative and significant relationship between IPSAS accountability on quality of financial reporting of Public Sector in Delta State, $\beta = -1.068$, $p < .05$.

Table 6a: Model Summary on IPSAS Accountability

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.872 ^a	.845	.844	1.72019

Source: Analysis of Field Survey, 2025

Table 6b: Regression Coefficients on IPSAS Accountability and Financial Report Quality

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.430	.283		-8.580	.000
	IPSA ACCOUNTABILITY	-1.068	.015	.972	-72.790	.000

Source: Analysis of Field Survey, 2025

From our decision rule, $R^2 = 0.845$ is greater than 0.40 hence there is a significant relationship between IPSAS accountability on quality of financial reporting of public sector and P-value $0.00 < 0.05$, hence we reject H_0 and accept the alternative, H_A which state that IPSAS accountability has significant effect on the quality of financial reporting of public sector. This implies that identified IPSAS accountability indicators has significant positive relationship with the quality of financial reporting of public sector. Furthermore, this study corroborate with the study carried Toyemi, Sunday and Ibitoye (2022) who considered the effect of IPSAS on accountability and transparency selected states in Nigeria and found that the implementation of IPSAS has positive effect on accountability and transparency as well as the relevance of financial reports. The study also conform with Enyinna, Eke and Ajobor (2023) that IPSAS has a significant impact on the disclosure of financial information,

transparency, and accountability in public sector financial reporting in E do State and that IPSAS has a significant influence on the comparability of financial reports

A simple linear regression analysis was carried out to investigate the impact of IPSAS Transparency on quality of financial reporting of Public Sector in Delta State. As expected, the results of the regression as shown in Tables 4.6.3 and 4.6.4 indicated that IPSAS Transparency on accounted for approximately 76% of the variance in IPSAS the quality of financial reporting of Public Sector in Delta State ($R^2 = .766$, $F(8.29) = 311$, $p = .000$). Table 4.5.3 shows that IPSAS Transparency contributed negatively and significantly to the regression model. Specifically, the results showed a negative and significant relationship between IPSAS Transparency and the quality of financial reporting of Public Sector in Delta State, $\beta = -1.040$, $p < .05$.

Table 7a: Model Summary on IPSAS Transparency and Financial Report Quality

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.783 ^a	.766	.746	1.34088

Source: Analysis of Field Survey, 2025

Table 7b: Regression Coefficients on IPSAS Transparency and Financial Report Quality

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.975	.204		4.776	.000
	IPSAS TRANSPARENCY	-1.040	.011	.983	-94.450	.000

Source: Analysis of Field Survey, 2025

From our decision rule, $R^2 = 0.766$ is greater than 0.40 hence there is a significant relationship between and IPSAS Transparency and the quality of financial reporting of public sector in Delta State and P-value $0.00 < 0.05$, hence we reject H_0 and accept the alternative H_1 , which state that IPSAS Transparency had no significant effect on the quality of financial reporting of public sector. This implies that level of IPSAS Transparency will determine the quality of financial reporting of public sector in Delta State.

The implication of this result is that, management should pay close attention to level of IPSAS Transparency because it has the high positive relationship with the quality of financial reporting of public sector which means it could substantially reduce the quality of financial reporting of public sector, while other factors will decrease it if the objective of improving the quality of financial reporting of public sector is to be achieved entirely. This means that overall; IPSAS Transparency has positive impact on the quality of financial

reporting of public sector. This is consistent with the study conducted by Alkhanbbaz and Suresh (2023) that investigated the impact of the adoption of IPSAS on the relevance of financial information in the public sector of India and posited that that a positive relationship exist between the adoption of IPSAS and relevance of financial information in India and concluded that the adoption of IPSAS promotes the relevance of financial information in the Indian public sector.

A simple linear regression analysis was carried out to investigate the impact of IPSAS Comparability on the quality of financial reporting of public sector. As expected, the results of the regression as shown in Tables 4.6.5 and 4.6.6 indicated that IPSAS Comparability accounted for approximately 85% of the variance in quality of financial reporting of public sector ($R^2 = .851$, $F(6, 311)$, $p = .000$). Table 4.5.5 shows that IPSAS Comparability contributed negatively and significantly to the regression model. Specifically, the results showed a negative and significant relationship between IPSAS

Comparability and the quality of financial reporting of Public Sector in Delta State, $\beta = -1.012$, $p < .05$.

Table 8a: Model Summary on IPSAS Comparability and Financial Report Quality

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.875 ^a	.851	.851	1.61795

Source: Analysis of Field Survey, 2025

Table 8b: Regression Coefficients on IPSAS Comparability and Financial Report Quality

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.410	.232		1.771	.078
	IPSAS Comparability	-1.012	.013	.975	-67.651	.000

Source: Analysis of Field Survey, 2025

From our decision rule, $R^2 = 0.851$ is greater than 0.40 hence there is a significant relationship between IPSAS Comparability and the quality of financial reporting of Public Sector in Delta State and since P-value $0.000 < 0.05$, we reject the null hypothesis (H_0) and accept the alternative hypothesis, (H_1) which state that IPSAS Comparability has a significant impact on quality of financial reporting. The implication of this result is that, management should pay close attention to .This means that overall, IPSAS Comparability has positive impact on the quality of financial reporting of public sector. This finding is supported by the result of the work of Abata and Suara (2022) who posited that before the adoption of IPSAS, the financial statements of local governments in Lagos state were not comparable, timely and understandable; but, following the adoption of IPSAS, the financial reporting quality of local governments with respect to timeliness, comparability and understandability improved.

This study is equally consistent with the work of Olaru (2023) and Beredugo (2021); whose study revealed a positive association between IPSAS Adoption and quality of financial reporting.

Conclusions and Recommendations

This study examined the implications of adoption of International Public Sector Accounting Standards (IPSAS) on the quality of financial reporting of public sector organisations in Nigeria. From the findings of the study, it was observed that adoption of IPSAS is expected to increase the level of reliance on public sector financial reporting in Nigeria. It was established that IPSA based standards will enable the provision of more meaningful information for decision makers and improve the quality of financial reporting system in Nigeria. In addition, it was found that the accrual-based IPSAS has the potential to give a better financial integrity assurance compared to cash or modified cash based

accounting. The study affirmed that with IPSAS, budget and accounting categories at the national level could have a common set of classifications that conform to international standards that facilitate policy analysis and promote accountability. From the result and findings of the present study, the study recommends:

- (i) That the state government should implement practical and adequate reforms in public sector management to transfer to the accrual basis of accounting feasibly. Therefore, Nigerian government needs to improve the existing financial management mechanism and policy to enable the implementation of accrual-based accounting.

References

- Abata, M. A., & Lamidi, O. (2020). The effect of adoption of international public sector accounting standards on general purpose financial statements in the public sector: A case study of local governments/local council development areas in Lagos state. *Journal of Policy and Development Studies*, 12(2), 59-65.
- Adedeji, Z. A. (2024). IPSAS adoption and financial reporting quality in public sector of the south western Nigeria: assessment of the mediating role of contingency factors, *American Journal of Humanities and Social Sciences Research*, 8(2), 21-35.
- Ahmad Imam, D., Aliyu, Y., & Tahir, F. A. (2020). International public sector accounting standard and implementation challenges in Yobe State, Nigeria. *Journal of Business and Management*, 22(12), 12-20.
- Bello, A. O., Ishola, J. O. & Raheed, L. O. (2022). The Influence of International Public Sector Accounting Standards (IPSAS) on Financial Reporting Quality of Public Health Institutions in Nigeria, *Journal of Accounting and Financial Management*, 8(4), 37-59
- In addition, there is need to train high qualified and professional accountants as well as building and developing accounting information system together with information technology.
- Finally, since the financial reporting system in Nigeria will improve with the adoption of accrual based IPSA standards and the implementation of IPSAS in the operation and procedures of public sector organisation will be beneficial in terms of accountability and transparency, the researcher recommends the adoption of International Public Sector Accounting Standards
- Beredugo. S. B. (2021). International public sector accounting standards implementation and financial reporting: Issues and challenges in South-East Nigeria. *Journal of Accounting and Taxation*, 1(1), 1-11
- Chytis, E., Georgopoulos, I., Tasios, S., & Vrodou, I. (2020). Accounting reform and IPSAS adoption in Greece. *European Research Studies Journal*, 23(4), 165-184.
- Duenya, M. I., Upaa, I. U., & Tsegba, I. N. (2017). Impact of international public sector accounting standards adoption on accountability in public sector financial reporting in Nigeria. *Archives of Business Research*, 5(10), 41-56.
- Edwin, I., Fab, O., Christopher, O. U., Felicia, O., Sylvia, A., Chuka, U., & Christian, E. (2020). Implementation of international public sector accounting standards and transparency & accountability in the public sector. *International Journal of Finance and Accounting*, 9(3), 67-76.
- Efuntade, A. O. (2019). The effects international public sector accounting standards implementation on public sector financial management in Ekiti

- State, Nigeria. *American International Journal of Business Management (AIJBM)*, 2(12), 01-10.
- Egolum, P. U., & Ndum, N. B. (2021). The effect of international public sector accounting standards on financial reporting quality of Anambra state public sector. *International Journal of Management, Social Sciences, Peace and Conflict Studies (IJMSSPCS)*, 4(3), 51- 67.
- Elugom, U. F. & Onyeka, E. E. (2023). Impact of IPSAS adoption on the quality of financial reporting (a study of the office of accountant general of the federation), *Sapientia Global Journal of Arts, Humanities and Development Studies*, 6(4), 313- 330.
- Ijeoma N.B, (2014) The Impact of IPSAS on Reliability, Credibility and Integrity of Financial Reporting in State Government Administration in Nigeria. *Journal of Technology Enhancements & Emerging Engineering Research Vol 2, Issue 3, 2014.*
- Ijeoma, N. B., & Oghoghomeh, T. (2014). Adoption of IPSAS in Nigeria: Expectations, benefits, and challenges. *Journal of Investment and Management*, 3(1), 21-29.
- John, E. I., Ofem, E. L., Ajayi, S. O. & Nwankwo, O. (2023). International public sector accounting standards (IPSAS) implementation and financial reporting quality in cross river state, Nigeria, Sustainability and Digitisation of Accounting and Finance for Development in Emerging Economies. Godfrey Okoye University, Ugwuomu-Nike, Emene, Enugu State, Nigeria 8th International Annual Academic Conference on Accounting and Finance, Feb. 14 & 15, 2023
- Jonas, G., & Blanchet, J. (2000). Assessing quality of financial reporting. *Accounting Horizons*, 14(3), 353-363.
- Nzewi, U. C., & Faith, E. (2020). Effect of adoption of international public sector accounting standards in the public sector of Delta State. *International Journal of Advanced Academic Research (Social and Management Sciences)*, 6(10), 132-153.
- Ojeh, N. O. & Eze, R. C. (2023). The Impact of International Public Sector Accounting Standards (IPSAS) Adoption on Financial Reporting Quality in the Public Sector. *Global Journal of Auditing and Finance*, 5(1), 14-27. DOI: <https://doi.org/10.5281/zenodo.10033595>.
- Okoh L. T., & Ohwoyibo, K. (2022). The Impact of International Accounting and Auditing Standards on the Quality of Financial Reporting. *Revista De Gestão Social E Ambiental*, 18(8), e06215. <https://doi.org/10.24857/rgsa.v18n8-014>
- Olola, O. A. (2019). Effects of international public sector accounting standards on financial accountability in Nigeria's public sector. *European Journal of Accounting, Auditing and Finance Research*, 7(3), 41-54
- Oluwagbuyi, O. G., & Olowola, J. (2022). Assessing the Impact of IPSAS on Financial Reporting and Public Management in Greece. *SPOUDAI Journal of Economics and Business*, 72(1-2), 56-79
- Shenkoys, E., Ike, E. R. & Elvis, A. (2023). Impact of international public sector accounting standards (IPSAS) on financial reporting in edo state, Nigeria, *Journal of Interdisciplinary Research in Accounting and Finance*, 10(3), 37-52. DOI: <https://doi.org/10.5281/zenodo.8409842>
- Solyam T., Odugu, L. I. & Babatunde, S. (2020). International Public Sector Accounting Standard [IPSAS] and the Quality of

- Financial Reporting in Federal Agencies in Nigeria, *International Journal of Advances in Engineering and Management*, 3(7), 713-721. DOI: 10.35629/5252-030771372
- Tang Q, Chen H, Zhijun L, (2016), financial reporting quality and investor protection: a global investigation, working paper
- Tawiah, V. & Soobaroyen, T. (2022): The relationship between the adoption of international public sector accounting standards and sources of government financing: evidence from developing countries, *Accounting Forum*, DOI: 10.1080/01559982.2022.2151073
- Tawiah, V. (2022). The impact of IPSAS adoption on corruption in developing countries. *Financial Accounting & Management*, 1-22
- ThankGod, N. C., Charly, I. J., & Micah, L. C. (2021). IPSAS adoption in Nigeria: The journey so far. *Journal of Accounting and Financial Management*, 7(3), 40-49.



Forensic Accounting and Cybercrime: Evidence from Nigerian Banking Industry

OGBOTOR, Maxwell Smith Ph.D

Department of Accounting,
Faculty of Management Sciences,
Delta State University, Abraka, Nigeria

Publication Date: 2025/06/30

Abstract

This paper explores the relationship between forensic accounting and cybercrime in Nigeria's banking sector, utilizing secondary data and qualitative analysis. Grounded in fraud prevention and perceived pressure/incentive/motive theories, the study reveals a concerning rate of cybercrime, resulting in substantial financial losses and compromised customer data. To combat this, the study advocates for the integration of forensic accounting, robust cyber security measures, and effective regulatory implementation. Recommendations include investing in cyber security infrastructure and enforcing regulations like the Cybercrime Act. Furthermore, promoting digital financial services, financial literacy, and good corporate governance can help mitigate cybercrime's impact. The study also highlights the importance of engaging forensic accountants and building capacity in cyber security and digital forensics to stay ahead of emerging threats.

Keywords: *Forensic accounting, Cybercrime, Nigerian banking industry, Cybercrime investigation, Digital forensics*

Introduction

Nigeria's banking industry is under siege from a new breed of thieves: cybercriminals. These digital outlaws can drain your bank account, steal your identity, and shake the very foundations of our financial systems. But there's a beacon of hope in this dark landscape: forensic accounting. These financial detectives use their expertise to track down the culprits and bring them to justice. The banking sector plays a pivotal role in sustaining economic stability. However, Nigerian banks have faced a decade-long surge in fraudulent activities through cyber space, eroding public trust and threatening financial stability, ultimately harming shareholders' interests (Adeyemi & Fagbemi, 2023).

The accounting profession's shift towards forensic accounting, as seen in countries like the US, UK, and Malaysia (Hassan & Sanni, 2023), presents an opportunity for Nigeria to bolster its banking sector's integrity and public trust. Unlike conventional accounting methods, which have proven inadequate in detecting and preventing fraud (Okoye, 2013), forensic accounting offers a specialized approach to addressing financial crimes. With their advanced technical expertise, forensic accountants can complement traditional auditing roles (Crumbley, 2012), filling the gap in detecting and preventing fraud, and ultimately contributing to a stable financial system. By adopting forensic accounting practices, Nigeria can potentially mitigate the impact of fraudulent activities and restore confidence in its financial sector.

The integration of forensic accounting tools is essential for financial institutions to meet stakeholder expectations and prevent fraudulent activities (Krstic, 2009). Forensic accounting plays a critical role in detecting and investigating financial crimes, such as embezzlement and complex transactions (Marianne, 2005). By adopting robust forensic accounting practices, financial institutions can promote a culture of accountability and transparency, reducing the risk of financial crimes.

In Nigeria's banking sector, the surge in fraudulent activities has underscored the importance of forensic accounting (Adeyemi & Fagbemi, 2023). Traditional audit methods are no longer sufficient to detect and prevent fraud, given the complexity of modern banking transactions (Centre for Forensic Studies, 2010). This study highlights the significance of forensic accounting in uncovering and mitigating cybercrime in Nigeria's banking industry, ultimately contributing to a safer and more secure banking environment. By leveraging forensic accounting, financial institutions can better protect themselves and their customers from the devastating effects of cybercrime.

Literature Review

Forensic Accounting

The field of forensic accounting has its roots in the mid-20th century, when Peloubet (1946) first conceptualized it as a means to apply accounting expertise to legal issues. Since then, forensic accounting has evolved to incorporate a range of skills and techniques, including accounting, auditing, and investigation (Dada, Owolabi & Okwu, 2013; Zysman, 2004). This field plays a critical role in detecting and preventing financial crimes, and its applications are diverse.

Forensic accounting is a multifaceted discipline that involves analyzing financial data, identifying irregularities, and providing expert testimony (Oyedokun et al., 2019). It

requires specialized skills and knowledge, including the ability to interpret financial transactions and identify potential fraud (Enofe, Utomwen, & Danjuma, 2015). By combining accounting, auditing, and investigative techniques, forensic accountants can help resolve legal disputes and promote financial integrity (ACFE, 2008; AICPA, 2006). Ultimately, forensic accounting is a powerful tool for preventing and detecting financial crimes, and its importance cannot be overstated (Umar, 2020).

Cybercrime

Cybercrime involves using computers, electronic devices, and networks to commit unauthorized acts, such as data theft, fraud, and system sabotage (Slavin, 2020). This encompasses various crimes, including phishing, credit card fraud, and online money laundering (Oloruntoba & Oyedokun, 2023). To combat cybercrime, forensic accounting procedures are employed, utilizing digital forensic tools to collect, examine, and analyze data (Thankaraja & Somasundaram, 2019). These tools enable forensic accountants to investigate cybercrime cases effectively and gather evidence to support potential fraud or cybercrime cases (Gutmann, 1996). By leveraging these techniques, forensic accountants can help mitigate the effect of cybercrime.

Cybercrime refers to criminal activities that utilize computers or networks as tools, targets, or platforms, encompassing a range of offenses from hacking and denial-of-service attacks to traditional crimes facilitated through technology. These crimes can have significant impacts, such as disrupting critical infrastructure, compromising sensitive information, and crippling systems (Nayak, 2013). Various types of cybercrime exist, including hacking, virus dissemination, phishing, cyberstalking, identity theft, and software piracy, among others (Goni et al., 2022). These crimes can cause widespread

disruption and harm to individuals, organizations, and societies.

The advent of information and communication technology (ICT) has given rise to cybercrime, as individuals, organizations, and governments increasingly rely on digital systems (Onuora et al., 2017). This dependence on technology has created vulnerabilities, allowing criminals to exploit digital platforms for illicit activities (Ebelogu et al., 2019). Cybercrime can be categorized into two main types: cyber-dependent crimes, which require the internet or ICT systems to function, and cyber-enabled crimes, which are traditional offenses amplified by technology (Europol, 2019; Alvarez, 2021).

Cyber-dependent crimes include activities like malware creation, hacking, and service denial attacks, while cyber-enabled crimes encompass a range of offenses, such as economic crimes, malicious communications, and child exploitation (Europol, 2019; Alvarez, 2021). Individuals, organizations, and governments face various cybercrime threats, including cyber-theft, cyber-terrorism, hacking, and malware attacks (Ibikunle & Odunayo, 2013; Bandakkanavar, 2020; Kaspersky, n.d.; Kumudene, 2021; Love, 2018; Muhammad & Kiru, 2017). These threats can result in significant financial and reputational damage.

Theoretical Framework

The paper hinged on two (2) theories- fraud preventive theory and perceived pressure/incentive/motive theory

Fraud Preventative Theory

The Fraud Preventative Theory, introduced by Ajzen & Fishbein (1980), suggests that understanding the intentions behind an individual's behaviour can help predict and thwart fraudulent undertakings. According to this theory, intentions are the best predictor of planned behaviour, and identifying the antecedents of these intentions can provide

valuable insights into preventing fraud (Ajzen & Fishbein, 1980). In the context of banking, forensic accounting services play a crucial role in preventing and detecting fraud. These services provide litigation support, helping to quantify economic damages and resolve disputes (Akintoye, 2008; Kankpang et al., 2018). Bank statements are essential in maintaining accountability and serving as an audit trail for transactions (Goosen, Beaver & Landsman, 1999). By leveraging forensic accounting facilities and maintaining accurate records, banks can reduce the risk of deceit with protect their customers' interests. This proactive approach can help prevent fraudulent behaviour and promote a secure banking environment.

Forensic litigation support provides assistance in legal disputes, helping to quantify economic damages and resolve conflicts (Akintoye, 2008). Digital forensics involves the preservation, collection, and analysis of digital evidence to facilitate the reconstruction of events (Carrier, 2003). Studies have explored the responsibilities of forensic accounting with the use of information technology in auditing and financial investigations (Moorthy et al., 2011). However, the impact of forensic ICT on the financial performance of commercial banks in Nigeria remains a distinct area of research, warranting further investigation through field surveys and primary data collection.

The Fraud Prevention Theory offers valuable insights into the human side of cybercrime in Nigeria's banking industry. By understanding what drives individuals to engage in cybercrime, forensic accountants can develop effective strategies to prevent and detect these crimes. This theory highlights the benefits of considering the human factor in cybercrime prevention, allowing forensic accountants to create targeted training programs that educate bank employees on cybercrime risks and security protocols. By combining technical expertise with an understanding of human

motivations, forensic accountants play a very important role in protecting the integrity of Nigeria's banking system. This approach can help reduce the risk of cybercrime and promote a safer banking environment. Ultimately, the theory provides a framework for forensic accountants to proactively address the root causes of cybercrime and develop practical solutions to mitigate its impact.

Perceived Pressure/Incentive/Motive Theory

Pressure is a significant factor in committing fraud, and it can manifest in various forms. The motivations behind fraudulent behaviour can be diverse and complex. Research suggests that pressure can stem from various sources, including personal, professional, and external factors (Lister, 2007; Vona, 2008). Financial difficulties, personal greed, addiction, and other issues can create an environment where individuals may feel pressured to commit fraud (Vona, 2008). Additionally, pressure can be driven by financial, social, or political factors (Murdock, 2008), and can also be linked to employee motivation and personal gain (Rae and Subramanian, 2008). Studies have categorized these pressures into different types, such as economic, job-related, and personal pressures (Albrecht et al., 2008), or as stemming from obligations, personal issues, or corporate pressures (Chen & Elder, 2007).

These pressures can contribute to an individual's likelihood of committing fraud. Pressure can have a dual effect, driving creativity and efficiency when goals are achievable, but potentially leading to misconduct when goals seem unattainable (Hooper & Pornelli, 2010). When pressure becomes an all-consuming force, individuals may resort to questionable activities, including fraud. Personal pressures, such as financial strain, can push individuals to steal. Organizational pressures, including incentives

like bonuses and share price targets. This also facilitates pressure to dishonest behaviour (Singleton et al., 2006; Kenyon & Tilton, 2006). These pressures can take many forms, and understanding their impact is crucial in preventing and detecting fraud.

Understanding what drives individuals to commit cybercrime is crucial in the fight against cybercrime in Nigeria's banking industry. Forensic accountants can use the Perceived Pressure/Incentive/Motive Theory to recognize pressures that may push someone to involve in cybercrime, such as financial difficulties or personal greed. By recognizing these pressures, they can develop targeted strategies to prevent and detect cybercrime. This might involve analyzing financial transactions for suspicious patterns or using digital forensics to investigate incidents.

By understanding the motivations behind cybercrime, forensic accountants can also create effective training programs to educate bank employees on cybercrime risks and security protocols. By applying this theory, forensic accountants can play a vital role in keeping Nigeria's banking system safe and protecting customers' sensitive information. This approach can help reduce the risk of cybercrime and promote a safer banking environment.

Methodology

This research utilized a qualitative methodology to examine the intersection of forensic accounting and cybercrime investigation within Nigeria's banking sector. A comprehensive review of existing literature was conducted, drawing from prominent databases such as Google Scholar, JSTOR, and ScienceDirect, as well as industry reports and research publications. The search strategy employed relevant keywords to identify pertinent studies and reports.

The collected data underwent thematic analysis, revealing key patterns and relationships that shed light on the role of

forensic accounting in combating cybercrime. The study's findings offer valuable insights into the development of effective strategies for investigating and preventing cybercrime, with implications for both practice and future research. Although the study's scope is limited to the Nigerian banking industry, its findings can inform context-specific solutions and provide a foundation for further investigation into the application of forensic accounting in cybercrime investigation.

Analysis and Discussion

Cybercrime in the Nigerian Banking Industry

The banking industry's increasing reliance on technology has brought about a new wave of threats - cybercrime. Imagine someone hacking into your online banking account, stealing your hard-earned money, or identity. This is a harsh reality many face today. Cybercrime in banking refers to the use of technology to commit crimes such as hacking, phishing, and malware attacks. These crimes can compromise sensitive customer data, disrupt banking services, and cause significant financial losses.

Nigeria's banking sector has undergone significant transformations, including a major restructuring exercise in 1986 that led to an increase in commercial banks and improved services (Ifokobonk, as cited in Ogunwale, 2020). The introduction of internet banking in the late 1990s revolutionized financial services, enabling transactions such as online payments, electronic fund transfers, and automated teller machine payments (Ogunwale, 2020). However, the widespread adoption of internet banking has also led to a rise in cybercrime activities, with Nigerian banks facing attacks from cybercriminals who steal or transfer funds without authorization (Ogunwale, 2020).

Nigeria's financial institutions have seen a surge in cybercrime threats due to their increased reliance on the internet and

technology. This has led to various crimes such as theft, phishing, hacking, and fraud, resulting in significant losses. In 2018, Nigerian financial institutions lost over ₦15 billion to cybercrime and electronic fraud, with annual customer deposit losses estimated at ₦1.9 billion. It's projected that by the year 2030; about \$6 trillion will be lost to cybercrimes globally, including Nigeria, mainly through phishing and identity theft (Ogbonnaya, 2020). Fraudulent undertakings led to significant financial losses for Nigerian banks, with ₦3.5 billion lost in just three months of 2020, marking a considerable rise from the previous year (Eleanya, 2021). The widespread adoption of digital technologies has fueled the surge in cybercrime, including spamming, credit card scams, and phishing attacks, which pose substantial threats to the banking sector's stability and customer trust (Eze, 2021).

The Nigerian banking sector is vulnerable to the adverse effects of cybercrime, according to recent studies. Research by Fadairo-Cokers and Ibrahim (2021) revealed that cybercrime hinders online banking and ATM transactions, often due to inadequate financial knowledge and limited understanding of digital platforms. Furthermore, Muhammad and Kiru (2017) emphasized the need for Nigeria to strengthen its anti-cybercrime efforts, identifying factors such as low literacy rates and ineffective governance as significant contributors to the issue.

To combat identity duplication and fraudulent activities, the Central Bank of Nigeria implemented the Bank Verification Number (BVN) initiative, which aimed to address losses totaling ₦203 billion over a 14-year period. Despite this effort, Nigerian banks still suffered significant losses, with ₦12.30 billion lost to internet fraud between 2014 and 2018 (Ogunwale, 2020). While existing research has extensively examined cybercrime threats in the banking sector, there remains a knowledge gap regarding the dynamics

between bank insiders and external cybercriminals. This study seeks to investigate the nexus between bank employees and outside perpetrators in cybercrime, as well as the efficacy of current prevention and detection measures (Faboyede et al., 2023).

Cybercrime significantly impacts the banking system, affecting both financial losses and customer trust. To combat this, banks must invest in robust cyber security measures, including security protocols, transaction monitoring, and customer education (Faboyede et al., 2023). Effective implementation of regulations, such as Nigeria's Cybercrimes Act 2015, can also help reduce cybercrime rates (Ogunwale, 2020).

Forensic Accountants and Auditors in Cybercrime Investigation

Forensic accountants and auditors play a crucial role in cybercrime investigation by utilizing specialized techniques to identify and analyze digital evidence. They extract and analyze data from digital sources like emails, transaction logs, and network traffic, using advanced data analytics and digital forensic tools to uncover fraudulent activities and patterns indicative of financial crimes (Ali, 2024). This expertise is essential in tackling cyber-enabled crimes, which involve sophisticated techniques and advanced technology.

Forensic auditing involves in-depth investigation of financial and non-financial data to identify and evaluate suspected fraud or illegal activity. This process leverages various analytical techniques, such as statistical analysis, predictive analytics, and machine learning, to detect suspicious patterns or evidence of fraud (Bierstaker, Brody & Pacini, 2006). Forensic auditors collect data from various sources, including financial transactions, emails, and digital logs, which are then analyzed using forensic software and advanced technologies.

Forensic accountants possess expertise in conducting detailed interviews and analyzing complex financial transactions to uncover the truth (Okpo & Simeon, 2023). They provide services to corporations, attorneys, and government, helping to estimate losses, identify perpetrators, and track down assets (Coenen, 2005). Their primary goal is to determine where money went, how it got there, and who was responsible for it (Degboro & Olofinsola, 2007).

The application of technology during forensic accounting has revolutionized the uncovering and substantiation of monetary scam. Artificial intelligence (AI) enables efficient data analysis and automation of routine tasks, such as document review and transaction matching. Blockchain technology provides a transparent and immutable digital ledger, ensuring the integrity and accuracy of financial data (Bierstaker et al., 2006). This technology allows forensic auditors to analyze big data quickly and accurately, detect suspicious patterns, and identify anomalies that may indicate fraud.

Forensic accountants and auditors are vital in preventing and detecting fraud and corruption within organizations, essentially acting as financial crime scene investigators (Honigsberg, 2020). They collaborate with law enforcement agencies to investigate and prosecute cases (Rahman et al., 2023). By leveraging their skills and expertise, forensic accountants can help bring financial criminals to justice and prevent future crimes. Effective fraud prevention strategies are crucial to protect organizations from financial and reputational losses. Implementing strong policies and procedures related to financial management, payments, and monitoring of financial transactions is essential (KPMG, 2013). Regular internal controls and division of responsibilities, where financial tasks are undertaken by different individuals, can help reduce the risk of fraud (PricewaterhouseCoopers, 2016). By

combining these elements with technology, such as data security systems and anomaly detection systems, organizations can reduce the menace of fraud and protect their assets and reputation (Deloitte, 2019; BCA, 2021).

Conclusion

The threat of cybercrime looms large over Nigeria's banking sector, with devastating financial consequences and erosion of customer confidence. The industry has witnessed a surge in cyber-attacks, resulting in substantial monetary losses, with a notable example being the over ₦15 billion lost to cybercrime and electronic fraud in 2018 (Ogunwale, 2020). The increasing reliance on digital banking has created an environment conducive to cybercrime activities, including hacking and malware attacks, which can compromise sensitive data and disrupt financial services (Ogunwale, 2020).

Forensic accountants and auditors are essential in the fight against cybercrime, employing specialized skills to identify and analyze digital evidence (Ali, 2024). By harnessing advanced data analytics and digital forensic tools, these professionals can uncover patterns indicative of financial crimes and detect anomalies that may indicate fraud (Bierstaker, Brody & Pacini, 2006). The integration of technologies like artificial intelligence and blockchain can enhance the efficiency and accuracy of forensic audits, enabling the detection of suspicious patterns and anomalies (Bierstaker et al., 2006).

To effectively combat cybercrime, banks must prioritize robust cyber security measures, including security protocols and customer education (Faboyede et al., 2023). The effective implementation of regulations, such as Nigeria's Cybercrimes Act 2015, can also contribute to reducing cybercrime rates (Ogunwale, 2020). By establishing strong policies and procedures, organizations can mitigate the risk of fraud and protect their

assets and reputation (KPMG, 2013; PricewaterhouseCoopers, 2016).

Recommendations

A comprehensive approach is necessary to protect Nigeria's banking industry from cyber threats. This involves investing in robust cyber security measures, including advanced threat detection systems and customer education initiatives. Collaboration between the government and banking industry is crucial in implementing effective regulations and staying ahead of emerging threats (Sanusi, 2012).

Digital financial services can play a vital role in promoting financial inclusion in Nigeria, particularly in rural areas. By leveraging mobile phones and other digital platforms, the Central Bank of Nigeria can reach underserved populations and promote economic growth. Financial literacy programs are also essential in educating citizens on safe online banking practices and reducing the risk of cybercrime (Nkechika, 2022).

Promoting good corporate governance is critical for the stability and growth of Nigeria's banking industry. This involves addressing broader societal issues like corruption and poor leadership, while implementing strong policies and procedures related to financial management and transaction monitoring. By combining these efforts with technology, banks can reduce the risk of fraud and protect their assets (Adegbite, 2012).

To effectively combat financial crimes, forensic accountants and auditors should be engaged to utilize specialized techniques and analyze digital evidence. Building capacity and expertise in cyber security and digital forensics is essential for the government and banking industry to stay ahead of cyber threats and promote a safer financial system. This requires a collaborative effort to develop and implement effective strategies for detecting and preventing financial crimes.

References

- Adegbite, E. (2012). Corporate governance in the Nigerian banking industry: towards governmental engagement. *Int. J. Business Governance and Ethics*, 7(3), 209-231.
- Adeyemi, O.S.& Fagbemi, T. O. (2023). Forensic accounting techniques and fraud control in Nigerian banks. *International Journal of Accounting and Financial Reporting*, 13(2), 115-133.
- Ajzen, I.& Fishbein, M. (1980). Understanding attitudes and predicting social behaviour. Englewood Cliff, NJ: Prentice-Hall.
- Akintoye I.R (2008). *The basics of environmental and forensic accounting*. Unique Educational Publishers.
- Akintoye, I.R. (2008). *The basics of environmental and forensic accounting*. Unique Educational Publishers, ISBN 987-8047-61-0
- Albrecht, W.S., Albrecht, C. & Albrecht, C.C. (2008). Current trends in fraud and its detection: A global perspective. *Information Security Journal*, 17. Available at www.ebscohost.com.
- Ali, X. (2024). Role of Forensic Accounting in the Era of Cyber Scam: New approaches and Techniques. *Int J Account Res.* 12:390.
- Al-Shaikh, A, & Al-Adeem, K. (2023). Exploring the current state of forensic accounting in Saudi Arabia and possible ways of elevating it to assist the government fighting corruption. *Journal of forensic Accounting Profession*, 3(1), pp. 1-37.
- Alvarez, R. (2021, Sept 2). Cyber-enabled crime vs. Cyber dependent crime. IPProbe.Global. Available at <https://ipprobe.global/2021/09/02/cyber-enabled-crime-vs-cyber-dependent-crime/#:~:text=#:~:tex t=%E2%80%9CCyber%2Denabled%20crime%20is%20traditional,ransomware%2C%20DDoS%20attacks%20and%20malware>.
- American Institute of Certified Public Accountants (AICPA). (2006). Audit risk exposure standards. Statements of Auditing Standard.
- Association of Certified Fraud Examiners. (2008). Report to the nation on occupational fraud abuse. Austine: Tax Association of Certified Fraud Examiners.
- Bandakkanavar, R. (2020, June 19). Causes of cybercrime and preventive mechanism. Krazytech. Available from <https://krazytech.com/technical-papers/cyber-crime>
- BCA. (2021). Pokok-Pokok Pedoman Penerapan Strategi Anti Fraud. Available at [https://www.bca.co.id/-/media/Feature/Report/File/S8/Kebijakan-GCG/Pokok-Kebijakan -Anti-fraud.pdf](https://www.bca.co.id/-/media/Feature/Report/File/S8/Kebijakan-GCG/Pokok-Kebijakan-Anti-fraud.pdf)
- Bierstaker, J. L., Brody, R. G., & Pacini, C. (2006). Accountants' perceptions regarding fraud detection and prevention methods. *Managerial Auditing Journal*, 21(5), 520-535. Available at <https://doi.org/10.1108/02686900610667283>
- Brytting, T., Minogue, R. & Morino, V. (2011). *The Anatomy of Fraud and Corruption: Organizational Causes and Remedies*. [Online]. Gower Publishing Ltd.
- Carrier, B. (2003). Defining Digital Forensic Examination and Analysis Tools Using Abstraction Layers. *International Journal of Digital Evidence, Volume 1, Issue 4*.
- Centre for Forensic Studies. (2010). Nigerian Institute of Advanced Legal Studies Lagos, Nigeria Roundtable on the Role of Forensic and Investigative Accounting:

Challenges For The Banking Industry 19th July.

Chen, K. Y. & Elder, R. J. (2007). Fraud Risk Factors and the Likelihood of Fraudulent Financial Reporting: Evidence from Statement on Auditing Standards No. 43 in Taiwan, Working paper.

Coenen, T. (2005). *Forensic accounting, a new twist on bean counting*.

Crumbley, D. L. (2012). Forensic accounting older than you think. *Journal of Forensic Accounting*, 4(3):132-41.

Crumbley, D.L., Heitger, L.E., & Smith, G.S. (2005). Forensic and investigative accounting. CCH Group, Chicago, IL

Dada, Samuel O., & Owoeabi, S.A. (2013). Forensic Accounting a Panacea to Alleviation of Fraudulent Practices in Nigeria. *International Journal Business Management Economic Research*, 4 (5).

Degboro, D. & Olofinsola, J. (2007). Forensic accountants and the litigation support engagement. *Nigeria Accountant*, 40 (2), 49-52.

Deloitte. (2019). Fraud Risk Management. Deloitte Insights. <https://doi.org/10.1108/DELOITTE-01-2019-0003>

Dhar, P. & Sarkar, A. (2010). Forensic accounting: An accountant's vision. *Vidyasagar University J. Commerce*, 15(3), 93-104.

Ebelogu, C. U., Ojo, S. D., Andeh, C. P., & Agu, E. O. (2019). Cybercrime, its adherent negative effects on Nigerian youths and the society at large: Possible solutions. *International Journal of Advances in Scientific Research and Engineering (IJASRE)* 5(12), 155-164.

Eleanya, F. (2021 Feb 16). Cyber fraud rises 534% as Nigerian banks lose ₦3.5 billion. BUSINESSDAY.

Available

at www.businessday.ng/banking-finance/article/cyber-fraud-rises-534-as-Nigerian-banks-lose-n3-5bn/

Enofe, A. O., Utomwen, & Danjuma (2015). The role of forensic accounting in mitigating financial crimes. *International Journal of Advanced Academic Research. International Journal of Economics and Business Management*, 1(7)1-10.

Europol. (2019, Oct 9). Internet Organized Crime Threat Assessment. Available at internet-organized-crime-threat-assessment-iocta-2019

Eze, P. A. U. (2021). Challenges of cybercrime on online banking in Nigeria: A review. International Digital Organization for Scientific Research (IDOSR). *Journal of Art and Management* 6(1), 63-69.

Faboyede, O. S., Ogunniyi, O., Atanda, O., Dahunsi, O. & Balogun, Z. (2023). Cybercrime Threats in the Nigerian Banking Sector and the Way Forward. *Ilorin Journal of Criminology and Security Studies* Vol.1, No.2, December, pp. 31-48.

Fadairo-Cokers, O. A. & Ibrahim, G. U. (2021). Impact of cybercrime on selected Deposit Money Banks (DMBS) in the Federal Capital Territory (FCT). *International Journal of Advanced Research in Statistics, Management and Finance* 8(1)

Goni, O., Ali, H., Showrov, Alam, M., & Shameem, A. (2022). The Basic Concept of Cyber Crime. *Journal of Technology Innovations and Energy*, 1(2), pp. 29-39. Available

at <https://doi.org/10.5281/zenodo.6499991>

Goosen, G. Beaver, W., & Landsman, W. (1999). The relevance of the value of relevance literature for financial accounting standard setting: another

www.deljoms.com.ng

review. *Journal of Accounting and Economic*, 31, 77-104.

Gutman, G. S. (1996). *Preventing financial fraud through forensic accounting*. The Chartered

Hassan, M. M., & Sanni, A. M. (2023). Enhancing Fraud Detection in Nigerian Banks Through Forensic Accounting. *Journal of Banking Regulation*, 24(3), 243-259.

Honigsberg, C. (2020). Forensic Accounting. *Annual review of law and social science*, 16(1), pp. 147-164.

Hooper, M. J., & Pornelli, C. M. (2010). Detering and detecting financial fraud: A platform for action. Available at <http://www.thecaq.org/docs/reports-and-publications/detering-and-detectingfinancial-reporting-fraud-a-platform-for-action.pdf>

Ibikunle, F. & Odunayo, E. (2013). Approach to cyber security issues in Nigeria: Challenges and solution. *International Journal of Cognitive Research in Science, Engineering and Education (IJCRSEE)* 1(1), 100-110.

Kankpang, A. K., Nkiri, J. E., & Uket, E. E. (2018). Effect of employee dishonesty and fraud on profitability of manufacturing firms in Nigeria. *Asia Pacific Journal of Research in Business Management* 9 (7), 1 - 13.

Kaspersky (n.d.). *Black hat, White hat, and Gray hat hackers – Definition and Explanation*. Available at <https://www.kaspersky.com/resource-center/definitions/hacker-hat-types>

Kenyon, W. and Tilton, P. D. (2006). *Potential red flags and fraud detection techniques: A Guide to Forensic Accounting Investigation*, First Edition, John Wiley & Sons, Inc, New Jersey.

KPMG. (2013). Managing the Risk of Fraud and Misconduct. *KPMG Report*, 1(1), 1-24. Available at <https://doi.org/10.1108/KPMG-05-2013-0001>

Krstić, J. (2009). The role of forensic accountants in detecting frauds in financial statements. *Economic and Organization* 6(3), 295-302.

Kumudene, A. (2021, Nov 2). *Malware Analysis Report*. Researchgate. Retrieved from Available at https://www.researchgate.net/publication/356406682_Malware_Analysis_Report

Lister, L. M. (2007). *A Practical Approach to Fraud Risk: Internal Auditors*.

Love, J. (2018b, April 5). A Brief History of Malware – Its Evolution and Impact. Lastline. Available at <https://www.lastline.com/blog/history-of-malware-its-evolution-and-impact/>

Marianne O (2011). *Forensic accounting and the law: The Forensic Accountant in the Marion hecht and Maryellen Redmond (2010) Unveiling the Mystery of Forensic Accounting*. Oregon Society of Certified Public Accountants. Published by Accounting Today

Moorthy, K.M., Seetharaman, A., Mohamed, Z., Gopalan, M., & Lee Har San, L.H. (2011). The Impact of Information technology on Internal auditing. *African Journal of Business Management*, Vol. 5(8), pp.3523-3539.

Muhammad, S. I. & Kiru, M. U. (2017). A situational analysis of cybercrime and its economic impact in Nigeria. *International Journal of Computer Applications* 169(7), 19-29.

Muhammad, S. I. & Kiru, M. U. (2017). A situational analysis of cybercrime and its economic impact in Nigeria.

International Journal of Computer Applications 169(7), 19-29.

Murdock, H. (2008). The Three Dimensions of Fraud: Internal Auditors. Available at www.emerald.com.

Nayak, S. D. (October 2013). Impact of Cyber Crime: Issues and Challenges. 6(2).

Nkechika, C. G. (2022). Digital Financial Services and Financial Inclusion in Nigeria: Milestones and New Directions. *Economic and Financial Review* Volume 60/4 December, pp. 151-170.

Ogbonnaya, M. (2020, Oct 19). *Nigeria: Cybercrime in Nigeria Demands Public-Private Action*. All Africa. Available at <https://allafrica.com/stories/202010200103.html>

Ogunwale, H. (2020). The Impact of Cybercrime on Nigeria's Commercial Banking System. Researchgate. Retrieved from www.researchgate.net/publication/347388290

Okoye, E. I. (2013). Forensic accounting: A tool for fraud detection and prevention in the public service. A study of selected ministries in Kogi State. *International Journal of Academic Research in Business and Social Sciences*, 3(4), 1-18.

Okpo, S. A., & Simeon, U. J. (2023). The role of forensic accounting in mitigating against cybercrimes during the covid-19 pandemic era: issues and perspectives. *GPH-international journal of social science and humanities research*, 6(07), 09-23.

Oloruntoba, S. R., & Oyedokun, O. I. (2023). Forensic Accounting and Cybercrime Prevention in Listed Deposit Money Banks in Nigeria. *The Akungba Administrators and*

Management Scientists (TAAMS), Volume 1, Issue, pages 15-26.

Onuora, A. C., Uche, D. C., Ogbunude, F. O., & Uwazuruike, F. O. (2017). The challenges of cybercrime in Nigeria: An overview. *Akanu Ibrahim Federal Polytechnic Unwana, Ebonyi (AIPFU) Journal of School of Sciences (AJSS)*, 1(2), 6-11.

Oyedokun, G. E., Enyi, E. P., Dada, Ajibade, A. T., Igbaraola, A. F., & Waluyo, W. (2019). Financial Statements' Integrity and Forensic Accounting Techniques. *Journal of business ethics* 139, 197-214.

PricewaterhouseCoopers. (2016). Global Economic Crime Survey. PwC, 6(3), 1-40. Available at <https://doi.org/10.1108/PWC-09-2016-0002>

Rahman, M.J., Xuan, J., Zhu, H. & Hossain, M.M. (2023). Accounting fraud and corporate sustainability: Chinese listed companies. *Journal of Financial Crime*, Vol. ahead-of-print. doi: Available at <https://doi.org/10.1108/JFC-02-2023-0035>.

Sanusi, L. S. (2012). Banking Reform and its Impact on the Nigerian Economy. Being a Lecture delivered at the University of Warwick's Economic Summit, UK 17th February. *CBN Journal of Applied Statistics* Vol. 2 No.2.

Singleton, T. W., Bologna, G. J., Lindquist, R. J., & Singleton, A. J. (2006). *Fraud auditing and forensic accounting*, 3rd Ed., John Wiley & Sons, Inc, New Jersey.

Slavin, N. B. (2020). Empirical analysis on the use of forensic accounting techniques in curbing creative accounting. *International Journal of Economics Commerce and*

Management United Kingdom,
3(1): 1-15.
Thainkaraya, D. & Somasundaram, J.
(2019). Forensic accountants and the
litigation support engagement.
Niger Account,40(2): 49-52.
Vona, I. W. (2008). *Fraud Risk
Assessment: Building a Fraud Audit*

Programme. Hoboken, New
Jersey: John Wiley and Sons.
Zysman, A. (2004). *Forensic
Accounting Demystified*. World
Investigators Network Standard
Practice for Investigative and Forensic
Accounting Engagements.



Customer Patronage and Petroleum Products Retail Outlets: A Study of Warri and Environs

Okofu S.N¹

Department of Marketing and Entrepreneurship
Faculty of Management Sciences
Delta State University, Abraka

Bisina J.D²

Department of Public Administration
Faculty of Management Sciences
Delta State University

Diemuodeke O.J³

Department of Marketing and Entrepreneurship
Faculty of Management Sciences
Delta State University, Abraka

Publication Date: 2025/06/30

Abstract

In a competitive and dynamic market, the petroleum industry strives to maintain and expand its market position as a petroleum dealer. The awareness of renewable energy has influenced consumer behaviour towards trends, eco-friendly environments, and technology, prompting companies to develop products and improve services to meet changing customer needs and foster retention and loyalty. The study created a conceptual model to analyze factors influencing customer patronage of petroleum products retail outlets in Delta State. The study was based on the theory of reasoned action (TRA) and the patronage behaviour theory. Thus, 400 respondents sampled from management, staff, and consumers of petroleum products in Warri and its surroundings were collected and analyzed using SPSS version 25. The study employed descriptive and inferential statistics, Simple Linear Regression and Multiple Linear Regression for hypotheses tests to establish the connection between independent and dependent variables. The results indicated that factors such as pump price, outlet proximity, dispensing pump assurance, and product quality significantly influence consumers' loyalty towards petroleum products retail outlets in Delta State. Consequently, operators of petroleum retail outlets should devise strategies to build trust, sustain their market position, and remain competitive in this rapidly changing business landscape.

Key words: *Midstream Petroleum, Downstream Petroleum, Consumer Patronage, Petroleum Marketers, Competition, Service Marketing, Delta State.*

Introduction

The oil and gas sector in Nigeria can be divided into two main parts: the upstream and the downstream. The upstream involves exploring and drilling crude oil, while the

downstream includes importing, exporting, re-exporting, shipping, transportation, processing, refining, storing, distributing, and marketing products (Ogwo & Agu, 2016). The downstream sector is where most visible

marketing activities take place. Over time, the government has implemented various measures to streamline downstream activities, such as regulation and subsidy regimes (Ogwo & Agu, 2016). Nigeria ranks as one of Africa's primary oil producers reversing 37.50 billion barrels on 2.19 million per day production capacity (Komolafe, 2024). Nigeria generated N7.93 trillion (USD 26 billion) from oil exports between January and July 2018, constituting approximately 86% of the country's total export earnings (Ogbunamiri & Agu, 2022). Additionally, downstream reform has been implemented at various times to drive economic growth and achieve developmental objectives (Ogwo & Agu, 2016).

The distillation of petroleum yields several by-products, including Premium Motor Spirit (PMS), Dual Purpose Kerosene (DPK), Aviation Turbine Kerosene (ATK), Household Kerosene (HHK), Automotive Gas Oil (AGO), and High Pour Fuel Oil (HPFO), Low Pour Fuel Oil (LPFO). Ogwo & Agu (2016) highlighted the significance of petroleum products such as lubricants (engine oils, grease), asphalt, bitumen, and petrochemicals. These products play various vital roles for individuals, industries, and society as a whole. The primary uses of petroleum products include fuel for engines (such as plants, automobiles, generators, and vessels), lubrication, heating, lighting, and raw materials for manufacturing other goods. Generally, demand for white petroleum products is higher due to their various applications in human activities and essential needs. The Nigerian Midstream and Downstream Petroleum Regulation Authority (NMDPRA) reported in Adejoke (2023) that, in Q2 2022, Nigerians consumed 14 million litres of diesel, compared to approximately 66.8 million litres of PMS per day.

The Nigerian National Petroleum Company Limited is in charge of the majority of petroleum product imports. Nevertheless,

middlemen are employed by the Pipeline and Products Marketing Company (PPMC) and other private depots for activities such as distribution, storage, standardizing, etc. Additionally, according to DAPMA (2020), there are over 7000 registered filling stations dispersed throughout Nigeria, along with over 80 private depots and tank farms (<http://nigerianinfofinder.com>). Various petroleum product retail outlets, comprising major and independent marketers with multiple stations dispersed throughout the nation, market these products to consumers. Prominent oil marketers include NNPC, Mobil, Total, Oando, MRS, Forte, and Conoil, to name a few. A few are international oil corporations also engaged in petroleum exploration and production. In light of this, the Nigerian National Petroleum Company Limited expanded the number of significant oil marketers in Nigeria with over 7000 retail outlets from 10 in 2013 to 18 in 2018 and 27 in 2022 (Okechukwu & Akintayo, 2022). Given the generally consistent quality of petroleum products and the industry's deregulation, which has resulted in price competition, the competition among petroleum product marketers can be fierce.

Customer attraction, retention, and satisfaction with petroleum products (Rosemary, 2019) have become critical to the long-term viability of petroleum marketers (Anyanwu, 2018). Marketing academics concur that customer loyalty and satisfaction—which result from their perception of value and quality—are the primary drivers of profitability (Ogwo & Agu, 2016). Because petroleum product prices were set during regulation, marketers of petroleum products typically sell a limited number of products at roughly the same price. According to Integrity (2024), premium motor spirit (PMS, gasoline/petrol) sells for N1,300 per litre in Nigeria, kerosene (DPK) costs N2,300, diesel (AGO) costs N2,000, and cooking gas costs N1,300 per kilogram. The cost of

lubricants (engine oil, grease) varies depending on the brand. The cost of services varies depending on the retail location. Price has thus become a crucial factor in petroleum products marketing following the federal government's recent deregulation policy (removal of subsidies). Imperatively, the rational consumer may prefer to shop at a retail location with a low pump price if other factors influencing customer preference are held constant by petroleum product retail outlets.

Petroleum product marketing is not without its difficulties. Because our local refineries are no longer in operation, petroleum product marketers are now limited to importing, resulting in sporadic shortages and high prices for petroleum products. Another problem with petroleum product marketing in Nigeria is the quality of the products. Petroleum products are produced with national standards and specifications, which can vary from one country to another.

Customers are thus, frequently unhappy when petroleum products imported do not meet Nigerian quality (specification) expectations. Furthermore, some petroleum product marketers adulterate their products, which could jeopardize property and human safety and unhappiness. Another obstacle to the marketing of petroleum products is union activity. For instance, the Petroleum Tankers Drivers Union (PTD) has the right to terminate its membership at any time, which would completely stop the marketing of petroleum products.

The location of retail outlets is severely restricted by the volatile nature of petroleum products. It could be difficult for marketers to obtain approval for the locations of their depots or retail stores. In addition to removing them from their target market, this puts them at risk for theft and other security issues. Amidst the obstacles and rivalry in the petroleum product marketing industry, marketers must contend with certain

challenges frequently contemplated by petroleum product consumers. Product adulteration, trust, accuracy of the dispensing pump, product availability, non-uniform pricing (different pump prices), restrictions on the location of retail outlets for petroleum products, and variations in the layout and atmosphere of retail outlet spaces are the main challenges (Akpevwe, 2020; Ogwo & Agu, 2016). The manners and appearance of sales associates are also important factors that impact a customer's preference for a specific retail location (Ogwo & Agu, 2016). Customers also consider the price at the pump of petroleum products because they spend a reasonable disposable income on these purchases.

Direct consumer sales of refined petroleum products are the main business activities of a filling station, a retail location for petroleum products. Additionally, they provide services like car wash, vulcanizing, mini-mart, lube bay, and customer convenience (Onoruese 2018). Depending on the capacity and services provided, there are various retail locations for petroleum products, such as mega stations, filling stations, floating stations, peddlers, and service stations.

Theoretical Review and Hypotheses Development

To gain a deeper understanding of consumer behaviour and loyalty in the petroleum industry in Nigeria, the study created a conceptual model to analyze important variables that impact patronage of retail outlets selling petroleum products in Delta State.

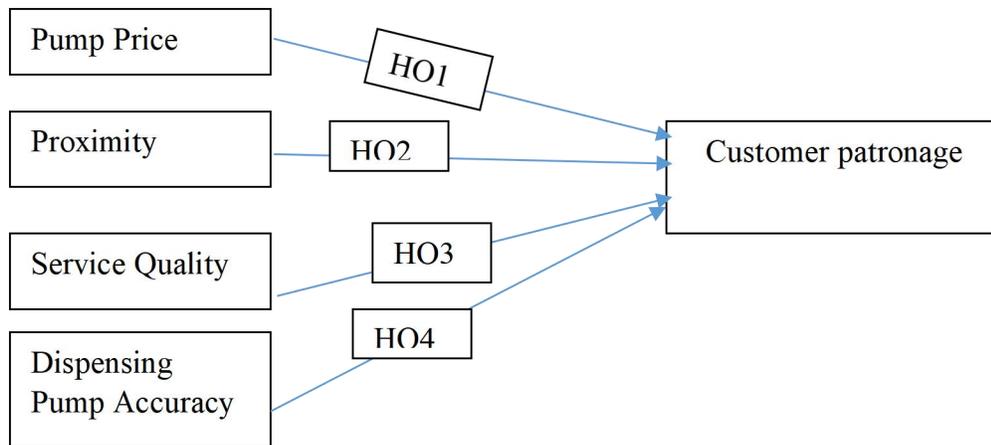
The Theory of Reasoned Actions (TRA)

Ajzen and Fishbein (1975, 1980) developed the Theory of Reasoned Action (TRA), which explains an individual's voluntary behaviour as the underlying motivation behind an action. The hypothesis was evolved to provide a clearer understanding of the relationship

between viewpoints and goals, which is influenced by behaviour attitude and social standardizing observations. It claims that attitudes toward behaviour and emotional standards—mentalities imposed by reference groups—provoke expectations and behaviour change. The idea that mental attitude is influenced by desires or convictions regarding attributes of the thing or activity and the evaluation of those traits led to the creation of the Theory of Reasoned Action (Ajzen and Fishbein, 2015). Reasoned action theory, helps to explain why some customers prefer a particular outlet to another. Besides, consumers can make purchase of a particular product or services based on expected outcome such as confidence (Akazue et al., 2024), which brings about positive change toward a retail outlet. Furthermore, the TRA suggested that consumer behaviour be

determined by their intention. Consumer intention in this context, is the extent to which an individual is ready to engage in a particular behaviour (Ajzen and Fishbein, 2015; Fishbein, 2017). Thus, TRA is influenced by viewpoints, resolutions, experience, purpose, and aspirations formed by the arrangement of beliefs, and culminates in the setting of a value based on behaviour (Ameachi, 2017; Akazue et al., 2024). Because it clarifies the fundamentals of consumer patronage, including the intention to support a specific brand or business based on attitudes, volitional control, and subjective norms, this theory is relevant to the research as a customer's intention to buy is influenced by more than just the product; it is also shaped by their prior experiences, level of satisfaction, and surroundings.

Figure 1: Model of Petroleum Products Retail Outlet and Customer Patronage



Conceptual Model 2024

Petroleum Products Retail Outlet ‘s and Pump Price

economic good or service (offering) is the unit of measurement or exchange rate. Prices, therefore, are determinants that affect demand for or the purchase of goods and services (Okofu 2021) and are related to the benefit perceived they will receive (Kotler and Armstrong, 2018), which can be advantageous to competitors (Shoham et al., 2018). Musa (2020) conducted a study to ascertain customers' preferences regarding gasoline consumption in Sokoto State. The study opined that product pricing, marketing campaigns, location, personnel, and tangible proof influence consumer spending. Umukoro (2017) and Etokudo (2018) have conducted comparable studies that demonstrate the impact of price on customer loyalty and repeat purchase decisions. Thus, the following hypothesis that:

HO 1: *There is no significant relationship between petroleum products retail outlet's pump price and customer patronage of petroleum products.*

Petroleum Products Retail Outlet ‘s and Proximity

The success of a business may determined by location or site. In this context, proximity refers to the physical area, ambient conditions, layout, sanitation, accessibility, ease of use, physical evidence, safety, and cleanliness—all of which can entice customers to make a purchase (Saduwa, 2017; Ogbunamiri & Agu, 2022). Accordingly, proximity includes time efficiency, ease of purchase, and the associated transportation costs (Anne, 2019). Thus, customers will choose the closest retail location to them while all other variables are competitive. Aaron et al. (2022) discovered that customer preference and satisfaction at Malaysian gas stations were convenience, marketing, and other factors stations. Therefore, the hypothesis that:

In a market economy, the price of any

HO 2: *There is no significant relationship between petroleum products retail outlet's proximity and customer patronage of petroleum products.*

Petroleum Products Retail Outlet's and Service Quality

One way to measure service quality is how well a business or organization understands the needs of its clients and meets their expectations. A ratio that indicates how well a service meets or exceeds expectations in terms of tangibility, assurance, responsiveness, satisfaction and experience is known as service quality. However, to improve productivity, service quality must surpass customers' expectations (Udoh 2018). In the investigations by Ahmed (2017) and Aaron et al. (2022) to examine the factors influencing customer satisfaction at gas stations in Malaysia, the studies discovered that customer patronage of gas stations correlates with service quality.

Also, Negi (2019) observed that patronage of gas stations in Ethiopia correlated with customer trust. Again, Magnus (2020) noted that capacity storage and timely product regularity determine customer patronage. Therefore, the hypothesis is that.

HO 3: *There is no significant relationship between petroleum products retail outlet's quality service quality and customer patronage of petroleum products.*

Petroleum Products Retail Outlets' and Dispensing Pump Accuracy

Trust, or the assurance, conviction, and confidence that consumers place in a company's goods or services, is one of the elements in the retailing of petroleum products (Muhammad et al., 2019; Geng, 2018). Consumers behaviour to use a product or service is predicted on users trust (Okofu et al, 2024; Okofu, et al., 2023). In this study,

customer loyalty captured the dispensing pump's validity, trust and dependability. Accordingly, reasonable customers would consider the dispensing pump's accuracy because it's likely to be included in measuring customer satisfaction. Fasanmi et al. (2022) examined customer patronage and trust towards Bovas gas stations in Ilorin, Kwara State. The analysis showed a strong correlation between customer loyalty, staff civility, and the accuracy of the dispensing pump and product quality. Thus the hypothesis that:

HO 4: *There is no significant relationship between petroleum products retail outlet's dispensing pump assurance/accuracy and customer patronage of petroleum products.*

Petroleum Products Retail Outlets and Customer patronage

Customer patronage refers to a customer's consistent, positive reinforcement from a seller through repeated purchases of goods, services, or brands (Dawn, 2018; Kotler, 2019). Therefore, marketers focus on patronage to win and survive in a highly competitive environment (Mark, 2023). They are interested in patronage to increase customers satisfactions (Okofu et al., 2024), mitigate switching behaviour due to the availability of new products, dissatisfaction, and price sensitivity (Kotler & Keller, 2018). According to Anyanwu, Ibekwe, and Okerefor (2021), a patron is a customer who makes purchases from a specific business, is not price sensitive, and speaks well of a good or service. Consumer loyalty is a marketer's pledge to stay away from what rivals are offering (Kotler & Keller, 2018). Okeke (2020) noted that client loyalty and satisfaction are crucial for the survival, existence, and firm success of both present and future patronage. Customer loyalty is essential for businesses looking to cut costs and boost profitability (Kotler & Armstrong, 2018). According to some researchers,

factors that increase consumer loyalty include price, brand, trust, service quality, product quality, and loyalty programs (Negi, 2019; Fasanmi et al., 2022; Inne, 2021; Rosemary, 2019 and Musa, 2020).

Research Methodology

The judgmental sampling technique was employed since willing respondents were selected based on the study's objectives. A sample of 400 was determined as a basis of previous studies, with comparable circumstances, to be sufficient for the investigation (Akpevwe, 2020). The study sample comprised customers, employees, and management of specific retail outlets selling petroleum products located on Warri/Sapele Road, Ugbwangwe, Ubeji, Market Road, Airport Road, NPA Expressway, PTI Road, Effurun/Sapele Road, Osubi, Okuokoko, Enerhen road, and Udu road. A structured hard-copy questionnaire was administered among the available respondents, while multiple regression, descriptive statistics and SPSS version 25 were utilized for data analysis. Cronbach Alpha generated on the adopted items was inclusive, with a value of 0.836 for internal consistency, above the suggested cutoff of 0.7 (Hair, Risher, Sarstedt, & Ringle, 2019).

Regression Model

Dependent variable		Independent variables
CUSPATRO	=	f(PR, PRO, SERVQTY, DISPUMP)
CUSPATRO	=	$\beta_0 + \beta_1 PR + \beta_2 PRO + \beta_3 SERVQTY + \beta_4 DISPUMP + \epsilon_i$

Where;

CUSPATRO	=	Customer patronage of petroleum product retail outlet.
β_0	=	Intercept of regression line
$\beta_1 - \beta_4$	=	Partial regression coefficient of the independent variable

www.deljoms.com.ng

PR = Pump price of retail
outlet
PRO = Proximity of retail
outlet to consumer
SERVQTY = Quality of
service/Quick Service to customers

DISPUMP = Dispensing Pump
Accuracy/Assurance
 ε_i = error term or stochastic
varia

Result and Discussion

Determinants of the independent variables on Patronage of Petroleum Product Retail Outlets

Table 1 Mean and Standard Deviation of Customers' Patronage

Construct	Measuring Statement	Mean (X)	Std Dev (SD)
Price			
	PR 1	3.160	1.3129
	PR 2	3.1225	1.13389
	PR 3	3.0100	.65266
Overall Mean		3.0975	0.69665
Proximity			
	PRO 1	3.0375	1.29819
	PRO 2	3.1500	1.33678
	PRO 3	3.1050	1.23604
Overall Mean		3.0975	.98000
Service Quality			
	SERVQTY 1	2.9700	.93342
	SERVQTY 2	3.1300	1.06109
	SERVQTY 3	2.7900	1.11085
Overall Mean		2.9633	.64742
Dispensing Pumps Accuracy			
	DISPUMP 1	3.2025	1.22689
	DISPUMP 2	3.2975	1.22587
	DISPUMP 3	3.1328	1.07034
Overall Mean		3.2083	.86450
Customer Patronage			
	CUSPATRO 1	2.855	1.43815
	CUSPATRO 2	2.730	1.14472
	CUSPATRO 3	2.885	1.24927
Overall Mean		2.820	0.7798

Sources: *Field Work (2023), Using SPSS version 25*

To determinants the patronage of petroleum product retail outlets the mean and standard deviation was described using pump price,

proximity, service quality, and dispensing pump accuracy. The mean value of each item was accepted if it is greater than or equal to 3.0 criterion. On the contrarily, any mean below 3.00 criterion indicates unfavourable

disposition towards the petroleum retail outlet constructs.

Table 1's overall mean index of the pump price, proximity, and dispensing pump accuracy of retail outlets selling petroleum products showed 3.0975, 3.0975, and 3.2083 indicating customers' favorable dispositions, which can draw them to a specific retail outlet and bolster their confidence in the amenities provided. Nonetheless, the patronage rate of 2.9620 and service quality of 2.9633, respectively, indicated a negative attitude towards a specific retail petroleum outlet. Price, proximity, dispensing pump, and

service quality had standard deviations from tables 1 of 0.69665, .98000, .86450, and .64742, respectively.

4.1 Analysis and Interpretation of Results

The hypotheses developed tested the study's model specification, with multiple regression analysis. For the test of significance, 5% (0.005) was the critical value. Thus, if the computed p-Values (sig) are higher than the 0.05(5%) level of significance, the null hypotheses would not be rejected, and vice versa. The test's summary result is shown below.

Table 2 Petroleum Products Retailing and Customers' Patronage Model Summary^b

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.842"	.787	.785	.18781	1.838
a. Predictors: (Constant), SERVQTY, DISPUMP, PRICE, PROXIMITY					

a. Predictors: (Constant), SERVQTY, DISPUMP, PRICE, PROXIMITY

b. Dependent Variable: CUSTPATRO

Table 3 Petroleum Products Retailing and Customers' Patronage ANOVA^a

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	67.953	4	16.988	404.476	<.001 ^b
	Residual	8.959	396	.022		
	Total	76.912	400			
a. Dependent Variable: CUSTPATRO						
b. Predictors: (Constant), SERVQTY, DISPUMP, PRICE, PROXIMITY						

a. Predictors: (Constant), SERVQTY, DISPUMP, PRICE, PROXIMITY

b. Dependent Variable: CUSTPATRO

Table 4 Petroleum Products Retailing and Customers' Patronage Coefficient

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.781	.055		14.200	.000
	PR	.394	.020	.404	19.700	.000
	PRO	.097	.022	.138	4.409	.000
	SERVQTY	.190	.026	.223	7.307	.000
	DISPUMP	.154	.028	.320	5.500	.000
	D.W	R Square	Adjusted R Square	Overall Std Error	F	Sig.
	1.838	0.787	0.785	0.18781	404.476	0.000

a. Dependent Variable: CUSPATRO

Sources: *SPSS version 25 Output*

The regression equation is thus: $CUSPATRO = \beta_0 + \beta_1PR + \beta_2PRO + \beta_3SERVQTY + \beta_4DISPUMP + \epsilon_i$

Therefore: $CUSPATRO = .781 + .404PR + .138PRO + .223SERVQTY + .320DISPUMP + .055$

Where:

- CUSPATRO = Customer Patronage
- PR = Pump Price
- PRO = Proximity
- SERVQTY = Service/ Quality
- DISPUMP = Dispensing Pumps Accuracy

The strength of the regression model is demonstrated by Table 2, where the combined elements of price, proximity, service quality, and dispensing pump accuracy in the regression model predict and explain 78% of the systematic variations in the customer patronage of petroleum products retail outlets. The regression model's goodness of fit with an R-squared value of .787 indicated approximately 78%. It illustrates how these factors affect patronage in a nation where the government has deregulated petroleum products. The implication is that customer satisfaction and value for money will probably be high. Also, the standard error at (.18781) indicates how far the actual value deviates from the expected value. This

suggests that there is no auto-correlation, or serial correlation, in the model displayed by the regression model with a Durbin Watson-statistic value of 1.838. As a result, the model's results are genuine, legitimate, and trustworthy in decisions making about retail locations for petroleum products.

All of the components in the regression model collectively explained about 79% of the systematic variations in the customer patronage of retail outlets selling petroleum products, even after the model adjusted for the degree of freedom. The empirical model finding has a high degree of goodness-of-fit, making it appropriate for developing policies specifically designed to address, maintain, and raise the number of customers who

frequent Nigerian retail locations selling petroleum products.

The F-statistic of 404.476 at a p-value of .000, or less than the 5% critical value, in Table 3 suggests a significant linear relationship between the retail outlets selling petroleum products and customer patronage in this study. The model is statistically predictive between the independent and dependent variables, as indicated by the p-value of .000.

The coefficients relating each construct to customer patronage in Table 4 have predictive significance, represented by a value of .000 and a constant of .781 for the expected dependent variable (customers' patronage). It indicates that each independent variable is well-liked and has a favourable disposition by customers' patronage in retail fuel stations selling petroleum products. Again, the regression model's coefficients showed the strengths of the relationship and directions between retail locations and Nigerian consumers' spending.

A one per cent change in the pump price will result in an approximate 40% increase or decrease in customer patronage, according to coefficient value for PR of .404 in Table 4. The results also showed that fewer products would be bought at higher prices and more purchases at lower prices. Since the price at the pump and customer patronage are significantly correlated, it implies that there may be a 40% negative or positive impact on customer patronage relative to the quantity demanded for every #1 change in the pump price of petroleum products. Thus, consumer spending is influenced by the petroleum products pumped price. As a result, the alternative hypothesis is accepted and the null hypothesis rejected. The results are consistent with those of Etokudo (2018) and Musa (2020), who found that consumers will choose retail locations for petroleum products with lower pump prices. Customers' expectation is to patronise retail establishments with the

lowest pump prices after fuel subsidy removal, which raised the price of petroleum.

Additionally, Table 4 coefficient value for PRO is .138, which shows that a one percentage change in PRO will translate into a 13.8% change in customer patronage. The data analysis revealed a positive correlation between customers' proximity and patronage. According to Table 1, the mean is 3.0975 points higher than the 3.00 mean criterion, indicating that customers are more amenable to proximity. The analysis implies that consumers of petroleum products will be more drawn to nearby retail locations than farther outlets. Also, there is a moderate influence on purchase, as indicated by a computed t-statistics of 4.409 and significant at 0.000, which is less than the critical value of 0.05 (5%). Thus, the rejection of the null hypothesis. Again, only a 13% impact on customer patronage, according to the regression coefficient of 0.1308, has a weak but positive relationship. However, the results are consistent with those of Adiele (2018), Akpan (2015), Inne (2021), and Musa (2020). When a retail location is closer to the customer, and all other factors are competitive, time efficiency, ease of purchase, and the cost of transportation related to the purchase process can influence consumers' behaviour. The results regarding service quality in Table 4 showed that the coefficient value for service quality was 223. This means that a one percent change in service quality will determine customer patronage of 22.3%. The mean for service quality is 2.9633, below the 3.00 criteria mean, and the mean for standard deviation, is .64742, both are extremely low. This implies that consumers in the study area have a negative attitude regarding the accuracy of the dispensing pumps. Customers may not care about the responsiveness or attitude of the pump attendant because other factors affect their decision to use a particular filling station or because pump attendants' attitudes are consistent across the board.

Additionally, table 4 t-Statistics shows 7.307 significance at 0.000, less than the 5% critical value of 0.05. It indicates a strong correlation between client loyalty and service quality. Again, the regression coefficient showed 0.22, meaning that a change in the quality of the services could affect customer patronage by as much as 22%. The results corroborate those of Magnus (2020) and Aaron et al. (2022), who found that retail outlet responsiveness affects consumers' purchases of petroleum products. Put differently, customer patronage is influenced by the service quality provided.

Lastly, the coefficient values for pump accuracy show .320, meaning that a one percent change in dispensing pump accuracy will translate into a roughly three-quarters increase or decrease in customer patronage. The coefficient table used to calculate the t-statistics shows that the t-statistics of 5.500 significant at 0.000 are less than the critical

Conclusion and Recommendations

The research looked at a few key variables affecting the retail sales of petroleum products in Warri, Delta State. Nevertheless, the following judgment was made, along with some suggestions: The petroleum industry is highly competitive, and to boost patronage, marketers should focus on factors like pump price, outlet proximity, dispensing pump accuracy, and service quality. This will help businesses stay in business, attract new clients, and endure in the volatile deregulated petroleum sector. Given how competitive the petroleum product marketing industry is, particularly in the post-subsidy era, it is advised that retailers of petroleum products focus on competitive pricing strategies at the individual outlet level to draw in and keep more customers (sales).

The factors found in this study served as instruments to highlight how important it is for businesses and decision-makers to increase consumer support for their different organizations. Task-force committees should

value of 0.05 (5%). The outcome showed a positive relationship, indicating that customer patronage and petroleum dispensing pump accuracy are significantly correlated. In addition, the average petroleum dispensing pump accuracy is 3.2083, above the 3.00 mean criteria, indicating that customers have a positive attitude regarding the pump accuracy directed towards a specific retail location. The dispensing pump's perceived accuracy and assurance with customer patronage have a positive correlation, as indicated by the regression coefficient of 0.3220. According to the coefficient, there could be a 32% impact on customer patronage from any modification or deviation in accuracy. When all else is equal, filling stations that build trust will have an advantage over rivals because customers want to receive value and satisfaction for their purchases.

monitor filling station petroleum marketers to ensure that accurate dispensing pump facilities are maintained, as this will boost customer loyalty and confidence. Customers will develop a mental image of the brand and value that will result in positive customer relationships.

Based on data analysis, it is clear that to improve customer patronage and draw in new business, petroleum product retail outlets in Delta State, Nigeria, need to build individual customer trust in price, pump accuracy, and responsiveness. According to the study, marketers of retail locations for petroleum products should make sure that their service offerings enhance customers' experiences by providing lube bay services, vulcanizing, enough space, smart, well-dressed attendants, convenient restrooms, and mini-marts.

The study concluded that while several factors influence a customer's decision to return, service quality and trust are not overemphasised in this day of consumerism and information sharing caused by ubiquitous

mobile technology. Therefore, to create and maintain a positive brand image, petroleum marketers should provide pump attendants with sufficient orientation and training to provide quality service through responsive service and civility.

Furthermore, pump attendants should be paid at least the minimum wage because both rich and poor people shop at the same markets. Also, wealthy patrons should be kind enough to extend their generosity to pump attendants by giving them some change or tip-off as a sign of support. Customer and service station owners' positive attitudes and moral support will significantly raise services provided and lower employee chum.

Customers should follow instructions and behave obediently, such as when driving in and out, lining up, and politely conversing with staff members to lessen unfavourable sentiments.

Finally, the government should form committees to keep an eye on marketers who are selling tainted goods, endangering the

public and, in the worst case, killing people in explosions. Committees should be authorised to revoke licenses, impose severe fines, or even imprison violators.

Limitations and further studies.

The study only looks at white petroleum products that fall under the downstream sub-sector of Nigeria's petroleum industry; it leaves out the upstream portion, which consists of oil exploration and drilling activities. An additional constraint of the research is that, although there are over 7000 registered filling stations, the study only included 400 samples of retail outlets selling petroleum products in Warri and its surroundings, while using just one analytical technique.

The study suggests that additional variables, a variety of analytical techniques, and an examination of marketers in the petroleum upstream sector should all be included in future studies.

References

Aaron, P.V., Wong, C.H., Aaron, R., Yip, F. (2022). Predicting of customer satisfaction at petrol stations in Malaysia. *Remilitaris.net Journal of Social Services* 12(3)

Adejoke, A. (2023). Subsidy Removal: Nigeria's daily petrol consumption figure reduces. Retrieved September 2024 from: <https://www.premiumtimesng.com/business/business-news/610411-subsidy-removal-nigerias-daily-petrol-consumption-figure-reduces.html?tztc=1>

Adiele, A. (2018). Physical evidence and customer patronage of the star hotels in FCT. *Journal of Management and Business Research* 2(3)

Ahmed, M. (2017). Trust and customer patronage in marketing of petroleum products. Lagos Apex Publications

Aizen, K. and Fisbbein, W. (2015). Customer patronage determination in petroleum

products marketing. Retrieved, September, 2024 from:

<https://www.eckoedu.org/customer>

Akazue, M. I., Okofu, S. N., Ojugo, A. A., Ekeh, P. O., Odiakaose, C. C., Emordi, F. U., Ako, R. E., AND Geteloma, V. O. (2024). Handling transactional data features via associative rule mining for mobile online shopping platform. *International Journal of Advanced Computer Science and Application*. 15(3), 530-538

Akpan, E. U. (2015). Determinants of customer patronage of petroleum products services station in Uyo metropolis, Akwaibom State. *Journal of Management and Social Sciences Research*. 13(6)

Akpevwé, A. R. (2020). Petroleum products retailing in Delta State. *Journal of APEMBUS* 2(1). Retrieved from:

<https://www.apembus.com>

- Ameachi, D. H. (2017). Service quality and customer patronage of filling stations in Port Harcourt. Port Harcourt River State AKT Publication.
- Anne, V. (2019). Physical evidence and customer patronage of hotel services in Calabar. *Journal of Management and Social Sciences*. 6(12)
- Anyanwu, A. (2018). The changing faces of marketing management in a deregulated downstream oil sector. *Journal of Business and Social Sciences*. 2(2)
- DAPMAN (2020). Depot and Petroleum Marketers Association of Nigeria. Private depots in Nigeria. Nigeria inforfinder. Retrieved from: <http://www.nigerianinfofinder.comn>
- Energy (2023). Nigeria's petrol daily consumption reduces by 33.58% — NMDPRA. Retrieved September, 2024 from: <https://www.vanguardngr.com/2023/10/nigeria-petrol-daily-consumption-reduces-by-33-58-nmdpra/>
- Dawn, L. (2019). Marketing management 5th edition. Retrieved August, 2024 from: <https://www.archive.org>details>isb>
- EMRC (2023). Nigeria spent over N700b on diesel for power generation Q2 2022. Retrieved from: <https://www.energymrc.ng>
- Etokudo, D. (2018). Pricing strategies and customer patronage of petrol station in Uyo metropolis Akwaibon State. Retrieved September, 2024 from: <https://www.ask.com>pricing>
- Fasanmi, O. O., Ogbedu, E. E. and Alabi, O. J. (2022). Trust and customer patronage of Boyas petrol station, Ilorin metropolis, Kwara State. Retrieved September 2024, from: <http://ajormsplusu.ng-trust>
- Fisbein, M. (2017). Customer patronage and dispensing pump reliability. Retrieved September 2024 from: <https://www.eckoedu.org>customer>
- Fishbein, M. and Ajzen, I. (1975) Belief, Attitude, Intention and Behaviour: An Introduction to Theory and Research. Addison-Wesley Publishing Co, Inc., Boston.
- Fishbein, M. and Ajzen, I. (1980). Understanding attitude and predicting social behaviour. Prentice-Hall, Englewood Cliffs
- Geng, H. Y. V. (2018). Services quality and customer satisfaction. *International Journal of economics and Business Research* 3(1)
- Hair, J. F., Risher, J. J., Sarstedt, M., and Ribgle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review* 31(1), 2-24. <https://doi.org/10.1108/EBR->
- Inne, B. E. (2021). Physical evidence strategies and customer patronage of filling stations in Uyo metropolis. Retrieved September 2024, from <http://scholar.google.com-physicalevidence>
- Integrity (2024). Integrity (2024). Fuel prices in major filling stations in Nigeria. Retrieved September, 2024 from: <https://intercity.ng/fuel-price>
- Komolafe, G. (2024). Nigeria: Leading crude oil producer in Africa. Retrieved august, 2024 from: <https://www.nuprc.gov.ng/nigeria-leading-crude-oil-producer-in-africa/>
- Kotler, P. and Armstrong, G. (2018). Principles of marketing 17th edition. Retrieved September, 2024 from: <https://www.pearson.com.>principles>
- Magnus, C. (2020). Distribution analysis and customer patronage of petroleum products: A study of Oando PLC and Forte oil PLC Abia State. Retrieved September 2024, from: <http://repository.mouau.edu.ng-distribution>
- Mark, G. (2023). Principles of marketing. Open textbook library. Retrieved August 2024, from: <https://www.archive.org>details>isb>
- Muhammad, Z, S., Kashif, S. A. and Safeem, P. (2019). The effect of customer trust on customer royalty and reteun. A moderating role of cause-related marketing. *Global journal of Management and Business Research* 12(7)
- Musa, M., Mikhall, K. and Tattyana, C. A. (2020). Determinants of consumer preference

- for petroleum consumption. The case study of petrol retail in the Gambia. *International Journal of Energy Product and Management*. 5(2). Retrieved September, 2024 from: <https://www.ijepm.org.>determinant>
- Negi, N. (2019). Impact of trust on consumer patronage of petrol filling station in Ethiopia. *International Journal of Management and Social Sciences Research*
- NMDPRA (2023). Nigeria midstream and downstream petroleum regulation agency. Nigeria petrol consumption reduces by 33.58%. retrieved September, 2024 from: <https://www.vanguardngr.com/2023/10/nigeria-petrol-daily-consumption-reduces-by-33-58-nmdpra/>
- Ogbunamiri, C. and Agu, G. A. (2022). Drivers of customer loyalty in the downstream petroleum subsector in Nigeria. *Journal of Social Sciences and Humanity* 2(2), 98-112. Retrieved September, 2024 from: <http://doi.org/10.35877/soshum737>
- Ogwo, E. O. and Agu, G. A. (2016). Comparative assessment of the pre and post subsidy removal marketing performance of petroleum marketers in Nigeria. *African Journal of education Science and Technology* 3(1), 116-127.
- Okechukwu, N. and Akintayo, O. (2022). NNPC raises major marketers from seven to 27. Retrieved September, 2014 from: <https://punchng.com/nnpc-raises-major-marketers-from-seven-to-27/>
- Okeke, M. (2020). Customer patronage empirical analysis of petroleum products retailing. Benin City, Edo State. Verox publication
- Okofu, S.N. (2021). Virtual airtime purchase in Nigeria: consumer attitude, behaviour and continuous usage. Retrieved September, 2024 From: <https://hdl.handle.net/10539/33273>
- Okofu, S. N., Anazie, K. E., Akazue, M. I., Okpor, M.D, OweimIeto, A. E., Asuai, C. E., Nwokolo, A. G., Ojugo, A. A., and Ojei, E. O. (2024). Pilot study on customer preference, intention and trust on purchase-pattern for online virtual shops. *International Journal of Advanced Computer Science and Applications*. 15(7), 804-811
- Okofu, S. N., Kiziti, A. E., Akazua, M. I., Ogeh, C., and Ajenaghughrure, B.I., (2023). The interplay between trust in human-like technologies and integral emotion: Google assistant. *KZYJC*. 38(1), 809-829
- Onoruese, V. (2016). Petroleum economic introduction to the Nigeria petroleum industry. Benin City Edo State Nigeria. Micah Publishers
- OPEC, 2018
- Rosemary, E. W. (2019). Product branding and customer patronage of petroleum products. Benin City, Edo State. Micah Publishers
- Saduwa, J. R. (2017). Petroleum product retailing and customer buying decision making. *Delta State Journal of APEMBUS* 2(2)
- Umukoro, E. (2017). Sales promotion strategies and customer patronage of petroleum products retail outlets in Delta State. Benin City, Vico Publishers



Environmental and Social Practices as Determinants of Financial Performance of Listed Industrial Goods Firms in Nigeria

APETE, Collins

Department of Accounting,
Faculty of Management Sciences,
Delta State University, Abraka, Nigeria;
Email: collinzo78@yahoo.co.uk

Publication Date: 2025/06/30

Abstract

Environmental and social credentials have become a global trend; hence have become vital because companies need to spread awareness of their responsibilities for sustainable growth and their multi-dimensional effect on the society. In this study, we examined if environmental and social practices are determinants of financial performance of listed industrial goods firms in Nigeria. The dependent variable is financial performance (proxied by profit margin) and the independent variable is environmental and social practices. Ex-post facto research design was used and ten (10) listed industrial goods firms were sampled. Data was obtained from the annual reports and accounts of the publicly listed firms from 2012-2023 and data collected was analyzed via descriptive and inferential statistics. The panel least square regression result indicates among others that environmental and social practices have statistically significant influence on financial performance of listed industrial firms in Nigeria. On the basis of the findings, the study recommends among others, the need for Nigerian government to improve environmental and social performance evaluation systems aimed at improving corporate performance and be able to meet with global best practices. ,

Keywords: *Environmental practice; Social practice; Financial performance; Industrial goods*
JEL Classification: *M41; M49*

Introduction

Due to the need for businesses to increase their knowledge of their multifaceted impact on society and their obligations for sustainable growth, environmental and social values have gained international attention and are becoming more and more important. According to Kaakeh and Gokmenoglu (2022), companies are adopting sustainability strategies, which have resulted in an unavoidable change in business models and management practices. This is because sustainable development in all areas of activity is increasingly being demanded to become a mandatory requirement at the global

level (Chang & Lee, 2022; Chien, 2023). Businesses are using the best strategies to maximise stakeholder value and reach their financial objectives (Al-Amosh et al., 2022). The growing efforts made by businesses to accurately evaluate their dedication to sustainability and global long-term development goals are thus indicative of the practical use of this innovative paradigm (Chang & Lee, 2022). In order to share and/or disclose information on business sustainability with stakeholders, companies who are eager to publish information on their social and environmental practices do so (Chang & Lee, 2022). Focussing on metrics to gauge an organization's performance in

tackling social and environmental concerns or putting policies into place that affect corporate governance, is one of the direction of this approach (Veenstra & Ellemers, 2020). Social and environmental metrics are now crucial for businesses and investors. As a result, while choosing portfolios, shareholders are increasingly taking ethical and environmental standards into account. They can use the information to guide investments that can benefit the company and its shareholders in both social and environmental ways (Orsato et al., 2015; Tiron-Tudor et al., 2022).

Environmental, social, and corporate governance indicators are among the parameters that financial and management professionals use to distinguish between different possible investments. These are all justifications for businesses to take non-monetary goals into account when conducting their operations (Noja et al., 2024). The need to prioritise both short-term and long-term goals, and occasionally forgo optimising short-term financial performance in order to meet pressing social and environmental goals, makes it difficult for business managers to strike a balance between raising financial performance and the complex and high expectations of various stakeholders. According to Veenstra and Ellemers (2020), this balance is frequently reached when reducing the adverse effects of business activities on the environment and society does not compromise financial performance.

Many studies have looked at the connection between financial performance and social and environmental practices, but most of them have only looked at one aspect, like social and environmental governance practices (Kouaib et al., 2020; Kaakeh & Gokmenoglu, 2022; Mu et al., 2022). Due to their breadth and comprehensiveness, the integrated assessments of two aspects (environmental and social practices) are seen to be somewhat difficult to handle. In light of this, the current

study attempts to close the gap and tackle this issue by examining the relationship between social and environmental practices and the performance of listed industrial products companies using a fresh, all-encompassing methodology.

Review of Related Literature

Environmental Practice

Due to the impact of pollution, stakeholders, both internal and external, have recently become more interested in the environmental performance of private organisations (Jasch, 2006). While external stakeholders include communities impacted by local pollution, environmental activist groups, government regulators, shareholders, investors, consumers, suppliers, and others, internal stakeholders, such as employees, may be impacted by pollution in the workplace (Jasch, 2006). Therefore, the enterprise must apply best management practices to reduce waste, hazardous waste, water discharge, spills, air emissions (greenhouse gases, ozone-depleting compounds, carbon dioxide), and its influence on biodiversity.

The management of the company should also make sure that natural resources are used as efficiently as possible during the production process. Support for cutting-edge technology and product innovation could improve environmental performance since it shows how well a business can reduce environmental costs and burdens for its clients, opening up new markets through eco-friendly technologies and processes or long-lasting, eco-designed, dematerialised products (Noja et al., 2024). According to Melnyk, Sroufe, and Calantone (2003), improved environmental performance can draw in new stakeholders and increase the firm's value.

In addition to avoiding the negative business effects of contamination, including good environmental practices into operational activities can result in reasonable cost savings (IFAC, 2005). The accounting literature has

seen a significant surge in study on environmental performance in line with the aforementioned concerns. Al-Tuwaijri, Christensen, and Hughes (2004) examined the environmental effects of business operations, including the release of toxic wastes that have been recycled, the amount of pollution in water that has been discharged, non-compliance with environmental regulations, and environmental ratings of companies created by outside organisations.

Numerous techniques have been tested by researchers (Jalaluddin, Sulaiman & Nik-Ahmad, 2010; Henri & Journeault, 2010) to evaluate the environmental performance of the scope of pollution control efficiency and to improve the performance of the organisation. However, Elsayed and Paton (2005) employed three different metrics to assess economic or corporate performance: return on equity, return on assets, and Tobin's Q. Their research shows that financial performance is less affected by environmental performance.

Social Practice

Businesses should be socially accountable since improperly managed environmental activities will have an impact on the environment, people, and profits. Numerous books have been written about how businesses can be socially responsible (Indarawati, Ruhanita & Nor, 2016). The performance demonstrates that what counts is what businesses can do as a result of accepting social responsibility and embracing a responsiveness mindset. Therefore, the business should be socially conscious and attentive to social issues in order to foster trust and loyalty among its employees, clients, and the general public.

Product responsibility, community, human rights, diversity and opportunity, employment quality, health and safety, and training and development are all indicators of a socially conscious business (Noja et al., 2024).

According to Barnett and Salomon (2012), companies with low social practices outperform those with moderate social practices in terms of financial performance, whereas companies with high social practices outperform those with moderate social practices. According to Indarawati, Ruhanita, and Nor (2016), this bolsters the theoretical claim that stakeholders have the ability to turn social duty into financial gain. Product responsibility, community, human rights, diversity and opportunity, employment quality, health and safety, and training and development are all indicators of a socially conscious business (Noja et al., 2024).

Wagner (2010) discovered that there is no direct correlation between social practice and economic performance according to this perspective. Advertising appears to be the sole way that corporate social performance and economic performance are positively correlated (Noja et al., 2024). It demonstrates how important it is to inform pertinent stakeholders—such as customers, NGOs, or regulatory bodies—about socially conscious initiatives in order for businesses to stay competitive.

Financial Performance

For many years, there has been a lot of discussion on how environmental management practices affect business economic performance and competitiveness. Financial performance can be directly reflected in both financial and non-financial indexes. Non-financial indicators include market share, sales area, and customer count, whereas financial indices include sales, profitability, inventory turnover, and return on equity (Earnhart & Lizal, 2010). By generating fair returns through a targeted and open long-term communications plan with its shareholders, the company can also retain a devoted following. Dependability and customer satisfaction result in realistic and sustained revenue growth (Noja et al., 2024).

Economic performance is typically linked to company environmental management policies. Adopting innovative environmental practices, such as reducing pollution sources and operating in more environmentally friendly methods, can lower trash disposal costs and penalties, which can help businesses financially (Aragón-Correa et al., 2008). The empirical study on economic, social, and environmental performance, however, produced contradictory results. According to Orlitzky, Schmidt, and Rynes (2003), there is little evidence of a weak link and some for a weak but statistically significant positive link between economic success and the environment. The results range from negative to negligible to moderately or even significantly positive. Margolis and Walsh (2003) stated that the majority of research points to a favourable link between economic and environmental performance.

Theoretical Framework

The stakeholder idea served as the foundation for this investigation. In 1970, the discipline of management adopted stakeholder theory, which Freeman progressively expanded in 1984 to include corporate accountability to a wide spectrum of stakeholders. According to Wheeler, Colbert, and Freeman (2003), the sociology and organisational fields combined to create stakeholder theory. Stakeholder theory is, in fact, more of a broad study tradition that integrates philosophy, ethics, political theory, economics, law, and organisational science than it is a formal, cohesive theory. "Any group or individual who can affect or is affected by the achievement of the organization's objectives" is the definition of stakeholder theory.

Stakeholder theorists contend that managers in organisations have a network of ties to serve, including suppliers, employees, and business partners, in contrast to agency theory, which holds that managers work and serve the stakeholders. According to agency theory, this

network group is significant in addition to the owner-manager-employee relationship (Freeman, 1999). Freeman (1999), on the other hand, argues that stakeholder theory aims to address the group of stakeholders who deserve and need management's attention. However, the firm is a system with stakeholders, and the organization's goal is to generate income for its stakeholders, according to Omoye and Wilson-Oshilim (2018).

Since stakeholder theory focusses on the nature of these interactions in terms of both procedures and consequences for the enterprise and its stakeholders, Freeman (1984) argues that the network of relationships with numerous organisations might influence decision making processes. All stakeholders' interests have inherent value, according to this theory, which focusses on managerial decision-making. It is not expected that one group of interests will predominate over the others. We used agency theory to investigate the connection between financial, social, and environmental performance. According to the agency theory, businesses have a legally obligatory fiduciary obligation to prioritise the demands and expectations of their shareholders in order to increase wealth as a means of providing incentives for them (Ifeani et al., 2016).

From the standpoint of shareholders, businesses ought to fund initiatives that optimise profits while reducing expenses. Other goals would reduce the effectiveness of the company. From a short-term standpoint, companies aim to maximise shareholder value. However, from a stakeholder perspective, businesses must satisfy a wide range of stakeholders, including workers, consumers, suppliers, financiers, communities, governmental entities, political parties, trade associations, and trade unions, in addition to shareholders (Ifeani et al., 2016). Stakeholder relationships are crucial in expressing social and environmental responsibility, which

benefits businesses (Barnett & Salomon, 2012).

To achieve long-term existence and prosperity, organisations must satisfy the various stakeholders, each of whom has distinct expectations for the performance of the company. Sustainability practices, or ESG practices as articulated through ESG reporting, are expected by core groups of stakeholders. In addition to regulatory enforcement, firms are under pressure from their many stakeholders to meet demands for various forms of performance (Omoye & Wilson-Oshilim, 2018). This study's foundation is agency theory, which explains how companies should operate by maximising shareholder value and stakeholder welfare, respectively. Through financial performance

metrics like ROE or return on invested capital (ROIC), agency theory shows how to maximise shareholder value. We can investigate ESG practices, where businesses protect stakeholders' interests; the framework describes the one-way relationship between economic performance and ESG practices.

Methodology

This study adopted *ex-post facto* research design. The study population comprised of twelve listed industrial goods firms in Nigeria and the purposive sampling was employed in selecting ten (10) listed industrial firms on the Nigerian Exchange Group (NGX) Limited. The study used secondary data sourced from annual reports of the sampled companies from

2012-2023. The model specification is as given as follows:

$$PM = f(ENV, CSR, FSIZ) \tag{eq. 1}$$

The model is expanded into econometric form;

$$PM_{it} = \beta_0 + \beta_1 ENV_{it} + \beta_2 CSR_{it} + \beta_3 FSIZ_{it} + e_{it} \tag{eq. 2}$$

Where: β_0 = Intercept; $\beta_1 - \beta_3$ = are the parameters to be estimated in the equation; PM = Profit Margin; ENV = Environmental Practice; CSR = Social Practice; FSIZ = Firm Size; i = Firm intercept; t = Time intercept (in this case 10 years); e = Stochastic error term

Table 1: Variable Description and Measurements

Variable	Expression	Measurement	Author/Year
Profit Margin	PM	net profit over divided by total asset	Andrew (2021); Chip (2021)
Environmental Practice	EVD	Dummy variable (1 or 0)	Nina & Cyrielle (2014);
Social Practice	CSR	Dummy variable (1 or 0)	Nina & Cyrielle (2014)
Firm Size	FSIZ	Natural logarithm of total assets at end of fiscal year	Nisan, (2014)

Source: Field Study, (2025)

Results and Discussions

Table 2: Summary Statistics

	PM	EVD	CSRD	FSZ
Mean	-0.418047	56.25000	51.66667	7.333749
Median	-0.334086	62.50000	50.00000	7.275292
Maximum	0.056730	62.50000	60.00000	7.792330
Minimum	-1.177719	37.50000	40.00000	7.032656
Standard Deviation	0.397517	10.87071	5.550885	0.214816
Skewness	-0.464661	-1.154701	0.054820	0.702632
Kurtosis	1.983542	2.333333	2.950413	2.633564
Jarque-Bera	9.484128	28.88889	0.072399	10.54521
Probability	0.008721	0.000001	0.964448	0.005130
Sum	-50.16563	6750.000	6200.000	880.0499
Sum Square Deviation	18.80439	14062.50	3666.667	5.491356

Source: Field Study, (2025)

Table 2 presents the descriptive statistics for the different variables of the study with an observation of 120 (10 firms x 12years). Mean is the most commonly used measure of central tendency. The standard deviations show the deviation/dispersion/variation from the mean. It is a measure of risk, the higher the standard deviation, the higher the risk. The standard deviation is a measure that summarizes the amount by which every value within a dataset varies from the mean. It is the most robust and widely used measure of dispersion. skewness is the measure of how

much the probability distribution of a random variable deviates from the normal distribution. The result delineates that probability distribution for CSRD (0.054820) and FSZ (0.702632) is positively skewed distribution, while the probability distribution for PM (-0.464661); and EVD (-1.154701) is a negatively skewed distribution. The probability values of Jarque-Bera Statistics shows that EVD=28.88889; CSRD=0.072399 and LFSZ=10.54521 are statistically significant at 5% except CSRD.

Table 3: Pearson Correlation Matrix

	FM	EVD	CSRD	FSZ
FM	1.0000			
EVD	0.04442	1.0000		
CSRD	0.36127	-0.52223	1.0000	
FSZ	-0.53089	0.12529	-0.48258	1.0000

Source: Field Study (2025)

From the findings on the correlation analysis, the study revealed a positive relationship between CSRD, and FM by correlation factors of 0.665, 0.525, respectively, while a negative association exists between EVD (-0.391); FSZ (-0.890) and FM. Multicollinearity is the occurrence of high intercorrelations among two or more independent variables in a multiple regression model. Multicollinearity can lead to wider confidence intervals that produce less reliable probabilities in terms of the effect of independent variables in a model (Frost, 2021).

Table 4: Panel Least Square Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.065871	0.964026	3.180279	0.0019
EVD	-0.013270	0.001319	-10.06426	0.0000
CSRD	0.026374	0.002858	9.229395	0.0000
FSZ	-0.599148	0.116318	-5.150935	0.0000
R-squared	0.930185	Mean dependent var		-0.418047
Adjusted R-squared	0.927757	S.D. dependent var		0.397517
Sum squared residual	1.312825	Schwarz criterion		-1.477954
Log likelihood	100.6460	Hannan-Quinn criter.		-1.546932
F-statistic	383.0536			
Prob(F-statistic)	0.000000			

Source: Field Study (2025)

Table 4 is the regression analysis to test the relationship between environmental, social and profit margin. Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in the table 4.3, the value of adjusted R squared was 0.93, an indication that there was variation of 93% on profit margin due to changes in environmental and social practices. This implies that only 93% changes in profit margin of the firms could be accounted for by independent variables while 7% was explained by unknown variables that were not included in the model.

The F-statistic of the regression is equal to 383.0536 and the associated F-statistical probability is equal to 0.00000, implies that environmental social practices have statistically significant effect on profit margin of the industrial goods. Since the P-value of 0.000 is less than the critical value of 5% (0.05), then, it would be upheld that environmental practice has significantly affect financial performance of industrial firms in Nigeria at 5% level of significance.

This result is in line with Omoye and Wilson-Oshilim (2018) who found that firm size have significant and positive relationship with environmental practice. But Nur, Suganthi and Yuen (2023) results showed that individual environmental score has a negative impact on ROA but a positive impact on ROE and Tobin's Q. Also the study of Kim and Lee (2023) results showed a negative association between earnings announcement and ESG scores (i.e., earnings announcement on Friday and firms that omit preliminary earnings announcements)

Furthermore, the study revealed that the probability of the slope coefficients indicate that; P-value =0.000<0.05). The co-efficient value of; $\beta_1= 0.026374$; $t = 9.229395$, implies that social practices is positively related to financial performance, and also statistically significant at 5%. This result agreed with Rahmatulloh, and Suranta (2023) who revealed that the social and environmental index exerts a positive and statistically significant influence on ROA, ROE, and Tobin's Q. Furthermore, it is noteworthy that earnings management does not possess the capacity to moderate the relationship between ESG and company performance.

This result is not inconformity with Nur, Suganthi and Yuen (2023) results indicates that social disclosure on its own has an insignificant negative influence on all variables and governance has a positive but insignificant impact on all variables (ROA, ROE and Tobin's Q). Also the study of Kim and Lee (2023) results showed a negative association between earnings announcement and environmental, social and governance practices.

Conclusion and Recommendations

The study investigated the influence of environmental and social practices on financial performance of listed industrial goods firms in Nigeria. Data obtained were analyzed with descriptive and inferential statistics. The panel least square regression result indicates among others that environmental and social practices have statistically significant influence on financial performance of listed industrial firms in Nigeria. On this note, the study concludes

that environmental and social practices are determinants of financial performance of listed industrial goods firms in Nigeria. On the basis of the findings, the study recommends among others, the need for Nigerian government to improve environmental and social performance evaluation systems aimed at improving corporate performance and be able to meet with global best practices. ,

References

- Al-Amosh, H., Khatib, S.F.A. & Ananzeh, H. (2022). Environmental, social and governance impact on financial performance: Evidence from the Levant countries. *Corporate Governance: The International Journal of Business in Society*, 23(3), 493–513. doi.org/10.1108/cg-03-2022-0105
- Al-Tuwajri, S.A., Christensen, T.E & Hughes, K. (2004). The relations among environmental disclosure, environmental performance and economic performance: A simultaneous equations approach. *Accounting, Organizations and Society*, 29(5-6), 447-471.
- Aragón-Correa, J.A. Hurtado-Torres, N. Sharma, S. & García-Morales, V.J. (2008). Environmental strategy and performance in small firms: A resource-based perspective. *Journal of Environmental Management*, 86(1), 88-103.
- Barnett, M.L. & Salomon, R.M. (2012). Does it pay to be really good? Addressing the shape of the relationship between social and financial performance. *Strategic Management Journal*, 33(11), 1304–1320. doi.org/10.1002/smj.1980
- Chang, Y.-J. & Lee, B-H. (2022). The impact of ESG activities on firm value: Multi-level analysis of industrial characteristics. *Sustainability*, 14(21), 14444. doi.org/10.3390/su142114444.
- Chien, F. (2023). The impact of green investment, eco-innovation, and financial inclusion on sustainable development: Evidence from China. *Engineering Economics*, 34(1), 17-31. doi.org/10.5755/j01.ee.34.1.32159
- Earnhart, D. & Lizal, L. (2010). Effect of corporate economic performance on firm-level environmental performance in a transition economy. *Environmental and Resource Economics*, 46(3), 303-329
- Elsayed, K. & Paton, D. (2005). The impact of environmental performance on firm performance: Static and dynamic panel data evidence. *Structural Change and Economic Dynamics*, 16(3) 395-412
- Habib, A. M. (2023). Does real earnings management affect a firm's environmental, social, and governance (ESG), financial performance, and total value? A moderated mediation analysis. *Environment, Development and Sustainability*, 1-30.
- Hoepner, A.G.F., Oikonomou, I., Sautner, Z., Starks, L.T. & Zhou, X. (2019). ESG shareholder engagement and downside risk. *Working Paper*. Available at: <https://ssrn.com/abstract=2874252>
- IFAC. (2005). *Environmental management accounting*. Macmillan Publisher: United States of America.

- Ifeani, O.E., Oge, M.G. & Gozie, A.C. (2016). Effective stakeholders' management in banking industries", *International Journal of Information, Business and Management*, 4(1), 32-36.
- Indarawati T., Ruhanita M. & Nor H.T. (2016). The impact of environmental, social and governance practices (ESG) on economic performance: Evidence from ESG score. *International Journal of Trade, Economics and Finance*, 7(3)
- Jalaluddin, D. Sulaiman, M. & Nik Ahmad, N.N. (2010). Environmental management accounting: An empirical investigation of manufacturing companies in Malaysia. *Journal of the Asian Pacific Centre for Environmental Accountability*, 16(3).
- Jasch, C. (2006). Environmental management accounting (EMA) as the next step in the evolution of management accounting. *Journal of Cleaner Production*, 14(14), 1190-1193.
- Kaakeh, M. & Gokmenoglu, K.K. (2022). Environmental performance and financial performance during COVID-19 outbreak: Insight from Chinese firms. *Frontiers in Environmental Science*, 10, 975924. doi.org/10.3389/fenvs.2022.975924.
- Kim, J. & Lee, Y. (2023). Association between Earnings Announcement behaviours and ESG Performances. *Sustainability*, 15(9), 7733.
- Kouaib, A., Mhiri, S. & Jarboui, A. (2020). Board of directors' effectiveness and sustainable performance: The triple bottom line. *The Journal of High Technology Management Research*, 31(2), 100390. doi.org/10.1016/j.hitech.2020.100390
- Margolis J.D. & Walsh, J.P. (2003). Misery loves rethinking companies: Social initiatives by business," *Administrative Science Quarterly*, 48(2), 268-305,
- Melnyk, S.A. Sroufe R.P. & Calantone, R. (2003). Assessing the impact of environmental management systems on corporate and environmental performance. *Journal of Operations Management*, 21(1), 329-351.
- Mu, S., Wang, X., & Mohiuddin, M. (2022). Impact of environmental protection regulations on corporate performance from Porter hypothesis perspective: A study based on publicly listed manufacturing firms data. *Frontiers in Environmental Science*, 10, 928697. doi.org/10.3389/fenvs.2022.928697
- Noja, G. G., Baditoiu, B. R., Buglea, A., Munteanu, V. P. & Gligor Cimpoiu, D.C. (2024). The impact of environmental, social and governance policies on companies' financial and economic performance: A comprehensive approach and new empirical evidence. *E&M Economics and Management*, 27(1), 121-144. doi.org/10.15240/tul/001/2024-1-008
- Nur B.S., Suganthi, R. & Yuen Y.Y. (2023). The effect of environmental, social and governance criteria on the corporate value of listed companies in Malaysia. *Asian Economic and Financial Review* 13(5), 338-352: doi: 10.55493/5002.v13i5.4782
- Omoye, A.S. & Wilson-Oshilim, U.D. (2018). Antecedents of environmental disclosure in Nigeria. *Accounting & Taxation Review*, 2(2), 101-116.
- Orlitzky, M. Schmidt, F.L. & Rynes, S.L (2003). Corporate social and financial performance: A meta-analysis. *Organization Studies*, 24, 403-441
- Orsato, R.J., Garcia, A., Mendes-Da-Silva, W., Simonetti, R. & Monzoni, M. (2015). Sustainability indexes: Why join in? A study of the corporate sustainability index (ISE) in Brazil. *Journal of Cleaner Production*, 96, 161-170. doi.org/10.1016/j.jclepro.2014.10.071

- Rahmatulloh, R. & Suranta, E. (2023). The effect of environmental, social, and governance (ESG) on firm performance with earnings management as a moderation: Empirical evidence around COVID-19. *Ilomata International Journal of Tax and Accounting*, 4(4), 846-862. doi.org/10.52728/ijtc.v4i4.937.
- Tiron-Tudor, A., Hurghis, R., & Topor, D. I. (2022). A holistic review of determinants and effects of integrated reporting adoption. *E&M Economics and Management*, 25(4), 100-117. doi.org/10.15240/tul/001/2022-4-007.
- Veenstra, E.M., & Ellemers, N. (2020). ESG indicators as organizational performance goals: Do rating agencies encourage a holistic approach? *Sustainability*, 12(24), 10228. doi.org/10.3390/su122410228
- Wagner, M. (2010). The role of corporate sustainability performance for economic performance: A firm-level analysis of moderation effects. *Ecological Economics*, 69(7), 1553-1560,



Amnesty Programme and the Sustainable Peace and Development of the Niger Delta Region of Nigeria

ESIERE, Emuesiri Joshua Ph.D

Delta State University, Abraka,

Delta State, Nigeria.

esiere-emuesirijoshua@delsu.edu.ng

Publication Date: 2025/06/30

Abstract

The Niger Delta region of Nigeria, where oil multinational corporations (MNCs) conduct the nation's oil exploration activities, is plagued by environmental degradation from gas flaring and oil spills. With the strong cooperation of the oil multinational corporations, the country's successive administrations not only ignored the people and other non-governmental groups' pleas for attention to the region, but also occasionally responded with crackdowns and repression. The crisis escalated when the locals in this area resorted to self-defense by bombing, kidnapping, and capturing foreign workers and other employees of the oil multinational corporations in return for cash ransom. The government created the amnesty program in 2009 as a way out of the quagmire because it could no longer stand the humiliation, the decline in daily oil output, and the significant financial loss. This study examines the impact of the amnesty program on long term peace and sustainable development in the Niger Delta. Using a qualitative data analysis approach and a historical research methodology, the study is grounded in conflict transformation theory which argues among other things, that all social groups should have equal access to the Amnesty program in order to establish a system of peace, regardless of their ethnic background or affiliation. To satisfy the Niger Deltas' demands for unfettered rights, all tiers of government— local, state, and federal—must carry out their obligations to the people. The federal government and its National Security Agencies (NSAs) should take adequate action to combat insecurity and the spread of weapons across the country.

Keywords: *Amnesty, Niger Delta, Disarmament, Demobilization, Reintegration, Development.*

Introduction

The concept of amnesty is not new. The word "amnesty" is a Greek word that comes from "amnestia," which is defined as an act of grace in which the state's supreme authority restores those who may have committed any offense against it to the status of innocent persons (Novus homo). It goes beyond a pardon in that it erases all legal reminders of the offenses. It is also the government's act of power to pardon people, particularly for political offenses, and to absolve them of the

guilt or punishment associated with those offenses (Ikelegbe & Umokoro 2014).

Different types of amnesty programs exist. Delinquent taxpayers amnesty get a onetime chance to settle their accounts by paying taxes and interest without facing criminal penalties. Tax amnesty may help governments generate more income, but it may also enrage law abiding taxpayers who don't like it when tax defaulters receive tax incentives. The goal of the amnesty policy was to lessen France's overcrowded prison system. However, governments all around the world now

regularly implement such policies (Ogannah, 2009).

Amnesties, which target common crime, are now a common part of presidential campaigns. Historically, they were utilized as a tool for national reconciliation following political crises. The goal of the so called housing amnesty initiative is to give the populace access to inexpensive housing. Although the concept of amnesty is not new to Nigerians, the current amnesty program's scope and significant financial implications is to assist end insurgency in the oil rich Niger Delta region. It was for this intent the Nigerian government made the decision to implement the approach (Akinwale, 2010).

According to Watts (2006), the Nigerian scenario serves as an example of how oil based development fails. The Nigerian government was unable to ignore the Niger Delta issue any longer, primarily because crude oil, which provides roughly 90% of the country's foreign earnings, has steadily grown to be the foundation of the Nigerian economy. Crude oil production in the Niger Delta hit a record low of 700,000 barrels per day during the height of youth unrest. This is because young people in the Niger Delta actively participated in activities that disrupted the region's exploration process, such as vandalizing oil sites, kidnapping oil workers, and bunkering. Following extensive discussion, the Late Umar Ya'adua administration chose to implement a new policy known as the "Presidential Amnesty Program" in order to help provide a solution to the threat of violence in the Niger Delta region (Ejovi, & Ebie, 2013).

Statement of the Problem

The goal of the Niger Delta insurgents' amnesty was to bring about a lasting peace and foster an atmosphere that would hasten sustainable development. It was a tactic used to put an end to militancy or insurgency and restore peace to the unstable Niger Delta

region of Nigeria in order to enable the continuous oil exploration and consequently increased revenue for the Nigerian state and to generate revenue that would be used to address a variety of issues related to underdevelopment in the Niger Delta region. It was therefore intended to clear the Niger Delta of the militant youths in order to protect the oil industry in the region. This study examines how the amnesty program has brought about peace and sustainable development to the Niger Delta region. The statement of problem for the study is: What are the noticeable consequences of the amnesty program in the Niger Delta region of Nigeria?

Research Method

This study employed a qualitative approach, utilizing a historical research design that relied on secondary data sources and content analysis.

Conceptual and Literature Review

The Amnesty Program

The Presidential Panel on Amnesty and Disarmament of Militants in the Niger Delta made recommendations that served as the basis for the amnesty program for the region. The panel was established on May 5, 2009, to carry out the NTDC's recommendations on giving Niger Delta militants amnesty. Then, on June 25, 2009, President Umaru Yar'adua declared amnesty for the insurgents in the Niger Delta. Section 175 of the 1999 constitution, which grants the President of the Federal Republic of Nigeria certain powers, was a major source of support for the declaration (Iyabobola, 2015).

1. I hereby offer everyone who has directly or indirectly taken part in the commission of crimes related to militant activity in the Niger Delta amnesty and unconditional pardon.

2. The pardon will take effect when the affected individuals surrender and turn over all weapons, ammunition, and equipment, as

well as complete the renunciation of militancy forms listed in the schedule hereto, at the closest collection center set up for government purposes in each of the Niger Delta states.

3. Everyone currently facing charges related to militant activity will be eligible for the unconditional pardon granted under this proclamation.

4. This declaration will no longer be in force as of Sunday, October 4, 2009. None of the militants were forced to accept the offer of amnesty by the proclamation of the amnesty program. Only those who willingly accepted the offer were given contracts by the government, and they were thereafter subjected to a proper and non-coercive DDR procedure (Iyabobola, 2015).

There was a 60-day opportunity for the militants to turn in their weapons (i.e., accept the offer of amnesty). August 6–October 4, 2009, was the time frame for the 60 days. There are four parts to the amnesty scheme. These include the DDR, infrastructure, petroleum, and environmental subcommittees. Nonetheless, peace and stability in the Niger Delta are directly impacted by the DDR component (Iyabobola, 2015).

Ndutimi Alaibe, the Federal Government's National Coordinator and Chief Accounting Officer, claimed that in order to calm the unrest in the Niger Delta, the Nigerian federal government granted militants amnesty in 2009. The then President responded to the security issues by implementing a fundamental reduction in the level of violence occurring. Following stakeholder deliberation, it was determined that the militants needed to surrender their weapons. That served as the foundation for the amnesty, which was intended to maintain, stabilize, and solidify the security situation in the Niger Delta region as a necessary condition for fostering regional economic growth (The Daily Independent, June 3, 2012). The Niger Delta saw around seven years of comparatively calm conditions

following President Umaru Musa Yar'adua's 2007 proclamation of amnesty (Igbini, 2020).

The amnesty procedure raised a lot of problems. First, all three elements of the process must be integrated and carried out for "disarmament, demobilization, and reintegration" (DDR) to be successful. Reintegration, which should involve resettlement, training, alternative jobs, etc., was not thoroughly planned for in the Niger Delta's current approach. The willingness of certain oil firms to help with technical training to improve the employability of those granted amnesty was one possible resource that was not utilized. Second, it was likely that just a small portion of the weapons that were in use were turned in, and it's unclear even if the weapons being turned in were utilized by the militants. This is true of most DDR programs worldwide. Third, a DDR process must be a component of a larger peace process in order to be fully successful.

DDR is unlikely to be successful if the militants' and other Delta residents' complaints were not addressed. Fourth, inviting foreign monitors as witnesses with the guarantee that the weapons surrendered were rendered useless will boost the trust of many militants in the disarmament process. The administration, however, opposed foreign observers. Fifth, some militants believed that the amnesty process is being used to incite conflict among the militants. What is the government's plan at the conclusion of the amnesty program, one could wonder? Are there going to be real peace talks with the demobilized militants? What happens if the main insurgent leaders reject the amnesty?

The area was once more besieged by militants known as "the Niger Delta Avengers" in May 2016. Utilizing the Delta's intricate, creek filled terrain to keep one step ahead of the Nigerian soldiers pursuing them, they operated in groups, carried small arms and explosives, blow up pipelines, and sabotage

installations in order to destroy oil infrastructures.

Militants: Disarmed and Registered

Disarmament is the process by which former combatants turn in their weapons and ammunition at specified locations or camps, signifying the end of hostilities. Amnesty in the Niger Delta has helped a sizable portion of militants give up their weapons and accept peace. In accordance with the amnesty granted 30,000 members of various militant groups from the nine (9) oilproducing states that made up the Niger Delta turned in their weapons and ammunition and registered at the various arms collection centers for the demobilization process. In particular, it further demonstrates that in the first phase, 20,049 militants were disarmed and registered; in the second phase, 6166 militants were disarmed and registered; and in the third phase, 3,642 militants were disarmed and registered. While precise numbers on the number of militants in the Niger Delta states are not given, the literature recorded the total, which is used for the third phase appropriately demonstrating that, by the conclusion of the third stage, the states of Bayelsa, Rivers, and Delta had the most number of militants disarmed (Lanre and Shaibu, 2019).

Ex-militants were Demobilized and Reintegrated

Demobilization, according to Egwu (2013), is the process of leaving combat and militarized life behind and returning to civilian life. It entails dismantling and disbanding paramilitary and non-state fighting units, which are typically gathered in camps for a change in life orientation that includes professional and non-violent life counseling. Reintegration, on the other hand, entails reintegrating former fighters or militants into society through profitable training and empowerment aimed at achieving self-empowerment and economic independence as

well as the peaceful and civil responsibilities that former combatants should play in society. By providing support in the form of education, professional training, microcredit, skills development, and help to return to peaceful and sustainable livelihoods, reintegration helps to meet the unique needs of former combatants, veterans, and disabled combatants as well as their families and communities.

According to the study, demobilization (transformational training and counseling in various camps) and reintegration of the former militants by attending to their specific needs and those of noncombatants in the area are two more significant areas where the Amnesty program has helped to build peace in the Niger Delta. Approximately 15,434 were changed as part of the peacebuilding process to help former militants reintegrate into civilian life between June 2010 and May 2011. 6,067 exmilitants were reintegrated through formal education between 2013 and 2014; 2,500 went to universities; 13,000 took part in skill- building programs at domestic and international training facilities; 113 worked in welding fabrication and the maritime industry; and others in various domestic and international agencies. Niger Delta ex-militants and noncombatants who were beneficiaries of the Amnesty program's reintegration component received specialized and vocational training, as did the numerous international organizations that served as the scheme's human infrastructure building component, a proliferation of noncombatants and former soldiers in formal education (B.Sc., M.A., M.Sc., MBA, M. Engr., and L LM courses) Primarily postgraduate degree programs offered by international universities in various academic fields. The United States of America (USA), Sweden, Cyprus, Dubai, Malaysia, Belarus, and the United Kingdom (UK) are the training host nations, correspondingly. However, the majority of the Niger Delta recipients under the Amnesty

scheme were housed in Universities in the UK and Malaysia (Lanre and Shaibu, 2019).

Government Financial Contributions for Reintegration of Transformed Ex-militants.

There is general agreement that the Federal Government of Nigeria, in its endeavor to establish peace in the Niger Delta, has contributed billions of dollars to the Amnesty program through the annual budget from 2009 to 2018 in order to ensure that the DDR scheme results in enduring peace in the area. The program's budgetary contributions and allocations made it clear that the Federal Government was financially committed to peace building in the Niger Delta. In addition to the government's demonstrated financial commitment to the Amnesty program, data regarding finances shows that ex-militants protested in 2015 in response to grievances or concerns that the government intended to discontinue the monthly payment, as well as the low funding for the program. However, the Amnesty Office was able to pay all of the ex-militants' backlog of stipends through the end of 2016, thanks to the increase in funding in 2017. In addition to giving the former militants a monthly salary of between N65,000 to N66,000, the Amnesty program has continuously provided for reintegration activities (Premium Time, Wednesday, August 22, 2018) (Lanre and Shaibu, 2019).

Prospects and Challenges Facing the Implementation of the Amnesty Program in Nigeria

According to government reports, the country's oil production increased from 800,000 barrels per day (during the 2006-2008 periods) to 2.3 million barrels per day after the ceasefire brought about by the amnesty declaration. This is because the security situation in the oil region has improved. A daily increase of 1.5 million barrels translates into daily revenue of \$124.45 million for the national coffers.

Additionally, other businesses used the occasion to fix some of their damaged oil facilities. Undoubtedly, the amnesty program is anticipated to enhance the nation's currently poor level of human capital development. Nigeria is ranked 156th out of 187 countries and territories with a 2011 Human Development Index (HDI) score of 0.459, which includes the three fundamental components of human development: a long and healthy life, access to information, and a respectable level of living (UNDP 2011).

The "resource curse" argument, which holds that resourcerich economies like Nigeria, Congo, Angola, etc. are more vulnerable to poor management, underdevelopment, and violence, may be disproved if the amnesty program in Nigeria is carried out properly. With effective institutions and sound governance in place, the resource curse can be avoided, as demonstrated by the examples of the UK and Norway, two significant oil exporting nations. Despite the program's successes, elders in the Niger Delta region called for the dissolution of the Presidential Amnesty Committee after reports from the group established in January 2010 to examine the DDR's rehabilitation component showed certain shortcomings. Among these are the following: the overabundance of registered ex-militants; the ongoing detention of multiple militants; some training centers operating with subpar facilities and falling short of acceptable standards; and the fact that approximately 80% of the budget was allocated to paying consultants and contractors, with only 20% going toward the rehabilitation of the ex-militants (Obi & Rustad, 2011).

NwajiakuDahou (2010) commented on the shortcomings of the amnesty program, saying: "Among the many flaws of the Amnesty program are: Lack of a wider political settlement involving the larger Niger Delta population that has borne the costs of conflict, vast differences in compensation between

former militant commanders and foot soldiers, restricted access to rehabilitation training and allowances for those who turned in weapons after the deadline, inadequate training provision, limited employment opportunities, and the politically motivated staffing of organizations tasked with implementing and coordinating the amnesty program." Five new committees were established to address postamnesty programs and expedite development difficulties in the Niger Delta after the Federal Government abolished the Presidential Committee on Disarmament and Amnesty for Militants in the Niger Delta on December 2, 2009. These included the Environmental Remediation Committee, the Oil and Gas Assets Protection Committee, the Disarmament and Reintegration Committee, the Presidential Monitoring Committee on Amnesty, and the Infrastructural Committee. Poor execution of the amnesty package is one of its main problems (Olubayo & Olubisi, 2012).

The amnesty scheme was not carried out as suggested in the Niger Delta Technical Committee's report. The consultations took place at the highest levels of the federal government, with top government officials of Niger Delta origin and Niger Delta elites/elders negotiating with the militant commanders, instead of holding open talks or signing a formal peace agreement with the militants (Obi & Rustad, 2011). Since the militants on the ground feel deceived and ignored by the government, this topdown, non-inclusive strategy, implemented by militant leaders who are only interested in what is profitable to them or for their own personal advancement, poses a severe threat to the amnesty program. The failure of earlier unsuccessful development initiatives like the Niger Delta Development Board (NDDDB), Niger Delta Basin Development Authority (NDBDA), and Oil Mineral Producing Area Development Commission (OMPADEC) based on a topdown approach demonstrates

that the Nigerian government has not really learned anything from them.

Adopting a bottomup strategy that incorporates aspects of democracy, accountability, equity, and active public participation from all stakeholders—including grassroots individuals, militants, youth organizations, women's groups, and civil society—is necessary to achieve sustainable peace and development in the Niger Delta. Additionally, compared to the 26,358 militants who registered for the amnesty program, the overall number of weapons and ammo turned in by the militants— 1,798 rifles, 1,981 guns of various sorts, 70 RPGs, 159 pistols, one spear, and six cannons— is undoubtedly low. The numerous strikes that militants have taken out even after the disarmament exercise demonstrate how armed the region is. The region is extremely hazardous and vulnerable to a return to violence as long as there are a lot of weapons in circulation, hence the disarmament program needs to be strengthened (Olubayo & Olubisi, 2012)

Amnesty, Militia Insurgency and Violence in the Niger Delta?

There is ample evidence that, in spite of the Amnesty program's enormous achievements and contributions, violent attacks on multinational oil companies (MNOCs) continued to occur between October 2010 and 2016, which is essentially the post-amnesty period. There is ample proof that the Amnesty program was tangled with issues of violent attacks and revival associated with the Movement for the Emancipation of Niger Delta (MEND) in Bayelsa state, Delta state, and Abuja, the Nigerian capital. Even yet, it was noted that the program's largest beneficiaries were in Delta and Bayelsa States. The activities shown in Tables 1 as well as the reemergence of militant organizations under the MEND banner are proof that the

Amnesty program was unable to stop violence or establish a peace regime in the Niger Delta.

Table 1: Evidence of Militia resurgence and violent attacks 2010-2016

S\N	Date	Millitia Attack\Millitant Organisation	Outcome
1	10 th October 2010	Nigeria's 50th independence Celebration. Allegedly MEND	Detonation and blast of 2 car bombs killing 2 persons and wounding 36 others
2	October, 2010	Agip Pipeline in Bayelsa. MEND	Explosion
3	March 5, 2010	Post Amnesty Conference at Warri, Delta State. MEND	Car bombing near event. 1 person killed and 11 injure
4	November 8, 2010	Raid on Oil rig and kidnaping of seven foreign staff. MEND	Kidnaping of seven staff
5	November 15, 2010 .	Attack on Exxon Mobil Oil platform. MEND	Kidnaping of seven Nigerian workers.
6	February 4, 2012	Attack/ bombing of Agip trunk pipeline. Allegedly MEND	Bombing of Agip trunk Pipeline
7	March 20, 2013	Attack on Oil Pipeline. Allegedly MEND	Bombing and Destruction
8	April 13, 2013 .	Attack on Shell oil well in Nembe L.G.A, Bayelsa State. Allegedly MEND	Bombing and destruction
9	July 4, 2013	Attack on oil pipeline. Allegedly Militants affiliated to MEND	Bombing and Destruction
10	December 20,2013	Attack on Oil Plant	Kidnaping of 4 South Korean
11	January 15, 2014.	Agip facility in Nembe- Brassanbiri, Bayelsa. Allegedly New group of MEND trainee fighters	Kidnaping of vessel staff. Hostages released (Ransom allegedly paid)
12	October 14, 2016	Attacks on pipeline Niger Delta Avenger (NDA)	Bombing and Destruction
13	October 25, 2016	Attacks on pipeline Niger Delta Avenger (NDA)	Bombing and Destruction
14	November 16, 2016	Attacks on pipeline Niger Delta Avenger (NDA)	Bombing and Destruction

Source: Authors compilation 2024

There is ample evidence that, in spite of the Amnesty program's enormous achievements and contributions, violent attacks on Multinational Oil Companies (MNOCs) continued to occur between October 2010 and 2016, which is essentially the post amnesty period. There is ample proof that the Amnesty

program was entangled with issues of violent attacks and revival associated with the Movement for the Emancipation of Niger Delta (MEND) in Bayelsa state, Delta state, and Abuja, the Nigerian capital. Even yet, it was noted that the program's largest beneficiaries were in Delta and Bayelsa states.

The activities shown in Tables 1 as well as the reunification of militant organizations under the MEND umbrella reveal that the Amnesty program was unable to stop violence or establish a peace regime in the Niger Delta. Even worse, Ikelegbe and Umukoro (2016) found that in addition to MEND's violent operations, there have been occasional outbreaks of new and resurgent militia activities, including those of John Togo in the western Delta in 2011, Keiti Sese's camp at Foropa in Bayelsa state in 2010, Coastal Revolutionary Forces, and the Idiot Family in Bayelsa state in 2014. Additionally, the same MEND was found to have been involved in various criminal operations, including piracy, oil theft, and sailor kidnapping, between 2011 and 2014—a time that could be described as a new face of militancy (Ejovi & Ebie, 2013). Despite a drop following the 2009 Amnesty, maritime and waterway piracy has sharply increased since 2011. Between December 2012 and March 2013, attacks occurred on 39 vessels and coastal craft in Nigerian waters, resulting in approximately 7 fatalities and 33 hostages taken.

In 2013, there were 29 piracy incidents in Nigerian waters, including two hijackings, the boarding of 11 ships, attacks on 13 vessels, and attempted attacks on three more. The Niger Delta Avengers (NDAs) also carried violent attacks in 2016 by bombing and demolishing Chevron installations and oil pipelines in Warri (Ejovi & Ebie, 2013).

Theoretical Frame Work

Conflict transformation theory

In the realm of peace building, conflict transformation theory is a relatively recent development. Nonetheless, a lot of the well-known ideas of conflict management and conflict resolution are incorporated into the theory's foundation. Conflict transformation is viewed as a reconceptualization of the field to make it more relevant to modern conflict circumstances, rather than a completely new

method, due to its ideological connection to these (Miall, 2004). The nature of modern conflicts has changed, making this rethinking essential. For instance, the majority of modern wars takes place inside national borders and are exacerbated by structural factors such as unequal power dynamics and the allocation and appropriation of resources.

Additionally, many modern confrontations are drawn out and characterized by intermittent intervals of violence and quiet, as noted by Smith (2004). Conflict in this situation arises in waves, rising sharply until some compromise is made, then sharply declining (nearly to the point where conflict is no longer evident), and then rising once again. In the end, protracted conflicts damage society and cause complex emergencies in addition to upsetting social stability. Three separate theoretical processes are embodied in the conflict transformation approach: conflict transformation (Lederach, 1995), conflict management (Bloomfield & Reilly, 1998), and conflict resolution (Deutsch & Coleman, 2000).

"Positive and constructive handling of difference and divergence" is how Bloomfield and Reilly (1998) defined conflict management. Instead of promoting strategies for eliminating conflict,... tackles the more practical issue of conflict management: how to resolve it in a positive manner, how to unite opposing sides in a collaborative process, and how to create a workable, realistic, cooperative system for the constructive management of differences. Violent conflicts, according to theorists and practitioners in this tradition, arise from disagreements over values and interests ingrained in the social structure. These distinctions cannot be eliminated since they are ingrained in both macro and micro social structures, including historical experiences, institutional ties, resource appropriation and distribution, current power coalitions, racism, ethnicity, tribalism, egos, and so forth. The best course

of action for society is to control the dispute and keep it from getting worse to the point where it might interfere with daily operations. .

As noted by Miall (2004), there are times when a historic compromise may be reached that leads to the temporary suspension or renunciation of violence in order to promote peace. Therefore, achieving political settlements via the use of the resources of a few important actors who are strong enough to put pressure on the disputing parties to reach a settlement or steer the inevitable conflict in the right directions is the aim of conflict management. In contrast to conflict management theory, conflict resolution theory emphasizes the role of knowledgeable but helpless outsiders who work outside of the political system to help disputing parties comprehend, investigate, evaluate, challenge, reframe, and synthesize their interests and perspectives.

Conflict management theorists' systemic approach is criticized by theorists in this lineage as being ineffective and unable to resolve disputes because it fails to take into account the depths of identity and community from which conflicts originate. They contend that individuals engaged in identity based disputes are frequently unwilling to engage in compromise negotiations; rather, it is necessary to investigate the conflict's origins in order to develop innovative solutions that the disputing parties might have overlooked because of their deeply held beliefs.

Accordingly, conflict resolution basically entails assisting the disputing parties in shifting from harmful zero-sum interactions to constructive ones (Deutsch & Coleman, 2000). This method has been critiqued by Lederach (2003) due to its "definitiveness" or "finality" and the way it uses terminology that "implies finding a solution to a problem." Consequently, it obsesses about "ending something that is not desired" rather than creating "something that is desired." The goal

of conflict transformation is to create the kind of peace that all parties involved want. Therefore, conflict transformation goes beyond conflict management and conflict resolution theories that only reframe positions and identify positive outcomes. It also addresses the creation of a new system, procedure, or method that integrates and uses the benefits of ending a conflict to promote peace.

It explores the nature of the conflicting parties, including their operational structures, historical experiences, and relationships that extend conflicts beyond specific sites. Lederach (2003) defines it as envisioning and responding to "the ebb and flow of social conflict as life giving opportunities for creating constructive change processes that reduce violence, increase justice in direct interaction and social structures, and respond to real life problems in human relationships." It is a "process of engaging with and transforming the relationships, interests, discourses, and, if necessary, the very constitution of society that supports the continuation of violent conflict," according to Miall (2004). Conflicts may be changed from their virulent, destructive form to circumstances that are acceptable to all parties involved by affecting and influencing these domains (i.e., both the epicenter of conflict, such as the web of relational patterns, including the history of lived episodes from which new episodes of conflict emerge, and the actual fighting).

Theoretically, this NDAP analysis might be examined under the heading of conflict transformation. The theory provides a framework for talking about the Niger Delta conflict's cause or causes as well as the best ways to alter the intricate dynamics of the conflict in the delta. Using this method, it is common to see the NDAP as being caught in the middle of a significant conceptual divide: the need for order in light of current realities, particularly declining oil revenue and the

potential impact of the delta violence on Nigeria's economic and political stability; and a historical legacy of ecological abuse combined with structural violence that has sparked massive rage, protests, and violence. The NDAP must foresee and address the multitude of factors that led to the conflict in the first place, including the coercive structural cracks, if it is to bring about enduring peace. Conflict transformation, as a result of peace building, denotes a qualitative shift from a state of violence to one of peace with little to no chance of reversal. The conflict itself, certain facets of the socio historical and political system in which it takes place, the individuals engaged, and the connections between adversaries are all transformed by this change system (Notter and Diamond, 1996). Ebiede (2017), asserts that peace is ultimately the result of transformation at the several levels. Thus, it is clear that the Niger Delta is threatened by the current oppressive sociopolitical structures, inequality, lack of legal economic access, pollution, extreme poverty, illegal oil bunkering, and class and ethnic differences in human development. To address these issues, more serious peace building efforts are needed to transform the infrastructures that are required to achieve a relatively successful outcome.

Conflict transformation, a byproduct of peace building, denotes a qualitative shift from a state of violence to one of peace with little to no chance of reversal. The conflict itself, certain elements of the socio historical and political system in which it takes place, the individuals involved in the conflict, and the relationships between adversaries are all transformed by this change system (Notter and Diamond, 1996). Ebiede (2017), asserts that peace is ultimately the result of transformation at these several levels. Thus, it is clear that the Niger Delta is threatened by the current oppressive sociopolitical structures, inequality, lack of legal economic access,

pollution, grinding poverty, illegal oil bunkering, and class and ethnic differences in human development. To address these issues, more serious peace building efforts are needed to transform the infrastructures required to establish a comparatively successful peace system.

Discussion of Findings

The amnesty was exclusive:

Without any formal negotiation or mediation process that could have explicitly stated the other essential elements of the peace process that the amnesty deal was backing, the federal government forced the Niger Delta amnesty arrangement on the people of the region. The amnesty agreement was founded on the idea that the Federal Government, which was denied unrestricted access to the Niger Delta's oil resources, was the target of any crimes the militants in the region may have committed. This is because the Nigerian amnesty agreement did not adhere to the best international standards for empowering victims, particularly the communities in the Niger Delta that have been devastated by oil exploration and by the numerous military operations that have occurred there. The victims (and not just the Federal Government in this instance) were given the opportunity to come forward and describe the crimes committed against them in other parts of the world. These were included in the amnesty.

The Nigerian Government amnesty only targets militants and disregards the victims of hostage taking and militancy in the area. Presumably because they lacked the means of violence, mothers and children who had lost fathers, sons, and houses due to the fighting were left out of the amnesty package. The militants' arms surrender and renunciation of violence did not relieve the discontent of the entire people, given the grassroots' exclusion from the sustainability of the existing calm in the region. The Niger Delta deprivation did not affect only militants. The focus on only

former militants and the amnesty scheme could exacerbate the resentment of those who refrained from using force against the Nigerian government. This leads us to the conclusion that the frustrations that fuel insurgency were not addressed; violence may erupt or recur in the area. Therefore, resolving these annoyances is necessary for the region to achieve peace. The government's empowerment program might have been applied to all local residents in the area; if not, it might give the false impression that crime is profitable to those who have been left out and could encourage others to pick up arms in order to get attention.

Only militants were eligible for the government's empowerment program, which included training and employment prospects. Addressing the militants alone while ignoring the region's appalling poverty, underdevelopment, and predicament will not resolve the issue or accomplish the amnesty's goal. The appalling state of affairs, the region's poverty and underdevelopment, and corporate and governmental poor governance all contributed to the militancy and subsequent criminality in the area. These factors will undoubtedly mark the end of the amnesty program. Only a small portion of the Niger Delta's population— 31,224,577 million according to the 2006 population estimate— are militants currently being reintegrated under the program (Nigerian News Census, 2006). The Niger Delta population has to be lifted out of the "poverty trap," which is characterized by a declining environment, bad health, poor education, inadequate infrastructure, and a low level of living.

Conclusion

The goal of the amnesty for Militants in the Niger Delta was to bring about a lasting peace and foster an atmosphere that would hasten sustainable development. The study evaluated and discussed the amnesty contributions to

peace building in the Niger Delta, specifically how militants were disarmed and registered throughout the region; how many former militants were demobilized and reintegrated through formal education, vocational training, and specialized training; and the significant financial commitment made by the Federal Government of Nigeria through various budgetary contributions to the Amnesty program since 2009 to the present. . Nevertheless, evidence from 2010 to 2016 demonstrated that the Amnesty program did not prevent insurgency and violent attacks, including piracy, oil theft, and kidnapping in the Niger Delta, despite the funding allocated to it.

Fascinatingly, the reasons behind this resurgent threat were found and categorized into sociopolitical, socioeconomic, and environmental issues. This classification largely showed that the DDR peace building efforts lacked the framework necessary to deal with the underlying causes of the issues. Therefore, the Niger Delta amnesty program undoubtedly represents a temporary crisis management win, but the Niger Delta issue has not yet been resolved. The initiative disregarded fundamental principles of global best practices for resolving disputes and promoting peace. Although it was promoted as a "comprehensive" DDR exercise, reintegration was hardly mentioned. No provisions were made for institutional reform, dialogue, mediation, or reconciliation. Unresolved local level conflicts within and between communities continued to be open wounds and a haven for violent attacks, revival, and radicalization.

Recommendation

Regardless of their ethnic background or affiliation, all social segments should have equal access to the Amnesty program in order to build a peace system. All levels of government— local, state, and federal— should fulfill their duties to the populace in

order to allay the Niger Deltas' demands for unrestricted rights.

Insecurity and the spread of weapons should be addressed appropriately nationwide by the federal government and its National Security Agencies (NSAs). If not, peace building would continue to be difficult. To achieve the desired stability in the Niger Delta, the government and all other entities involved in the implementation should adhere to the provisions of the amnesty deal with ex-militants.

The fundamental principles of international good practice and diplomatic tools for conflict resolution, such as the availability of mediation, dialogue, reconciliation, or institutional reform to handle local level

conflicts within and between communities, should be acknowledged and utilized by amnesty programs.

Peace building efforts in the Niger Delta should involve sufficient cooperation between the government and regional players, such as militant commanders, regional politicians, and traditional authorities. Before acting in a way that may breed mistrust, the federal government should discuss matters.

The government should provide microcredits to the trained Niger Deltas so they can practice the skills they have learned. Government representatives and contractors must demonstrate transparency and accountability as duty givers or holders.

Reference

- Akinwale, A. A. (2010). Amnesty and human capital development agenda for the Niger Delta. *Journal of African Studies and Development*, 2(8), 201-207.
- Aiao, O. A. (2007) *Natural Resources and Conflict in Africa: The Tragedy of Endowment* Rochester Studies in History and the African Diaspora. New York: University of Rochester Press.
- Amaize, E. (2011). Amnesty: Nigeria, EU to partner on Niger Delta. *Vanguard*. Retrieved August 13, 2011, from <http://www.vanguardngr.com/2011/08/amnesty-nigeria-eu-to-partner-on-niger-delta/>
- Egwu, C. E. (2013). The Amnesty Question in Post Conflict Niger Delta and Peace-Building. *Arabian Journal of Business and Management Review (OMAN Chapter)* 2,(10)1-12. available at: www.google.com (accessed July 20, 2018)
- Ejovi A & Ebie .C. S.(2013)*Niger Delta: A Critical Appraisal of the Amnesty Programme and Social Political Development in Nigeria. Research on Humanities and Social Sciences* 3,(.22).
- European Commission. (2012). EU helps Nigeria to consolidate peace in the Niger delta and ensure better governance and improved service delivery' EC12-013EN. Retrieved February 3, 2012, from http://ec.europa.eu/commission_2010-2014/piebalgs/headlines/news/2012/02/20120203_en.htm
- Hurso K A.(2018)*The Politics Of Natural Resources Governance In Africa: Environment, Conflict And Security Nexus In Nigeria's Niger Delta Region.*
- Ibaba, I. S. (2011). Amnesty and Peace-Building in the Niger Delta: Addressing the Frustration-Aggression Trap. *Africana: The Niger Delta (Special Issue)*, 5(1), 238-271.

- Igbini M.D(2020).Leadership Failure and Acute Youth Unemployment in Nigeria" in the RUDN
Journal of Public Administration, (7) 3.
- Ikelegbe, A. (2011). Popular and criminal violence as instruments of struggle in the Niger Delta region. In Obi, C. & Rustad, S. A. (Eds.), *Oil and Insurgency in the Niger Delta: Managing the complex politics of petro-violence*. London/New York: Zed Books.
- International Crisis Group. (2009). *Seizing the Moment in the Niger Delta*. Africa Briefing No. 60.
- Iyabobola O. A (2015)*Nigeria's Amnesty Program: The Role of Empowerment in Achieving Peace and Development in Post-Conflict Niger Delta* e SAGE and Open Access page (<http://www.uk.sagepub.com/aboutus/openaccess.htm>).
- Kingsley K Kuku (2012) *Remaking the Niger Delta: Challenges and Opportunities*. Lagos: Mandingo Publishing.
- Lanre Olu-A. and Shaibu, M. T(2019). *Amnesty and Peace-Building in Nigeria's Niger Delta: Problems and Prospects*; International Journal of Research and Innovation in Social Science (IJRISS) | III(VII), 528 www.rsisinternational.org.
- Nigerian National Petroleum Company (2000) *Nigeria: Great Expectations, Abundant Opportunities*. CD-ROM copy;
- Nigerian News census. (2006). Retrieved from <http://www.nigeriannews.com/census/census2006.htm>
- Nwajiaku-Dahou, K. (2009) *The Politics of Amnesty in the Niger Delta: Challenges Ahead*. Paris: IFRI.
- Nwajiaku-Dahou, K. (2010). *The Politics of Amnesty in the Delta Niger Challenges Ahead*. Paris and Brussels: The Institut français des relations internationales (Ifri).
- Obasi, N. (2009). *Yar'Adua Should Draw Up Roadmap to Delta Peace*. International Crisis Group, Retrieved November 30, 2009, from <http://www.crisisgroup.org/en/regions/africa/west-africa/nigeria/op-eds/obasi-yar-adua-should-draw-up-roadmap-to-delta-peace.aspx> bid
- Obi, C and Rustad, S. A. (2011) Introduction: *Petro-violence in the Niger Delta – The Complex Politics of an Insurgency*. In Obi, Cyril and Rustad, Siri Aas (eds.) *Oil and Insurgency in the Niger Delta: Managing the Complex Politics of Petro-violence*. London: Zed books, p. 7. 4
- Obi, C. (2006) *Youth and Generational Struggle for Resource Control in the Niger Delta: Prospects for the Nation-state Project in Nigeria*. Dakar: CODESRIA Monograph Series, pp. 3–6
- Obi, C. (2010) *The Rise of China and India in Africa: Challenges, Opportunities and Critical Interventions*. Nordic Africa Institute, Uppsala, Sweden: Zed Books
- Obi, C. and Rustad, S. A. (2011) Conclusion: *Amnesty and Post-amnesty Peace: Is the Window of Opportunity Closing for the Niger Delta?* In Obi, Cyril and

- Rustad, Siri Aas (eds.), op. cit., p. 205.
- Obi, C., & Rustad, S. A. (2011). Conclusion: amnesty and post-amnesty peace, is the window of opportunity closing for the Niger Delta? In Obi, C. & Rustad, S. A. (Eds.), *Oil and Insurgency in the Niger Delta: Managing the complex politics of petro-violence*. London/New York: Zed Books.
- Ogannah, A. (2009) 'Niger Delta Amnesty riot: Many Raped, Two Dead, UNIPORT Shut', Available at: Accessed on: 7 September 2011.
- Ogege, S. O. (2011). Amnesty Initiative and the Dilemma of Sustainable Development in the Niger Delta Region of Nigeria. *Journal of Sustainable Development*, 4(4), 249-258.
- Okoh, R. (2005) Conflict Management in the Niger Delta of Nigeria: A Participatory Approach. *African Journal of Conflict Resolution*, 5 (1), pp. 91–110.
- Olubayo, O. & Olubisi, F. O(2012). In Search of Sustainable Peace in the Niger Delta through the Amnesty Programme *Journal of Sustainable Development; Published by Canadian Center of Science and Education* 48 Nigeria: 5,(7)
- Oluwaniyi, O. (2007) Oil and Conflict in the Niger Delta Region: The Nigerian State Responses and Security Challenges. Presented at the Nigerian Political Science Association (NPSA) International Conference on the Nigerian State, the Oil Industry and Niger Delta.
- Oluwaniyi, O. (2010) Oil and youth Militancy in Nigeria's Niger Delta Region. *Journal of African and Asian Studies*, 45 (3), pp. 309–325.
- Oluwatoyin O. O.(2018)post-amnesty programme In the nIger delta: challenges and prospects
- Peel, M. (2011) A Swamp Full of Dollars: Pipelines and Paramilitaries at Nigeria's Oil Frontier. London-New York: I.B Tauris
- Sylvester, R. (2009) Nigeria: Amnesty – 8,299 Ex-militants Registered. *The Sun*, 9 October. Ajunwa, C. (2010) Government Approves 6 166 Ex-militants for Amnesty. *This Day*, 28 November, p. 17. 13 To date, the promise of rent payment has not been fulfilled.
- Technical Committee on the Niger Delta (2008) 'Report of the Technical Committee on the Niger Delta', Available at: Accessed on: 8 September 2011. 11 Abiodun, A., Adekunle, A. and
- United Nations Development Programme (2006) *Niger Delta Human Development Report*. Abuja: UNDP;



Financial Regulation, Control and Accountability in the Nigeria's Public Sector (A Case Study of Delta State)

Ewiwile Stephen PhD

Delta State University, Abraka
Department of Accounting,
Faculty of Management Sciences.
email: ewiwilesteve@gmail.com
Phone number: 08038286034

Publication Date: 2025/06/30

Abstract

The research work examined financial regulation, controls and answerability to the Nigerians; taking a case study of Delta state. Data were source primarily through Questionnaires drawn from staff of public ministries who has Accounting back ground with sampling and Judgmental techniques from 350 respondents. Chi-Square and Chrombach Alpha were used to test the hypotized parameters. Findings revealed significant relationship between accounting records and financial regulations but insignificant relationship of accountability. Base on these findings, the study recommends among others that the government should enshrine in the constitution a mandatory and annual rendering of accounts to the citizens by the executive and political office holders handling government resources and funds.

Keywords: *Financial Regulation, Financial Controls, Accountability, Public Ministries, Accounting Records, Nigerians, Delta State.*

Introduction

The government of any nation is vex with the responsibilities of providing essential goods, services, security and welfare for the citizenry with the objective of having a peaceful and a stabilized society. The various sources of government revenue meant to meet up with the demands of the people ought to be prudently managed in order for the government to meet the set goals. But more often than none, her difficulties in discharging her responsibilities effectively and efficiently can be attributed to the lackadaisical attitudes of handling government financial resources, especially the public and political office holders. Government institutions unlike the private institutions are characterized with recklessness in spending and management of

public fund and also are careless in giving its stewardship functions to the citizenry. Shafiu and Modid (2020) in the same vein opined that Nigeria's public services are characterized by reckless spending and misappropriation of funds. The scenario has encouraged embezzlement in all aspect of Nigeria's government. The word embezzlement simply put is to make away with, siphon off funds or inventories placed in one's custody. Similarly, Ajibolade and Oboh (2017) asserted that Nigeria has failed to fulfill her obligations at the grassroots due to excessive external control from the states which invariably has lead to massive embezzlements and reckless spending and at the same time has created restricted access for other levels of government development.

The government of Nigeria has instituted some regulatory agencies like the Independent Corrupt Practice and other related Offences Commission (ICPC), Economics and Financial Crime Commission (EFCC), the due process and others, established to check mate the fraudulence, misuse of Financial and other assets in the country. Duke and Agbaji (2017) reiterating said the agencies saddled with the tasks of collecting and remitting revenue to the government seldom discharge their responsibilities as expected and are in one way or the other involved in the huge public sector accounting fraud. Consequently, the inability of the government in meeting up with the demands of the citizenry, the improper managing of its finance and accountability has in no small way doubt whether the various regulatory institutions are performing their functions or whether the various book-keepings are dully followed and complied with. More so whether various persons in authority at government institutions, required giving account of their stewardship to the citizenry are doing so.

This research work attempts to find out the reasons for the anomalies which are inhibiting the government from rendering the services effectively and efficiently in the Nigeria's public sector taking a case study of Delta State.

Research Questions

1. Are there appropriate Accounting records and control in Nigeria's public sectors?
2. To what extent does the regulatory agents' in Nigeria implementing regulatory control of finances in Nigeria's public sectors?
3. Do the Nigeria's public Office holders give account of their stewardship annually to the citizenry?

Hypotheses

1. Significant accounting records and control in Nigeria's public sector does not exist.

2. Significant regulatory financial control does not exist in Nigeria's public sector.
3. Stewardship accounting does not exist in Nigeria's public sector.

Review of Related Literature

Akinwum and Akinola (2019) examined the usefulness of financial control and accountability in Nigeria's public sector with a case study of Owo in Ondo State. Questionnaires were used for the primary data while data for the secondary data were collected from the CBN statistical bulletin on federally generated revenue and expenditure incurred. Chi-square and simple linear regression were used to analyze the data. It was discovered that a positive relationship existed between revenue generated and expenditure incurred. It was therefore recommended that financial control should be strengthened to improve accountability in Nigeria's public sector.

Olaoye , Ogbebor and Elelu (2021) investigated how financial direction affect accountability practice of public sector accounting in Nigeria. Data were collected by questionnaires with a population of 2, 125 for Lagos of Ogun state working in account & finance department and a cross-sectional research design was employed using SPSS 200 test statistics for the data analyses. Finding revealed that financial direction affects accountability in Nigeria Public sector. Based on this it was recommended to make improvement on the existing physical control assets for ensuring effective financial control. Onuorah and Appah (2012) examined the management of public fund in Nigeria. Data were collected from CBN statistical bulletin 1961-2008 on federal and state government revenue and expenditure account. It was discovered that accountability is poor in Nigeria. The study recommends that improvement of public sector accounting and auditing standards

Shruti and Einar (2020) investigate the impact of the European banking authority's guidelines on internal governance through sure dish financial regulation on the bank's risk organization along the three lines of defense model of internal control through an analysis of 41 interviews with more than 2,100 pages of internal and external documents. The findings was that whilst intra and inter-organizational accountability mechanisms have strengthened under the changed organizational structure through the implementation of financial regulation, challenges to effective transparency remain and may have ambiguous consequences for 120th organizational and regulatory aims. Samuel and Olaoye (2021) examined the effects of financial control practices on accountability in Nigeria's public sector using cross-sectional survey research design and questionnaires method. Data were analyzed with the aid of SPSS 20.0 version software. The study showed that financial control has a significant influence on accountability as well as a significant influence on responsibility of Nigeria's public sector. It was recommended that existing physical control assets should be strengthened in order to enhance effective financial control and improve on accountability. Okoro E.O (2021) evaluates the financial control and accountability in public sector organization in Abia State ministry of finance. The Data were analyzed with description statistics such as frequency, percentage and correlation coefficient. Findings revealed an insignificant relationship between internally generated revenue and book-keeping records. Based on these findings, the study recommended annual Audit reports to checkmate resource utilization in the Ministries.

Conceptual review

The concept of Financial Regulation

Solabomi and Collins (2017) defined Financial Regulation as laws that govern banks, investment firms, and insurance companies and protect them from financial risk and fraud which must be balance within operational efficiency

Trisha (2020) defined financial control as procedures, policies, and means taking by an Enterprise in monitoring, direction, allocation, and controls the usage of its financial resources.

Accountability

Kenton (2021) said accountability means a willingness to be transparent and allowing others to observe and evaluate one's performance. Similarly, Demsetz (1972) and which was updated by Akinwunmi (2019) asserted that it is an expression of duties carried by some other person as being effective and efficiently done

Theoretical review

Agency theory

Agency theory was propounded by Alchian and Demsetz in 1972; reviewed in 1976 by Jensen and Mucking and was updated by Carol M.K in 2021. It explain that the principals provide the capitals for the business while the agents are involve in the day to day running of the business but the risk is purely bore by the principals

Public Interest Theory

Public Interest theory was propounded by Stephen Balley in 1962 updated in 2018. It postulates that government seeks the protection and benefits of the citizenry at large in allocation of resources and welfares

Stewardship theory

Stewardship theory was propounded by Demselz (1972) and updated by Carol in (2021). It postulated that the responsibility of caring for something for the benefit of another

person or group of people is the concern of responsible accounting. The person or group of persons rendering service or giving a task to perform must carefully take up the responsibility seriously knowing that he will be called upon at any time in point to renders account.

This study however, is anchor on the stewardship theory as it bothers on taking responsibility for services rendered and to give account of one's stewardship to others

and without compelling; reports conscientiously to the group, association or people he is representing at a specified time period.

Methodology

Data collection method

We used primary data which was sought via Questionnaires and employed the survey design method

Table 3.0: Question one: Appropriate book-keeping and controls do not exist in Nigeria's Public sectors.

S/N	Interviewees	Agreed	Disagreed	Undecided	Total
1	Executive Officials	4	32	2	38
2	Professional Accountants	2	37	1	40
3	Book Keepers(Clarks)	4	12	6	22
Total		10	81	9	100

Table 3.1: Question Two: Proper regulatory financial control is not applicable in ministries.

S/N	Interviewees	Agreed	Disagreed	Undecided	Total
1	Executive Officials	4	32	2	38
2	Professional Accountants	1	40	1	42
3	Book Keepers(Clarks)	10	7	3	20
Total		15	79	6	100

Table 3.3: Question Three: The Nigeria's officials seldom give annual account of their stewardship.

S/N	Interviewees	Agreed	Disagreed	Undecided	Total
1	Executive Officials	5	25	2	32
2	Professional Accountants	45	2	1	43
3	Book Keepers(Clarks)	26		3	25
Total		10	81	9	100

Test of Hypothesis

The cross tabulation Chi-Square was employed to test the hypothesis. However, the

Chrombach Alpha was used in testing the variables. The result of the Chrombach Alpha test is show on table:

Reliability Test:

Table 3.4

Reliability Statistics

Cronbach's Alpha	N of Items
.729	3

Source: The Researcher using SPSS 23

The Chronbach Alpha test result is quite high with a 72.9% value. It therefore connotes that there is an internal consistency between the

variables derived via the questionnaire. The variables are therefore reliable for testing the hypotheses.

Test of Hypothesis One:

H0₁: Significant accounting records and control in Nigeria’s public sector does not exist.

Table 3.5: Appropriate book-keeping and controls do not exist in Nigeria’s Public sectors * Interviewees Crosstabulation

			Interviewees			Total
			Book Keepers	Professional Accountants	Exec Officials	
Appropriate accounting records and controls do not exist in Nigeria’s Public sectors	Count		6	0	2	8
	Undecided	Expected	1.6	3.4	3.0	8.0
	Count		12	40	32	84
	DISAGREE	Expected	16.8	35.3	31.9	84.0
	Count		2	2	4	8
	AGREE	Expected	1.6	3.4	3.0	8.0
	Count		20	42	38	100
	Total	Expected	20.0	42.0	38.0	100.0
	Count					

Source: The Researcher Using SPSS 23

Table 3.6: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.773 ^a	4	.001
Likelihood Ratio	17.329	4	.002
Linear-by-Linear Association	4.068	1	.044
N of Valid Cases	100		

Source: The Researcher Using SPSS 23

The result of the chi-square showed a P-value of 0.001 and this is lower than 5% . Also majority of the respondents disagree with the statement “Appropriate accounting records and controls do not exist in Nigeria’s Public

sectors” therefore we reject the null hypothesis for the alternative which states that there is significant accounting records and control in Nigeria’s public sector.

Test of Hypothesis Two

H₀ Regulatory financial control does not exist in Nigeria’s public sector.

Table 3.7: There is no proper regulatory control of account and Finances in the Public sector. * Interviewees Crosstabulation

		Interviewees			Total
		Book Keepers	Professional Accountants	Exec Officials	
There is no proper regulatory control of account and Finances in the Public sector.	Count	3	1	2	6
	Undecided Expected	1.2	2.5	2.3	6.0
	Count				
	DISAGREE Count	7	40	32	79
	DISAGREE Expected	15.8	33.2	30.0	79.0
	Count				
	AGREE Count	10	1	4	15
	AGREE Expected	3.0	6.3	5.7	15.0
	Count				
	Total	Count	20	42	38	100
	Expected	20.0	42.0	38.0	100.0
	Count				

Source: The researcher’s Computation using SPSS 23

Table 3.8: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	31.384 ^a	4	.000
Likelihood Ratio	28.335	4	.000
Linear-by-Linear Association	3.924	1	.048
N of Valid Cases	100		

Source: The researcher’s Computation using SPSS 23

The Chi-square result of 3.8 reveals a P-value of 0.000. Also, the cross tabulation result on table 3.7 confirmed their disagreement to the statement “That improper regulatory control of account and Finances existed in the

ministries”. Therefore the null hypothesis is rejected for the alternative which states that “There is significant regulatory financial control in Nigeria’s public sector.”

Test of Hypothesis Three

H0₃: Stewardship accounting does not exist in Nigeria’s public sector.

Table 3.9: The Nigeria’s ministries officials seldom give annual account of their stewardship to the citizens * Interviewees Cross tabulation

			Interviewees			Total
			Book Keepers	Professional Accountants	Exec Officials	
The Nigeria’s Public Office holders seldom give annual account of their stewardship to the citizens	Count		3	1	6	10
	Undecided	Expected	2.0	4.2	3.8	10.0
	Count		0	2	27	29
	DISAGREE	Expected	5.8	12.2	11.0	29.0
	Count		17	39	5	61
	AGREE	Expected	12.2	25.6	23.2	61.0
	Count		20	42	38	100
	Total	Expected	20.0	42.0	38.0	100.0
	Count					

Source: The researcher’s Computation using SPSS 23

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	64.827 ^a	4	.000
Likelihood Ratio	74.924	4	.000
Linear-by-Linear Association	23.495	1	.000
N of Valid Cases	100		

Source: The researcher’s Computation using SPSS 23

The Chi-Square test revealed a significant difference between the respondents with a P-value of 0.000 however this difference is tilted towards the acceptance of the statement “The Nigeria’s ministries officials seldom give annual account of their stewardship to the citizens”. This is shown on the cross tabulation table. Therefore the alternate hypothesis is rejected for the null; in this case which states that “There is no significant

stewardship of accounting in Nigeria’s public sector”

The Summarized Findings

Firstly, the chi-square test result showed a P-value of 0.001 and this is lower than 5% significant level which led to the acceptance of the alternative hypothesis which states that there exist a significant accounting records and control in Nigeria’s public sector.

Secondly, the Chi-square result of 3.8 reveals a P-value of 0.000 with the cross tabulation result of 3.7, confirming the respondent's disagreement; which led to the acceptance of the alternative which states that significant regulatory financial direction existed in Nigeria's public sector.

Thirdly, the Chrombach Alpha test and the Chi-Square result revealed a significant difference between the respondents with a P-value of 0.000 which led to the rejection of the alternate hypothesis that significant stewardship of accounting existed in Nigeria's public sector

Conclusion

In spite of various accounting records and regulatory control processes instituted in all Nigeria's public sectors to regulate and patterns ways of doing Businesses and giving of accounts, the citizenry are denied proper

Reference

Ajibolade S.O & Oboh C.S (2017) A critical examination of government budgeting and public funds management in Nigeria. *International journal of public leadership* 13(4) 218-242.

Akinwumi A (2019). Financial control and accountability in the public sector in Nigeria. *European Journal of accounting, auditing and finance research.* 7(7)AP 89-98.

Carol (2021) Meaning of agency theory. Retrieved online at theory @ <https://corporatefinanceinstitute.com/resources/knowledge/agency-theory>.

Demsels (1972) Definition of accountability. CLPE Researches paper no 1 (7). Retrieved online <https://paperSSn.com/s013/paper> CFM.

Duke Q.O & Agbaya D D (2017). The pursuit of good governance and the anti-financial corruption in Nigeria: A study of the economic and financial crime commission (EFCC) (2003-2016). *Asian research journal of art & social sciences* 1-16.

accountability of government activities because the government officials especially the politicians disregard the prudential stewardship function of accountability for their selfish interest to embezzle and misappropriate funds melt for public functionaries.

Recommendation

Internal control measures should be strengthening in order to control the inflow and outflow of funds in ministries.

The various regulatory agencies in Nigeria should work in harmony to checkmate fraud and misappropriation of funds.

The government should enshrine in the constitution a mandatory and annual rendering of accounts to the citizens by the executive and politicians handling government resources and funds

John J (2018) Effects of an internal control of financial accountability in the Nigeria public sector. *Journal of social and management sciences.*2(4) ISSN23003476-2510.

Kenton W (2021) .what is accountability? Corporate finance and accounting . retrieved @ <http://www.investopedia.com/terms/accountability.Asp>.

Olaoye S.A, Ogbemor P.L, Elelu F.S (2021). Financial control practices and accountability in the public sector in Nigeria. *Journal of Economics, Finance and management studies.*4(7) ISSN 2644-0504 PP 941-953.

Onuorah A.C. & Appahb E (2012). Accountability and public sector Financial management in Nigeria. *Arabian journal of business and Management review* 1 (6).

Okoro E.O (2021) Financial control and accountability in public sector

www.deljoms.com.ng

organization in Nigeria (a study of ministry of finance Umuahia) a dissertation submitted to the department of agriculture Umuahia. Retrieved online at theory @ [https://repository/mouau.edu.ng/work/view/financial control and accountability in public sector organization in Nigeria](https://repository/mouau.edu.ng/work/view/financial_control_and_accountability_in_public_sector_organization_in_Nigeria).

Shuruti K & Einar I (2020) Transparency and accountability influence of regulation on risk control: the case of a Swedish bank. *Journal of management and governance* PP 25 : 475-508. Retirement <https://doi.org/10.1007/s10997-02009550-w>.

Shafiu A. K & Modid L. D (2020) Embezzlement and reckless spending. A bottle neck for local government revitalization and sustainable development in Nigeria. *Asian finance 7 banking review* 4(1) ISSN 2576-1188.

Solabomi O. A & Collins S.O (2017) A critical examination of government budgeting and public funds management in Nigeria. *International journal of public leadership* ISSN: 2056-4929.

Stephen Balley (1962). Public interest theory. *Encyclopedia.com social sciences and law*. Retrieved online at [https://www.encyclopedia.com/social-sciences-and-law/public interest](https://www.encyclopedia.com/social-sciences-and-law/public-interest).

Trisha (2020). Financial Control, objectives and implementation. A hand book on Financial Control. Retrieved online at [https://www.captio.com/blog/financial control, objectives and implementation](https://www.captio.com/blog/financial-control-objectives-and-implementation).



Corporate Governance Attributes and Tax Aggressiveness of Listed Industrial Goods Companies in Nigeria

OWAMAH, I. Victoria¹

AKPOBO I. Rex²

^{1&2}Department of Accounting,
Faculty of Management Sciences,
Delta State University, Abraka, Nigeria.
email: owamah.victoria@gmail.com

Publication Date: 2025/06/30

Abstract

This study investigated the effects of corporate governance on tax aggressiveness in Nigeria. The study was done using fifteen (15) companies drawn from healthcare, natural resources and construction/real estate from 2013–2022. Ex-post facto design was used and secondary data (board remuneration, board gender diversity, board independence and board ownership structure) were obtained from the yearly audited annual reports of the selected companies. To account for unobserved heterogeneity, endogeneity and serial correlation problems linked with panel data, the generalized method of moments was employed in testing the relevant hypotheses. The study demonstrates that corporate governance significantly influences tax aggressiveness. It is suggested that executives or the board's remuneration should be increased in order to further influence tax aggressiveness. Also, board ownership structure was found to negatively affect tax aggressiveness; hence there is the need for companies to reduce shares of CEOs in such a way that it does not prevail over total number of directors' shares. This would enable companies attract additional directors with more resources that can influence tax aggressiveness.

Keywords: *Corporate governance, Board remuneration, Board independence, Board gender diversity, Board ownership structure.*

Introduction

Corporate governance refers to policies and procedures adopted by firms to achieve certain sets of objectives, corporate missions and visions with regard to different stakeholders. Corporate governance influences good corporate management of organizations including the reduction of tax liability (Abdul-Wahab, 2019). Good corporate governance must be established to safeguard stakeholders in the company, maintain variables for control, and prevent collapse and a protracted economic downturn in pursuing commercial objectives. Corporate governance is the process by which

stakeholders hold firm management responsible for their stewardship to restrain corporate excesses (Al-Farooque, Buachoom & Sun, 2020). Corporate governance refers to the division of rights and responsibilities between the principal and agents; it is a system of corporate monitoring and provides a framework for putting the corporation's objective in place.

The term tax aggressiveness is used to describe a variety of acts taken by people and businesses to minimize their tax obligations. This can include doing things that are technically lawful but skirt the legal boundaries set by the tax code, like taking

advantage of tax regulations and deductions to reduce taxable income (Lanis, Richardson & Taylor, 2017). Aggressive tax behaviour can encompass a broad scope, from lawful tax planning to dishonest tax avoidance. A company may choose to take a more tax-aggressive stance to boost profits, reduce its tax liability, or take advantage of tax breaks and rebates (Oyeleke, Erin & Emeni, 2016). The payment of taxes is the responsibility of both individuals and corporations.

When a company takes advantage of legitimate tax laws to lower its tax burden, it is referred to as being tax aggressive (Salawu & Adedeji, 2017). Tax is a financial charge or other levy imposed upon a taxpayer (an individual or legal entity) by a state or the functional equivalent of a state (Okoye & Akenbor, 2010). The key objective of this study is to examine the effect of corporate governance on tax aggressiveness in Nigeria using four variables; gender diversity, board size, CEO duality, and ownership structure to proxy corporate governance and effective tax rate was used to proxy tax aggressiveness in Nigeria. However, the precise objectives are to: investigate the effect of gender diversity, board independence, board ownership, and board remuneration on tax aggressiveness in listed industrial goods companies

Corporate governance influences good corporate management of organizations including the reduction of tax liability. Onyali and Okafor (2018) observe that corporate governance attributes is interrelated with board size, managerial ownership, board independence, ownership concentration, board diversity, audit committee size, amongst others. Olayinka and Francis (2016) Pniowsky, (2018) found a positive relationship between corporate governance and tax avoidance.

To this effect, the following hypotheses were formulated:

H₀₁: There is no significant link between board gender diversity and tax aggressiveness of listed industrial goods companies

H₀₂: There is no significant link between board Independence and tax aggressiveness of listed industrial goods companies

H₀₃: There is no significant link between board ownership structure and tax aggressiveness of listed industrial goods companies

H₀₄: There is no significant link between board remuneration and tax aggressiveness of listed industrial goods companies

Literature Review

Corporate Governance

Most definitions of corporate governance emphasize a mechanism aimed at mitigating issues arising from the separation of ownership and control. Uwuigbe, Olusanmi, and Iyoha (2015) describe corporate governance as a system encompassing various practices and institutions, such as accounting standards, financial disclosure rules, executive compensation guidelines, and board size and composition, all designed to safeguard the interests of a corporation's owners. Uniamikogbo Bennee and Adeusi (2019) define corporate governance as the system through which organizations are guided and managed. The board's duties are overseeing management, ensuring the smooth operation of the business, setting strategic objectives, providing leadership to achieve them, and reporting progress to shareholders. Boards are subject to relevant laws and regulations.

In Nigeria, the legal and regulatory framework for corporate governance compliance is established through a blend of voluntary and mandatory measures, including the Companies and Allied Matters Act 2015 as amended, the Investment and Securities

Act 2017, the Securities and Exchange Commission (SEC) 2011, the Corporate Governance Code, and various industry-specific governance codes. The committee led by Atedo Peterside on corporate governance, commissioned by the Securities & Exchange Commission in Nigeria, led to the publication of the 2015 SEC Corporate Governance Code and the current revision of the SEC Code from 2011. Regulators have issued industry-specific codes for companies under their jurisdiction, such as the CBN Codes 2017 for banks and other financial institutions, PENCOD Codes 2016 for pension fund administrators, and NAICOM Codes for insurance companies.

- **Board Gender Diversity**

Considering that women tend to be more risk-averse and cautious than men, the gender composition of a firm's board of directors is believed to impact corporate policies and outcomes. Odoemela, Ironkwe and Nwaiwu (2016) suggest that companies with female directors exhibit lower absolute discretionary accruals or earnings management, attributed to their conservative nature compared to male counterparts (Adams & Ferreira, 2018). Nonetheless, this may not universally apply. Irawati, Maksum, Sadalia and Muda (2019) found evidence indicating that gender diversity on the board can reduce tax optimization. Thus, board gender diversity may either decrease or increase tax aggressiveness. Consequently, the study proposes the hypothesis: Board gender does not significantly influence tax aggressiveness.

- **Board Independence**

Granting boards of director's autonomy can establish efficient control mechanisms. External members, in particular, can ensure both competence and independence simultaneously (Onyali & Okafor, 2018). It is noteworthy that a higher proportion of outside (non-executive) directors on the board is

associated with a reduced likelihood of tax aggressiveness (Bhagat & Bolton, 2016). However, this may not always hold true in practice. Therefore, the study posits the hypothesis: Board independence does not significantly influence tax aggressiveness.

- **Board Ownership**

The ownership structure refers to the institution or organization that predominantly holds a company's shares (Aguilera, Desender & de Castro, 2012). It serves as the primary factor influencing shareholder wealth and the overall effectiveness of business operations. A well-structured ownership model ensures that no single authority can exert undue influence over the company's decisions solely based on ownership, as all shareholders have the opportunity to vote on significant matters crucial to the firm's functioning.

Consequently, this minimizes conflicts between owners and their representatives, thereby enhancing business performance (Al-Farooque et al., 2020). Ownership structure can be categorized as public, private, institutional and managerial ownership (Kibiel & Akenbor, 2014). For the purpose of this study, institutional and managerial ownership are focal points of analysis.

- **Board Remuneration**

Board remuneration refers to the compensation and benefits provided to members of a company's board of directors for their service and contributions to the organization. This compensation package typically includes various components such as retainer fees, meeting fees, committee fees, equity-based compensation, annual incentive awards, benefits, and director insurance (Zemzem & Khaoula, 2013). Effective board remuneration practices are crucial for attracting and retaining qualified directors, aligning their interests with those of

shareholders, promoting strong corporate governance, and driving long-term value creation for the company.

Tax Aggressiveness

Tax Aggressiveness, also referred to as “Tax Sheltering” or “Tax Planning,” has been defined in various ways by scholars. Hoffman (1961) defines tax aggressiveness as “the taxpayer’s ability to organize his financial affairs in such a way as to suffer a minimum tax liability.” Generally, tax aggressiveness is understood as the practice of arranging one’s financial affairs to defer, reduce, or eliminate the amount of taxes owed to the government (Pniowsky, 2018). In countries like Nigeria, Canada, the US, and many others, tax aggressiveness is permissible only when it conforms to the regulations outlined in the Income Tax Act (ITA).

Moreover, to minimize tax liability within the framework of regulatory guidelines, tax aggressiveness is acknowledged as the preferred strategy. According to Fallan, Hammervold, and Gronhaug (1995), tax aggressiveness can be achieved by adjusting tax rates across different tax environments and business activities, as well as by utilizing certain tax incentives provided for in tax laws. Additionally, Hoffman (1961) emphasizes the distinction between tax evasion and tax avoidance to gain a clear understanding of the concept of tax aggressiveness.

Failing to differentiate between these two concepts could result in questioning the permissible limits of tax aggressiveness, potentially leading to severe legal consequences such as penalties for non-compliance with tax regulations. Therefore, it can be concluded that the key terms to delineate the difference between tax avoidance and tax evasion are “legal” and “illegal” (Abdul-Wahab, 2019).

Theoretical Framework

Agency theory comprises a set of principles governing the management of contemporary corporations, particularly those with numerous shareholders. In such corporations, individuals possessing relevant professional expertise are entrusted to manage and direct collective capital for future gains, regardless of share ownership. Originating from economic theory, agency theory was initially formulated by Alchian and Demsetz (1972) and further developed by Jensen and Meckling (1976). This theory offers valuable insights into scrutinizing the relationship between owners and managers, especially in cases where managers lack ownership of corporate resources.

The crux of agency theory revolves around entrusting resources to agents expected to produce both qualitative and quantitative reports, aligning business owners’ and managers’ interests to achieve organizational goals. According to Kiel and Nicholson (2013), agency theory entails separating control from ownership, indicating that professional managers oversee a firm on behalf of its owners. It suggests that agents possess more information than principals, potentially hindering the principal’s ability to monitor whether the organization operates in their best interest. Managers, endowed with superior knowledge and expertise compared to owners, may prioritize personal interests over shareholders’ interests.

Methodology

This study used quantitative method by means of cross-sectional design covering a period from 2013-2022. It entails a study of publicly listed companies on the floor of the Nigerian Exchange Group (NGX), which were drawn from the Healthcare, Natural Resources and Construction/Real Estate sectors. The variables comprised four corporate governance variables (board gender diversity, board independence, board ownership structure and board remuneration) and one (1) tax aggressiveness variable – effective tax rate. Thus, the independent variables are corporate governance variables while the dependent variable is tax aggressiveness.

The population of this study comprised all publicly listed Healthcare, Natural Resources and Construction/Real Estate companies on the floor of the Nigerian Exchange Group (NGX) as of 31st December 2023. In NGX, there are seven (7) healthcare publicly listed companies, nine (9) construction/real estate and nine (9) natural resources, totalling twenty-five (25) publicly listed healthcare, natural resources and construction/real estate companies as at 31st December, 2023 (The Nigerian Exchange Group, 2024). Hence, the population was made up of twenty-five (25) publicly quoted listed healthcare, natural

resources and construction/real estate companies.

Given the nature of companies in these sectors under investigation, a sample of five (5) companies each were selected from each sector, hence totaling a sample size of fifteen (15) healthcare, natural resources and construction/real estate companies in Nigeria. The sampling technique was based on the inclusion and exclusion criteria; criterion employed was hinged on companies with spontaneous board remuneration and those without spontaneous board remuneration as well as management with tax aggressive behaviour.

This study used secondary source of data collection; the secondary data provides reliable information for the researcher to investigate how corporate governance variables relates with tax aggressiveness of publicly listed companies on the NGX as well as a means of providing solution to the identified problems in the course of the study. The secondary source of data collection include the yearly audited annual reports and accounts of the selected Healthcare, Natural Resources and Construction/Real Estate companies covering 2013-2022. Given the dependent and independent variables of the study, the following empirical models were estimated as follows:

$$\text{ETR} = (\text{BREM}, \text{BOWNS}, \text{BGD}, \text{BIND})$$

Eq.3.1

$$\text{ETR}_{it} = \alpha_0 + \beta_1 \text{BREM}_{it} + \beta_2 \text{BOWNS}_{it} + \beta_3 \text{BGD}_{it} + \beta_4 \text{BIND}_{it} + \varepsilon_{it}$$

Eq.3.2

Where: ETR is effective tax rate; BREM is board remuneration; BOWNS is board ownership structure; BGD is board gender diversity; BIND is board independence; α is regression constant; ε is error term; i is individual companies; t is time dimension. Furthermore, to validate the direction of causality and resolve the endogeneity problem associated with panel data, one lagged value was observed; the lag was observed on the right hand side of equations 3.1-3.2 using and

Z (a vector of company-level control factor) as follows:

$$\text{ETR}_{it} = \alpha_0 + \beta_1 \text{BREM}_{it} + \beta_2 \text{BOWNS}_{it} + \beta_3 \text{BGD}_{it} + \beta_4 \text{BIND}_{it} - 1 + \gamma Z_{it} + \varepsilon_{it}$$

Eq.3.3

Data obtained were analyzed using descriptive, diagnostic and inferential statistics. This study used a dissimilar methodological approach such as the Generalized Method of Moments (GMM) because it accounts for unobserved

heterogeneity, endogeneity and serial correlation problems.

Results

Table 4.1: Summary Statistics

Statistics	ETR	BREM	BOWNS	BGD	BIND
Mean	-16.188	1.5000	0.0065	17.315	0.5941
Median	-11.735	0.6573	0.0002	15.640	0.5833
Standard Deviation	5.5318	2.2614	0.0565	7.3636	0.1491
Kurtosis	3.7325	8.3151	4.9489	2.9645	4.8643
Skewness	-11.193	2.4299	11.938	0.5142	0.1174
N	150	150	150	150	150

Source: Computed by the Researcher (2025)

Table 4.1 revealed that ETR has a mean of -16.188; this indicates that the selected companies on the average have -16.2 percent overall tax expenses by prior-year accounting income tax. Besides, BREM recorded a mean of 1.5, indicating that board remunerations received on the average, a pay rise of ₦1.5 yearly. Also, BOWNS, BGD and BIND recorded mean values of 0.0065, 17.315 and 0.5941 respectively; this implies that the selected companies have approximately 0.65 percent CEO shareholdings compared to the total number of directors on the board, BGD (17.3%) indicates that the board had approximately 17% females compared to males on the board while BIND had a 5.9 percent proportion of non-executive director. The BGD is low and quite expected as most companies have more males than females on their board

The standard deviation revealed relative changes in the variables revolving around 0.0565 to 7.3363. The standard deviation for BREM (2.261) and BOWNS (0.0565) showed relatively low dispersion of board compensation and board ownership structure of the companies in Nigeria. The skewness values for BREM (2.429), BOWNS (11.938), BGD (0.514) and BIND (0.117) are positive; this suggests that in Nigeria board remuneration, board gender diversity, board ownership structure, board independence and effective tax rate moved in same direction. Also, kurtosis values for ETR (3.73), BREM (8.315), BOWNS (4.948), and BIND (4.864) were more than 3 (leptokurtic distribution), except BGD (2.964) that is less than 3 (platykurtic distribution).

Table 4.2: Pearson Correlation

Parameters	ETR	BREM	BOWNS	BGD	BIND
ETR	1.0000				
BREM	0.0264	1.0000			
BOWNS	-0.0052	-0.0377	1.0000		
BGD	-0.1143	-0.0104	-0.0425	1.0000	
BIND	-0.0940	-0.0101	0.0519	0.0064	1.0000

Source: Computed by the Researcher (2025)

Table 4.2 showed that BOWNS, BGD and BIND are negatively correlated with ETR

except BREM that is positively correlated with ETR; this implies that there is negative

relationship between BOWNS, BGD, BIND and ETR while a positive relationship exists

between BREM and ETR of the selected companies in Nigeria.

Table 4.3: Variance Inflation Factor (VIF)

Parameters	VIF	1/VIF
BOWNS	1.01	0.9941
BIND	1.00	0.9972
BGD	1.00	0.9979
BREM	1.00	0.9984
Mean VIF	1.00	

Source: Computed by the Researcher (2025)

Table 4.3 showed that the mean VIF is 1.00, which is less than the VIF threshold of 10.0; this indicates that there is absence of

multicollinearity in the model of corporate governance and tax aggressiveness of the selected companies in Nigeria

Table 4.4: Breusch-Pagan/Cook-Weisberg Test for Heteroscedasticity

Chi1(1)	=	279.71
Prob. > chi2	=	0.0000

Source: Computed by the Researcher (2025)

The Breusch-Pagan/Cook-Weisberg result is 279.71 with Prob.>F of 0.0000, which is less than 0.05% significance level, suggesting the absence of heteroskedasticity problem in the

model of corporate governance and tax aggressiveness of the selected companies in Nigeria; hence, the data does not contain unequal variances.

Table 4.5: Generalized Method of Moments Panel Estimation Results

Parameters	Equation
	ETR
L1	0.0156*** (14.08)
L2	0.0499*** (5.19)
BREM	0.2818*** (7.71)
BOWNS	-0.0228*** (-7.10)
BGD	-0.0769*** (-7.71)
BIND	-0.0383*** (-6.38)
Constant	7.17*** (22.10)
R-Squared	0.81
P-Value	0.0000

Source: Computed by the Researcher (2025) *significant at 5%**

Table 4.5 showed the GMM panel estimation results which was used to ascertain the impact of corporate governance variables (BREM, BOWNS, BGD& BIND) on tax aggressiveness (ETR). Table 4.6 demonstrates that the coefficients BOWNS, BGD and BIND were negative; hence, there is negative significant impact of BOWNS, BGD and BIND on ETR of the selected companies in Nigeria while a positive significant impact was found between BREM and ETR.

Furthermore, it was found that BREM, BOWNS, BGD and BIND jointly explained about 81% of the systematic variation in ETR. Also, a change in BREM, BOWNS, BGD and BIND would result to approximately 0.28%, 0.8% and 0.4% decrease in ETR except BREM that would lead to 28% increase in ETR. First, given the t-value of -7.71, the null hypothesis was rejected while the alternate hypothesis was accepted;’ this suggests that there is significant relationship between board gender diversity and tax aggressiveness of listed industrial goods companies in Nigeria; however, the relationship was found to be negative.

Second, given the t-value of -6.38, the null hypothesis was rejected while the alternate hypothesis was accepted;’ this indicates that there is significant relationship between board independence and tax aggressiveness of listed industrial goods companies in Nigeria; however, the relationship was found to be negative. Third, given the t-value of -7.10, the null hypothesis was rejected while the alternate hypothesis was accepted;’ this implies that there is significant relationship between board ownership structure and tax aggressiveness of listed industrial goods companies in Nigeria; however, the relationship was found to be negative.

Finally, given the t-value of -7.71, the null hypothesis was rejected while the alternate hypothesis was accepted;’ this implies that there is significant relationship between board remuneration and tax aggressiveness of listed

industrial goods companies in Nigeria; however, the relationship was found to be positive.

Conclusion and Recommendations

This study investigated the effects of corporate governance on tax aggressiveness. Two (2) important questions have been usually raised; the first is if efficient corporate governance can increase tax aggressiveness and second if companies with inefficient board would result to decreased tax aggressiveness; while findings seems to be mixed in the management literature, some researchers have the conviction that corporate governance efficiency would increase the likelihood tax aggressiveness.

In this study, we employed a sample of fifteen (15) companies drawn from healthcare, natural resources and construction/real estate from 2013–2022 to provide insights on the relationships between corporate governance and tax aggressiveness. The study demonstrates that corporate governance significantly influence tax aggressiveness of the publicly listed healthcare, natural resources and construction/real estate companies in Nigeria. On the basis of the findings of the study, the following recommendations are made:

- (i) The study suggests that board remuneration should be increased in order to further influence tax aggressiveness.
- (ii) Board ownership structure was found to negatively affect tax aggressiveness; hence there is the need for companies to reduce shares of CEOs in such a way that it does not prevail over the total number of directors’ shares. This would enable companies attract additional directors with more resources that can influence tax aggressiveness.
- (iii) Board gender diversity was found to negatively influence tax aggressiveness; thus, companies should ensure that there is adequate balance in number of female

directors on the board in order to positively influence tax aggressiveness behaviour

(iv) Board independence was found to negatively influence tax aggressiveness; thus,

companies should ensure that there is suitable proportion of non-executive director on the board in order to positively influence tax aggressiveness behaviour

References

- Abdul-Wahab, N.S. (2019). *Tax planning and corporate governance: Effects on shareholder's valuation*. Thesis for the degree of doctor of philosophy, University of Southampton, Southampton UK. Available online at [http://eprints.soton.ac.uk/162801/11\(2\),177-190](http://eprints.soton.ac.uk/162801/11(2),177-190).
- Aguilera, R.V., Desender, K., & de Castro, M.A. (2012). Board characteristics and audit fees: dimensions and determinants. *Academy of Management Review*, 28(3), 447-465.
- Al-Farooque, O., Buachoom, W. & Sun, L. (2020). Board, audit committee, ownership and financial performance – Emerging trends from Thailand. *Pacific Accounting Review*, 32(1), 54-81.
- Bhagat, S. & Bolton, B. (2016). Corporate governance and firm performance. *Journal of Corporate Finance*, 14(1), 257-273.
- Fallan, L., Hammervold, R., & Gronhaug, K. (1995). Adoption of tax planning instruments in business organizations: A structural equation modeling approach. *Scandinavian Journal of Management*, 11(2), 177-190.
- Hoffman, W. H. (1961). The theory of tax planning. *The Accounting Review*, 36(2), 274-281.
- Irawati, N., Maksum, A., Sadalia, I., & Muda, I. (2019). Financial performance of Indonesian's banking industry: The role of good corporate governance, capital adequacy ratio, non-performing loan and size. *International Journal of Scientific and Technology Research*, 8(4), 2-26
- Kiabel, B.D. & Akenbor, N.N. (2014). *Selected aspects of Nigeria taxes*. Owerri: Springfield Publication Ltd.
- Lanis, R., Richardson, G. & Taylor, G. (2017). Board of director gender and corporate tax aggressiveness: An empirical analysis. *Journal of Business Ethics*, 144(3), 577-596.
- Odoemela, U., Ironkwe, U. I., & Nwaiwu, J.N. (2016). Corporate governance mechanism and tax planning in Nigeria. *International journal of advanced Academic Research and Social & Management Sciences*, 2(9), 45-59.
- Okoye, E. J & Akenbor, C. O. (2010). Accounting policy and efficient corporate tax planning in Nigeria". *Association of National Accountants of Nigeria (ANAN) The Certified National Accountant*, 18(2), 42-50.
- Olayinka, P. O & Francis, L. E. (2016). Corporate governance and accounting quality: Empirical investigations from Nigeria. *Journal of Policy and Development Studies*, 9(2), 64-82.
- Onyali, C.I & Okafor, T.G. (2018). Effect of corporate governance mechanisms on tax aggressiveness of quoted manufacturing firms on the Nigerian stock exchange. *Asian Journal of Economics, Business and Accounting*, 8(1), 1-20.
- Oyeleke. O., Erin, O. & Emeni, F. (2016). Female directors and tax aggressiveness of listed banks in Nigeria. *3rd International Conference on a Development Issues*, 293-291
- Pniowsky, J. (2018). Aggressive tax planning: How aggressiveness? *Thompson Dorfman Sweatman LLP*, 3, 1-3.

Salawu, R.O. & Adedeji, Z.A. (2017). Corporate governance and tax planning among on-financial quoted companies in Nigeria. An international multi-Disciplinary. *Journal, DahirDar, Ethiopia, 11(3)*, 42-59.

Uniamikogbo E, Bennee, E & Adeusi. A. (2019). Corporate-governance-and tax-

aggressiveness in-Nigeria. *Ae-Funai Journal of Accounting, Business and Finance, 4(1)* 20-33.

Zemzem, A. & Khaoula, F. (2013). The effects of board of directors? characteristics on tax aggressiveness. *Research Journal of Finance and Accounting, 4(4)*, 140-147.



The Relevance of Environmental Communication and Solutions Journalism in the Quest for Sustainable Environment in Nigeria: The need for a synergy

Zekeri Ikelebe Alasa¹

Department of Mass Communication,
Edo University, Iyamho, Edo State, Nigeria
alasaiklebe@gmail.com
07069670810

Eguono Aghwadoma²

Department of Mass Communication,
Delta State University Abraka.

Solomon Obozunya³

Department of Mass Communication,
Edo State University, Iyamho, Edo State.

Publication Date: 2025/06/30

Abstract

In the face of escalating environmental degradation in Nigeria, the relevance of environmental communication and solution journalism cannot be undermined, as they have emerged as pivotal to fostering a sustainable environment in Nigeria. However, this paper examines the melting pot between environmental communication and solutions journalism in a bid to know their relevance in the quest for sustainable environmental development in Nigeria.. Also, the paper x-rays the prospects and challenges of environmental communication and how they impinge on effective reportage of environmental issues. The Agenda setting Theory is the theoretical framework the study is anchored on. Data for the paper were gathered using the library research method. From the findings of the study, it was also discovered that environmental communication has been very effective in reporting environmental problems as it has brought about environmental literacy geared towards educating the people on activities that affects the environment as well as telling them what they should do to ensure a sustainable environment. The paper also found that solutions journalism has always brought solutions and spurs climate action when stories lay emphasis on both environmental problems and actionable solutions. Finally, the paper recommends inter-alia that environmental journalists should always ensure that information disseminated in his course of reportage are geared towards fostering a more comprehensive approach to understanding and addressing the multifaceted challenges posed by environmental degradation and journalists who practice the solutions genre of journalism should always emphasise constructive reporting on social problems and potential solutions to environmental degradation issues. With this, the essence of solutions journalism will not be defeated.

Keywords: Environmental Communication, Climate Change, Solution Journalism, Deforestation, Environmental Degradation, Sustainable Development

Introduction

In today's world, the environment in which we live is so fundamental to our well-being and our future that it is expected of a responsible and a responsive media to give a reasonable amount of attention. As a genre of journalism that tends to unveil social problems with the aim of analysing their positive and negative effects on the society via evidence-based reporting, solution journalism as well as solution journalist is saddled with the responsibility of reporting issues that bothers on our environment.

The environmental journalist can exert positive influence on our environment cum society and consequently make useful impact on the future of our environment via solutions journalism. As noted by Gore (1991), the responsibility of giving an account of what is happening today, is not just only what is expected of the media but why it is happening, its effects on the society today, tomorrow and possible solution. This is an onus that directly falls on the mass media. According to Archibald (2010) environmental reporting is bedeviled with lack of important information. The little information available is centered on crises, limited sources information and other problems. In the face of all these pitfalls it is only little research that has been done on how environmental reporters operate and much is not known about the hurdles they encounter in the course of their reportage.

Generally, the environmental reporters face different types of problems which could be physical attack, death threat or imprisonment. For instance, journalists who want to embark on investigating the causes of global warming in some countries may receive death threat (Nwabuee, 2007). However, environmental journalists are expected to advocate for positive changes to improve the quality of the planet. According to Zazueta (2009), it is the responsibility of the journalist to educate the people about the serious state of the environment and employ the power of the

media to bring about positive changes to improve the quality of the air, water, wildlife and natural resource. With this, it is apparent that it is not just enough to report environmental hazards especially in an era of climate change.. a reportage of the environmental problems alongside the possible solutions which is the essence of solutions journalism becomes apt. as explained by Deborah Douglas quoted in Nowakowski (2024), solutions journalism gives the people a sense of hope, efficiency and a space for the inherent dignity of everybody in our community rather than problematising every situation like the traditional journalism.

Sustainable development in Nigeria is influenced by different factors including socio-economic practices, governance structure and environmental policies. The United Nation's Sustainable Development Goals (SDGs) provide a framework for integrating environmental sustainability into development planning. However, achieving these goals remains a challenge due to issues such as corruption, inadequate infrastructure and insufficient public participation (Adewale et al., 2021). The need for innovative and effective communication strategies to sensitise various stakeholders about sustainable practices is greater than ever.

The prospects of integrating environmental communication and solutions journalism into Nigeria's sustainable development are promising. With the Nigeria's youth population being increasingly active on social media, there is an opportunity to use these platforms for advocacy and change (Nwosu, 2018). Moreover, enhancing community-based initiatives through participatory communication can empower local communities to adopt sustainable practices (Ribot, 2024). However, numerous challenges hinder progress. These include limited access to education and information, prevailing negative media reports, weak regulatory

frameworks and lack of cooperation among stakeholders (Udo & Igbokwe, 2020). Furthermore, the pervasive influence of political and economic interests often complicates environmental messaging and undermines sustainability efforts (Eneh et al., 2019).

By and large, environmental communication and solutions journalism stresses the importance of audience participation. By integrating principles from social science such as audience segmentation and participator frameworks, journalists can develop stories that resonate deeply with different demographics thereby enhancing the relevance and impact of environmental communication (Cameron, 2020).

Statement of the Problem

In recent years, environmental degradation has emerged as one of the most pressing challenges facing Nigeria, manifesting in issues such as deforestation, pollution and climate change impacts. Despite the growing recognition of these environmental issues, effective communication strategies are often lacking, resulting in a disconnection between environmental challenges and the necessary public engagement in addressing them. According to UN Environment (2015), effective communication strategies can promote better environmental decision-making and encourage behavioural change among individuals and organizations. This transparent communication of scientific knowledge and environmental risks is essential in overcoming public apathy and misinformation (Bucchi & Nonino, 2019).

In view of the above, it seems that a possible confluence of environmental communication and solutions journalism will present a powerful paradigm to enhancing sustainable environmental practices, through a critical examination of their respective roles. With this, the quest is, to what extent has the integration of environmental communication

and solutions enhanced public awareness, engagement and advocacy for sustainable environmental initiatives? Again, how has their synergy contributed to a more informed and proactive society in the face of environmental challenges? These questions and more are the focus of this paper.

Objectives of the Research

The objectives of this study are to:

1. To find out the extent has environmental communication been used to reporting environmental problem
2. Ascertaining the effectiveness of solutions journalism in discovering and proffering solutions to environmental risk issues

Research Questions

1. To what extent has environmental communication been used to reporting environmental problem?
 1. How effective is solutions journalism in discovering and proffering solutions to environmental risk issues?

Literature Review

The concept of environmental communication and solutions journalism

Environmental communication refers to the utilization of communication to bring to bear, issues that affects the environment in order to safeguard or promote the environment (Nwabuee, 2007). Meisner (2015) explains human interaction with the environment. This interaction is a broad one. It ranges from face communication mass communities to general decision-making and environmental media coverage. To Flor (2004), environmental communication entails the employments of communication approaches, principles, strategies and techniques to manage and protect the environment. As defined by environmental communication scholars, it involves the demonstration and exchange of messages related to policies,

ecological risks and sustainability efforts (Cox, 2010). This domain examines the role of the media, discourse and public perception in shaping environmental attitudes and informing policy-making.

Solutions journalism is an approach to reporting that focuses on the responses and solutions to social problems rather than merely highlighting issues. It is a type of journalism that encourages a more informed public dialogue and inspires action by showcasing real-world examples of positive change. According to Nowakowski (2024) solutions journalism tends to provide answers or solutions to pressing social problems and then evaluate the efficacy of such intervention. It made you understand how your proposed solution is working or how it could work. Also known as construction journalism, solutions journalism is a practice focused on reporting about responses to social problems rather than solely on the problems themselves. As formulated by the solutions journalism Network (2013), this approach provides evidence-based nuanced stories that highlight effective responses and promote civic engagement.

Sustainable development is a concept that integrates the need for economic growth, social equity and environmental protection, ensuring that development benefits current and future population. According to Stern (2007), sustainable development involves a multi-faceted approach that spans environmental integrity, social equity and economic viability. Succinctly put, sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs (World Commission and Development, 1987). The United Nations has emphasised that sustainable development requires “transferring the world for the better in ways that inclusive, sustainable and resilient development will be attained (United

Nations , 2015, sustainable Development Goals).

In Nigeria, environmental degradation has reached critical levels, manifesting through deforestation, oil pollution, waste management and biodiversity loss. These environmental issues not only threaten the ecological balance but also significantly impact public health, agriculture and economic development (Nwankwo et al., 2021). Despite the government policies and international commitments towards environmental sustainability, there exists a glaring gap in effective environmental communication that hampers public awareness and engagement (Okonkwo & Jiboku, 2020). However, reporting the environment as a core issue for the society set numerous challenges for journalists. According to some analysis and interviews made, Zazueta (2009) supplies the challenges of environmental reporting as follows:

- Lack of environmental and scientific training.
- Unavailability or limited access to government information on environmental conservation
- Threats to life and professional activities by forest mafias.
- Journalists have to deal with the issues of lack of training, resources or support from news editorials or sponsors.
- In recent times, it seems as if media focus on environmental issues has dwindled and this has affected the international scenario. With this, journalists need to address other issues such as terrorism, poverty economy politics and international relations.

However, studies indicate that available environmental stories in the media often lack depth and fail to highlight practical solutions to environmental challenges (Adeyemi & Oguntimehin, 2019). This omission can

contribute to apathy and lack of collective action among the populace, as many individual remain unaware of relevant sustainability practices or implications of their environmental footprints (Ogunyemi et al.,2021). The recognition of these arrays of problems and solutions to them will impact the creation of a dialogue that is all encompassing and a discussion on environmental issues that are of broad public concern.

Simultaneously, the concept of solutions journalism- a reporting approach that emphasizes constructive responses to societal challenges- has gained traction globally as a means to drive engagement and inspire action (Holt, 2018). While solutions journalism has the potential in Nigeria media landscape, it faces significant challenges including a lack of training or journalists, inadequate resources and predominant focus on sensational reporting that prioritises crises over solutions (Oboh et al., 2020).

Thus, the intersection of environmental communication and solutions journalism is key to fostering sustainable practices in Nigeria. Both environmental communication and solutions journalism stress the importance of audience participation. By integrating principles from social science such as audience segmentation and participatory frameworks, journalists can develop stories that resonate deeply with different demographics thereby enhancing the relevance and impact of environmental communication (Cameron, 2020). However, the current research landscape has inadequately addressed how these two fields can be integrated to drive meaningful change. This study seeks to explore the relevance of environmental communication and solutions journalism in promoting sustainability in Nigeria, examining both opportunities they present and the challenges they face in effectively contributing to environmental awareness and action.

Types of Environmental Problems in Nigeria

As a country with different topography, climate, vegetation and culture, Nigeria has various types of environmental problems. According to Education Research and Development Council (NERDC, 2008), the major environmental problems in Nigeria include:

- 1. Deforestation:** This **always** happened when we destroy vegetation in the name of processing land for agriculture or construction. These activities bring about deforestation which entails the removal of plants for different purposes. Plants are very useful in our environment as they provide oxygen to the air and their roots help to protect, hold soil particles and protect them from atmosphere forces.
- 2. Soil Erosion:** The removal of topsoil or surface of the soil by various agents such as humans, water or winds is referred to as soil erosion. Serious erosion generates gullies. Soil erosions are caused by heavy rains after vegetations have been removed by human beings.
- 3. Desert Encroachment:** desert encroachment or desertification is a product of deforestation. i.e. the removal or destruction of tree or vegetation remains a major environmental problem in Nigeria. This is prevalent in the northern part of the country.
- 4. Flooding:** Flooding occurs when there are heavy rains and there is a lot of water in place more than what the soil can absorb. Flood destroys lands, houses and other valuable properties. It is always common in riverine areas
- 5. Pollution:** There are different types of pollutions in Nigeria. Pollution can be air, water or noise .oil spillage due to breakage of pipelines can also cause pollution. Any sort of pollution can cause health hazard to human beings.

6. Coastal Erosion: This sort of erosions occurs in coastlines and this is very common in southern Nigeria. The waves from Atlantic Ocean are major cause of coastal erosion. This type of erosion waste off the sands on beaches.

Environmental Communication and Solutions Journalism in Sustainable Development

There is plethora of studies that have explained how environmental communication and solutions journalism have contributed to environmental sustainability. Solutions journalism can compliment environmental communication by reframing the discourse around ecological crises, moving from a predominantly problem-focused narrative to one that emphasizes adoptive strategies and resilience. Public trust in environmental information can be blistered by narratives that showcase successful innovations and positive outcomes (Johnson & Donohue, 2019)

Numerous case studies illustrate the effectiveness of this synergy. For instance, initiative that combine environmental issues and solutions journalism have played a role in mobilizing actions towards sustainable practices (Bowman & Biny, 2021). Those studies provide empirical evidence of how solutions-oriented narratives can lead to increased public interest and engagement. A study carried out by Nisbet & Goidal(2007) demonstrates that media coverage significantly influences public concern for environmental issues. The study also shown that the type of framing, whether negative (problem- centered) or positive (solution oriented) can shape public perception and responses.

Recent studies indicate that media engagement through solutions journalism has led to communities- level actions such as increased participation in local sustainability projects and heightened public interest in environmental policies (Cohen, 2020). For

instance, the reporting on urban green initiatives has been shown to foster community involvement and promote behavioural changes towards sustainable practices (Sullivan, 2021). However, the collaboration of environmental communication and solutions journalism can create a synergistic effect that will amplified their collective impact on sustainable environmental practice. By combining the informative nature of environmental communication with the proactive reportage of solutions journalism, media practitioners can cultivate a more engaged citizenry. As explained by Stibbe (2015), stories that focus on constructive solutions do not inform but also motivate the audience to actively participate in environmental sustainability efforts.

The benefits of environmental communication in sustainable environment according to Nisbet (2009), include:

- **Enhanced Public Understanding of Environmental Issues:** Environmental communication increases the public's grasp of complex environmental issues, making them more relatable and understandable. This understanding is critical for informed decision-making at both individual and community levels.
- **Promotion of Behavioural Change:** Effective environmental communication can lead to significant changes in behaviours by raising awareness and motivating action. Framing messages in ways that resonate with audiences can prompt individuals and groups to adopt more sustainable practices.
- **Facilitation of Public Engagement and Policy Advocacy:** In this regard, Nisbet (2009), identifies the role of environmental communication in

fostering civic engagement. He explains that by connecting environmental issues to public values and interests, communication efforts can galvanise advocacy for policy changes at local, national and international levels.

- **Building Community Resilience:** Environmental communication strengthens community networks by fostering discussions around environmental issues and collective actions. Stronger communities are better equipped to address environmental challenges effectively.
- **Encouragement of Environmental Justice:** Effective communication strategies can amplify marginalized voices in discussions about environmental issues leading to more equitable solutions and policies. By addressing environmental justice, communication can help in identifying and remedying inequalities.

Theoretical Framework

Any analysis of agenda setting must start with the question whose agenda, and articulated through discourse? What is obvious is that there is much more to the agenda setting process than merely listing what is important (Watson 2003). Proposed in 1972/1973 by McComb and Shaw, the theory posits that the mass/ news media may not always succeed in telling us what to think but they quite succeed in telling us what to think about. According to Asemah (2011) agenda are topical issues or subjects of discussion. These issues or subjects elicit negative or positive responses from the public.

Citing McComb and Shaw (1972), Fab – Ukozor (2004) explains that this theory was developed after the study of the media role in the 1968 presidential election of the United

States confirm that the mass media do influence the thinking of the people or shape their opinion towards a particular direction is quite tremendous. He also explained that McComb and Shaw argued that by paying attention to some issues and neglecting others, the mass media decide the agenda of public discourse. Hence, the level of public attention given to the issues is determined by the gate-keeping function of the mass media.

McComb and Shaw, cited in Fab-Ukozor (2004) say this much when they state that in choosing and displaying news; editors, news room staff and broadcaster pay an important part in shaping political reality. Readers learn not only about a given issues, but how much importance attach to that issue from the amount of information in a new story and its position.

This view further reinforced by Spears and Sevdegant's assertion that:

The images that appear in mass media not only reflect society, they play a role in directing it as well people either see themselves, their values and their aspirations reprinted in the media or they not. To the extent people find themselves represented in the media, they find their goals and activities validated.

The foregoing implies that the media “play drums and when they play their drums”, we begin to dance to the tune of their music. It is however worthy to note that the issues raised by the media change from time to time and it is because the society is dynamic. So many events transpire in our society on daily basis. Thus, as events happen at different times, the issue raised by the media change. Folarin (1998) note that agenda setting theory implies that the mass media predetermine what issues are regarded as important at any given society. Agenda setting theory does not ascribe to them the power to determine what we are thinking about. The elements involved in agenda setting according to Folarin (1998) include:

- i. The quantity or frequency of reporting;
- ii. Prominence given to the reports through headlines display, pictures and layout in newspapers, magazines, films, graphics or timing on radio and televisions;
- iii. The degree of conflict generated reports' and
- iv. Cumulative media specific effect over time.

In reporting environmental issues, the mass media are expected to mount the the driver's seat with regard to agenda setting and create awareness on environmental issues. Environmental issues should be reported in the media in different forms of media including editorials, opinion, investigative reports and interviews (Olatunji, 2004).

Methodology

This study adopted the library research method. This type of research method is based on the materials published in reports and similar documents that are available in public libraries, websites and data obtained from surveys already carried out. This method is conducted without direct interaction with individuals or the collection of new data. Library research is cost-effective and time – efficient, making it a valuable method for obtaining a broad understanding of a topic or for laying a ground work for more focused primary research. However, it is essential to recognized it limitations, such as potential bias in existing data and the inability to capture real- time or context- software or context specific information (Ikharo, Ekwemalor Agbaka and Arikenbi, 2024).

Findings

Research Question one: to what extent has environmental communication been used to reporting environmental problem?

As a non-fiction form of reporting that bothers on reporting issues of deforestation, soil erosion, flooding, pollution etc, environmental communication has been very effective in reporting environmental problems. As noted by Nwabueze (2007), environmental communication brings about environmental literacy geared towards educating the people on activities that affects the environment as well as telling them what they should do to ensure a sustainable environment.

Research Question two: how effective is solutions journalism in discovering and proffering solutions to environmental risk issues?

As observed by Maduneme (2025) solutions journalism has always brought solutions and spurs climate action when stories lay emphasis on both environmental problems and actionable solutions. This empower readers as it showcase their potential contribution in ameliorating situations raised their sense of collective potency and zeal to act. Corroborating, Frost (2022) notes that a flooding story about Connecticut town underscores the economic benefits with environmental solutions which bring about hope and encouragement among readers. These findings are pointer to the fact solutions journalism can serve as veritable tool to fostering positive environmental change and sustainability, as far as it balances optimism with sincere calls to action.

Conclusion

Despite, the fact that environmental communication and solutions journalism in Nigeria is faced by several challenges between both genres of journalism presents significant prospects for advancing sustainable development in Nigeria. To harness the full potentials of these approaches, it is essentials to invest in media literacy enhance collaboration among stakeholders and promote policies that support independent

journalism. However, the way forward lies on nurturing an ecosystem where environmental stories and solutions are not only told but actively embraced by creating a more sustainable future for all Nigeria,

Recommendations

Based on the findings the paper recommends:

1. Environmental journalists should always ensure that information disseminated in his course of reportage are geared

References

Adewale, A., Olaniyan, A., Ayo, T. (2021). Sustainable Development and Institutional Framework in Nigeria: Challenges and Prospects. *Journal of Environmental Studies*, 14(2), 45-65.

Adeyemi, A.E., & Oguntimehin, M.B. (2019). Environmental Communication: the Role of the Mass Media in Environmental Awareness among Nigerians. *Environmental Communication*. 13(3), 348-360. Doi: 10.1080/17524032.2019.1572215.

Asemah, E.S. (2011). *Selected Mass Media Themes*. Jos University press.

Bowman, A. & Bunny, M. (2021). Community Resilience Through Solutions Journalism Case Studies and Best Practices. *Environmental Communication*, 15(3) 378-390

Bucchi, M., & Ninoni, F. (2019). The role of expert knowledge in the understanding of science. In *Routledge Handbook of Science Communication*, 2nd Edition.

Cohen, J. (2020). The impact of solutions journalism on community engagement: Assessing the

towards fostering a more comprehensive approach to understanding and addressing the multifaceted challenges posed by environmental degradation.

2. Journalists who practice the solutions genre of journalism should always emphasise constructive reporting on social problems and potential solutions to environmental degradation issues. With this, the essence of solutions journalism will not be defeated.

effects of constructive news. *Journalism Studies*, 21 (4), 485-504.

Cox, R. (2010). *Environmental communication and public sphere*. Thousand Oaks. SAGE publications.

Eneh, O.N., et al., (2019). Environmental Challenges and Sustainable Development in Nigeria: The Role of Media and Communication. *International Journal of Environmental Research and Public Health*, 16(22), 4522

Flor, A.G. (2009). *Environmental communication: principles, Approaches and strategies of communication applied to environmental management*. University of the Phillipines, Open University.

Folarin, B. (1998). *Theories of Communication: An introduction*. Stirling-Holding Publishers.

Frost, A. (2022). *How solutions journalism can help spur climate change*. Retrieved from www.opb.org

- Gore, C. (1991). *The rise and fall of the Washington consensus as a paradigm for developing countries*. World Development.
- Hess, K., & Binder, M. (2013). The role of solutions journalism in environmental reporting: Exposing the challenges and opportunities. *Environmental Communication*, 7 (1), 29-44
- Holt, K. (2018). Solutions Journalism: A New Way to Report on Social challenges. *Journal of Professional Communication*. 8 (1)1-2
- Ikharo, S., Ekwemalor, N.F., Agbaka, J.O. & Arikenbi, P, G. (2024). Social media and ‘Japa Syndrome: Exploring the Role of Online Platforms in Shaping Migration Trends. *African Journal of Economics and Sustainable Deelopment*,7(3)167. DOI: 10.5589/AJESD- PICSTWNI.
- Johnson, S. & Donohue, G. (2019). *Framing Environmental Issues: the power of positivity*. *International journal of communication*, 13, 150-167
- Madume, E. (2 025). *Solutions journalism can spur climate action*, university of Oregon study finds. Eurekaalert.org. Doi: 10.177/0013916524128687.
- Meisner, C.(2 015). *Environmental communication: what it is and why it matters*. Retrieved from enwiki on
- Nibert, M.C. (2009). Communicating Climate Change: Why Frames Matter for Public Engagement. In *Climate Change Communication (pp,5-22}*. Springer. Doi : 101007/97- 1-4020-9510-31.
- Nibert, M. & Goidel, R . (2007). The Polls-Trends: Public Opinion on Climate Change. *Public Opinion Quarterl*, 71(3), 521-167
- Nowakowski, T. (2024). *Not just bad news: what is Solutions journalism*. Retrieved from news.northwestern.edu/stories/2024/0/eplainer-what-is-solutions-journalism/#text=in addition to covering local, how the intervention is working.
- Nwabueze, C. (2007). *Environmental Communication Perspectives on Green Communication and Information Management*. Daily press.
- Nwankwo, J.I., Okonkwo, M.A., & Abang, S.A. (2021). Environmental Degradation in Nigeria: Challenges and Prospects for Sustainable Development. *Journal of Environmental Management*. 284.112028.Doi: 10.1016/j.jenwman.2021.112028.
- Nwosu, I. (2018). Youth Activism and Social Media: Paving the Way for Environmental Advocacy in Nigeria. *Journal of Youth Studies*, 21, (1), 22-30
- Oboh, E., Edukugho, E.E., & Okere,A. (2020). Exploring the Challenges of Solutions Journalism in Nigeria: Media Diversity and Environmental Awareness.

Nigeria Journal of Communication 17(1) 12-29.

Ogunyemi, A.O., Adedeji, A.A., & Aghadiuno, O. (2021). Public Perception of Environmental Issues: A Focus on Communication Patterns in Nigeria. *Journal of Environmental Studies and Sciences*, 11(2), 166-175. Doi: 10.1007/s13412-021-00712-4.

Okonkwo, U.C., & Jiboku J.A. (2020). The Role of Environmental Communication in Sustainable Development in Nigeria: A Review of Current Literature. *International Journal of Environmental Research and Public Health*, 17(22), 8597. Doi: 10.3390/ijerph17728597.

Ribot, J. (2014). Democratic Decentralisation: A Pathway to Sustainable Development. *Journal of Comparative Policy Analysis: Research and Practice*, 16 (2), 93-104.

Stern, D.I. (2007). *The Economics of Climate Change: The Stern Review*. Cambridge University press

Stibb, A. (2015). *Communicating Sustainability: The role of narrative in environmental change*. *Environmental development and sustainability*, 17 (6), 1501-1520.

Sullivan, A. (2021). Community Practices and urban sustainability: The role of the media in enhancing engagement. *Media, Culture and Society*, 43(5), 703-719.

Udo, A., & Igbokwe, C. (2020). Challenges of Environmental Communication in Nigeria: The Role of Media and Policy. *Journal of Environmental Policy and Planning*, 22 (1), 87-102.

UN Environment (2015). *Environmental Communication Handbook*. United Nations Environment programme.

United Nations. (2015). Sustainable Development Goals.

Watson, J. (2003). *Media Communication: An introduction to Theory and process*. Palgrave Macmillan.

Weber, K. (2016). Solutions journalism: A new approach to covering social issues. *Journalism practice*, 10 (3), 378-395.

World Commission on Environment and Development (1987). *Our Common Future*. Oxford University Press

Zaueta, D. (2009). *Environmental Journalism and its Challenges*. Retrieved on from www.panda.org/75862.



Beyond Code: Rethinking Front-End Interface Design through Specialised Communication Design Expertise

Roy-Omoni Sylvester

Department of Fine and Applied Arts

Delta State University, Abraka

email: sylvesteroy@gmail.com

08032662464

Publication Date: 2025/06/30

Abstract

This study investigates the critical role of visual communication and graphic design experts in front-end user interface (UI) development for web and mobile applications in Nigeria. Historically, programmers have dominated UI development, often prioritising functionality over aesthetic appeal and usability. This has led to digital interfaces that are technically functional but lack cultural resonance, emotional engagement, and visual clarity, key drivers of user retention and satisfaction. Drawing on Norman's Emotional Design and Hall's High-Context Communication Theory, the research explores the consequences of excluding visual design professionals from early stages of UI development. Using a qualitative, studio-based research model supported by Creswell (2013), data were collected through semi-structured interviews, observational walkthroughs, and design evaluation rubrics involving 15 designers, 10 programmers, and 30 users across three Nigerian cities. The findings reveal that programmer-led interfaces often suffer from poor typography, visual hierarchy issues, and a lack of symbolic depth, which hinder user engagement. In contrast, designer-led applications demonstrate cultural empathy, intuitive navigation, and emotionally resonant visuals that enhance usability and trust. Thematic analysis identified key challenges such as late-stage inclusion of designers, poor cross-disciplinary collaboration, and the undervaluation of design literacy in programming education. The study advocates a collaborative model that integrates designers and developers from the onset of digital projects. It recommends systemic reforms in UI workflows, academic curricula, and national design standards to reflect Nigeria's cultural diversity. The paper concludes that Nigeria's digital ecosystem must prioritise visual communication expertise to elevate interface usability, aesthetic resonance, and local identity in digital interactions.

Keywords: Visual Communication, Graphic Design, User Interface, Digital Interfaces, User Experience, Nigeria, Qualitative Research

Introduction:

The accelerating digitisation of services across Nigeria has amplified the relevance of user interface (UI) design beyond technical proficiency, demanding a deeper engagement with visual communication principles. While programmers traditionally lead UI development, their dominance has often sidelined the nuanced role of visual communication, resulting in platforms that are functional but visually disengaging and culturally tone-deaf (Uduma & Okafor, 2019; Oladejo, 2020). This imbalance has produced interfaces that overlook the affective and symbolic layers essential for meaningful user interaction in a culturally complex society like Nigeria.

The exclusion of visual designers from the initial stages of digital product development has contributed to a persistent disconnect between technological performance and user satisfaction. Scholars argue that this gap is particularly detrimental in high-context cultures, where communication extends beyond text and function to include symbolism, aesthetics, and emotional tone (Hall, 1976; Norman, 2004). Despite growing academic discourse on culturally responsive design, empirical investigations into the comparative outcomes of designer-led versus programmer-led interfaces in Nigeria remain limited.

This study addresses this gap by exploring how the integration of graphic design and visual communication expertise influences UI effectiveness, emotional resonance, and cultural alignment. Through a qualitative, studio-based inquiry, it interrogates not only the aesthetic failures of programmer-led designs but also the systemic barriers preventing meaningful cross-disciplinary collaboration in digital design ecosystems.

Background of the Study

The rapid digitisation of services in Nigeria has magnified the importance of user interface (UI) design, shifting it from merely functional considerations to encompassing strategic visual communication imperatives (Uduma & Okafor, 2019). Historically, programmers dominated UI design, leveraging technical proficiency over aesthetic literacy (Oladejo, 2020). While functionally operational, programmer-led interfaces often lacked aesthetic appeal, neglecting critical visual communication principles necessary for effective user engagement and experience (Afolabi, 2021).

Contemporary discourse in visual communication design increasingly critiques the predominant reliance on programmers for interface design. According to Ezeani and Adeleye (2022), interfaces designed without visual communication expertise frequently suffer from cluttered layouts, inadequate visual hierarchies, and culturally insensitive aesthetics, negatively affecting user retention and satisfaction. Olaniyan and Ugwu (2021) further identify cultural alignment as critical, particularly in Nigeria's multi-ethnic digital landscape, underscoring the inability of non-experts to capture nuanced visual communication cues essential for targeted audience appeal.

Literature consistently illustrates that expert-driven visual communication significantly enhances digital product usability and audience engagement (Onuorah & Adebayo, 2020). Yet, a noticeable research gap exists in empirically demonstrating the comparative impact of visual communication professionals versus programmers in Nigerian digital contexts. This study addresses this gap by qualitatively analysing user experiences, interface aesthetics, and functionality outcomes from a variety of Nigerian-designed digital platforms, advocating for a more visually literate approach to interface design and development.

Statement of Problem

Despite the increasing complexity of digital ecosystems, Nigerian interface design continues to be dominated by code-centric developers lacking formal training in visual semiotics and user-centered aesthetics. This research addresses a user-centred gap in understanding the practical consequences of this imbalance on usability, user satisfaction, and cultural relevance.

Research Objectives

The study sets out to

1. Examine the consequences of programmer-dominated UI development on the visual clarity, usability, and cultural relevance of Nigerian digital interfaces;
2. Investigate the impact of excluding graphic and visual communication experts in the early phases of interface design;

3. Compare user experience and satisfaction between programmer-led and designer-led interfaces across selected Nigerian platforms;
4. Identify the systemic challenges hindering collaboration between programmers and visual designers in digital development environments and;
5. Propose a culturally contextualised, collaborative UI development model that integrates visual communication design from project inception.

Significance of the Study

This research provides empirical evidence to support the redefinition of UI design roles in Nigeria. It offers actionable insights for curriculum developers, policy-makers, and tech practitioners seeking to bridge aesthetic and functional divides in digital product development.

Theoretical Framework

This study is grounded in Norman's (2004) theory of Emotional Design and Hall's (1976) High-Context Communication Theory. Emotional Design emphasizes the value of aesthetics and emotional responses in usability, asserting that well-designed visual interfaces improve user satisfaction and long-term retention. Hall's theory underscores the cultural context in communication, asserting that in high-context cultures like Nigeria, meaning is often embedded in non-verbal cues, colours, symbols, and patterns, which programmers often overlook due to a lack of cultural semiotic training.

Literature Review

Ezenwa and Nwankwo (2021) criticize the homogenisation of Nigerian UI designs, describing them as derivative of Western platforms and largely void of indigenous cultural markers. They argue for context-specific visual strategies that resonate with the Nigerian socio-cultural psyche. In support of this, Anozie and Ayodele (2022) contend that African digital aesthetics must be grounded in local symbolic languages, emphasising that reliance on global templates erases nuanced cultural expressions essential for user identity affirmation.

This perspective aligns with international arguments by Marcus and Gould (2000), who assert that culturally adaptive design leads to better usability outcomes, particularly in multicultural societies. Their cross-cultural usability studies validate the call for indigenous frameworks that Ezenwa and Ayodele propose.

Similarly, Chukwu and Balogun (2022) provide empirical backing from a usability study on university portals in Nigeria, reporting that portals designed without visual communication professionals were 42% less effective in visual clarity and user satisfaction. This finding mirrors Norman's (2004) emotional design proposition, emphasising how emotion and perception guide usability beyond logic and function.

Afolabi (2021) complements this by discussing the phenomenon of visual illiteracy among Nigerian software engineers. His critique of their disregard for visual hierarchy and typographic clarity is supported by Tufte's (1990) theory of visual information design, which states that misused or ignored visual cues compromise cognitive accessibility.

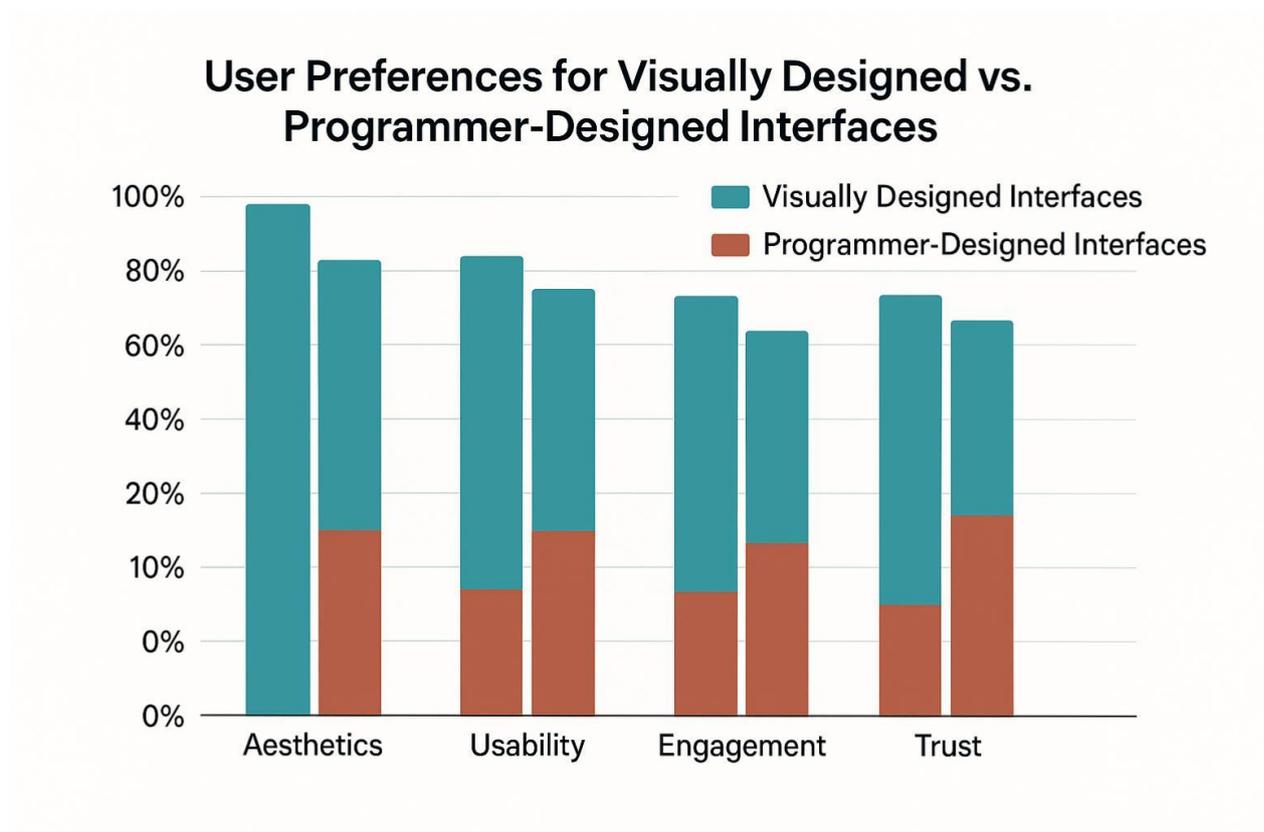
Olaniyan and Ugwu (2021) reinforce the necessity of symbolic depth in interface design, which resonates with Hall's high-context communication model. Their insights connect with Edward T. Hall's assertion that meaning is embedded in context and culturally attuned symbols, a crucial gap in code-centric digital design.

These intertwined arguments point to a fundamental gap in practice: while programmers understand system logic, they are not trained to speak the visual and cultural language of users. This lack of interdisciplinary fusion has led to visually ineffective and culturally tone-deaf platforms.

Methodology

The study employed a studio-based, qualitative research design as recommended by Creswell (2013) for inquiries focused on depth and meaning-making. Semi-structured interviews, observational walkthroughs, and a visual design evaluation rubric (Appendix A and B) were used to extract experiential data.

Figure 1. User preference comparison between interfaces developed by programmers and those designed by visual communication experts across four usability dimensions. Source: Sylvester R.O. (2025).



The interview questions are highlighted below to gather qualitative insights from UI stakeholders:

1. Can you describe your role in your most recent UI/UX project?
2. At what stage were visual design professionals included in the development process?
3. What challenges did you experience with programmer-led design?
4. Can you describe a positive example of a UI designed with visual input?
5. How important is cultural symbolism in interface design for Nigerian users?
6. How would you compare user feedback on designer-led versus programmer-led interfaces?
7. What recommendations would you offer for improving collaboration in UI design teams?

Three-Step Interview

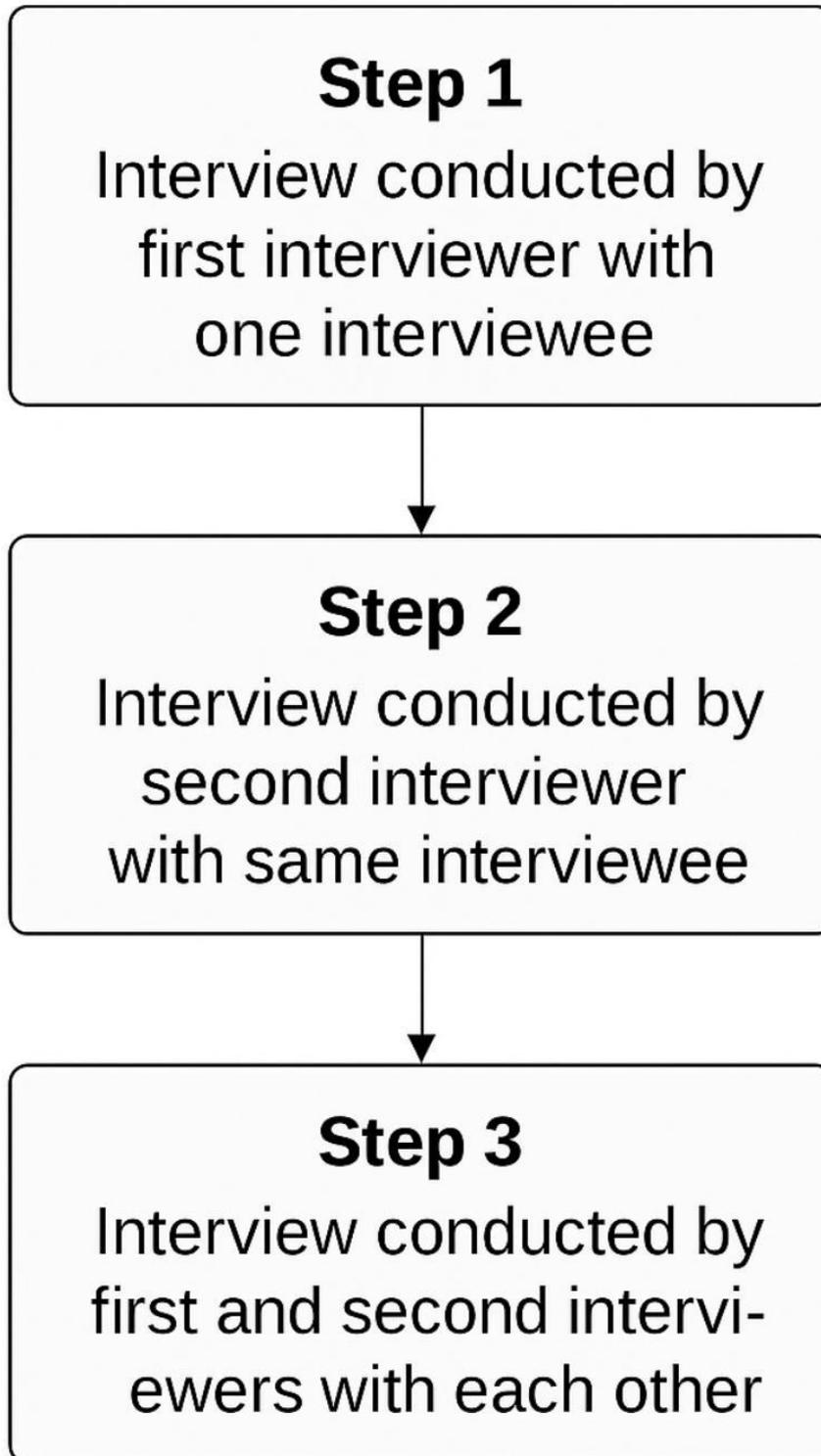


Figure 2. Flowchart illustrating the three core phases of the thematic analysis model used in this study. Source: Sylvester R.O. (2025).

Participants included 15 graphic/visual designers, 10 programmers, and 30 end-users across Lagos, Abuja, and Benin. Purposive sampling ensured that selected individuals had hands-on experience in UI-related projects. Data was transcribed and coded manually using Braun and Clarke's (2006) thematic model.

Trustworthiness was assured through triangulation (cross-verifying interviews with observational data) and member checking, with transcripts sent back to participants for validation.

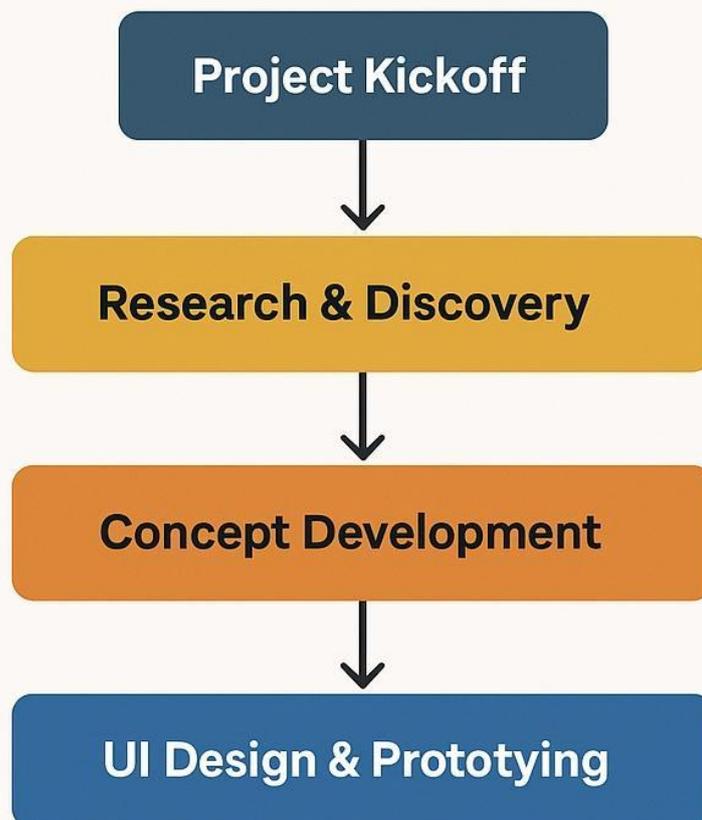
Figure 3. A UI/UX co-design process flowchart showing four collaborative phases: Research & Discovery, Concept Development, UI Design & Prototyping, and Testing & Iteration. Source: Sylvester R.O. (2025).

Findings and Analysis:

Three overarching themes emerged:

1. Visual Alienation in Programmer-Led Interfaces: End-users described certain fintech apps and institutional websites as “unfriendly,” “hard to navigate,” and “too plain.” One participant described a federal university’s portal as “cold, uninviting, and hard to read.” Designers confirmed that projects led solely by developers prioritised backend stability at the expense of layout balance and visual clarity.

2. Emotional Engagement in Designer-Led Interfaces: Participants frequently praised apps like "ZikoraPay" and "YorubaLearn" for “cultural warmth,” “easy flow,” and “relatable icons.” These interfaces featured localised colour palettes, intuitive icons, and user flows that

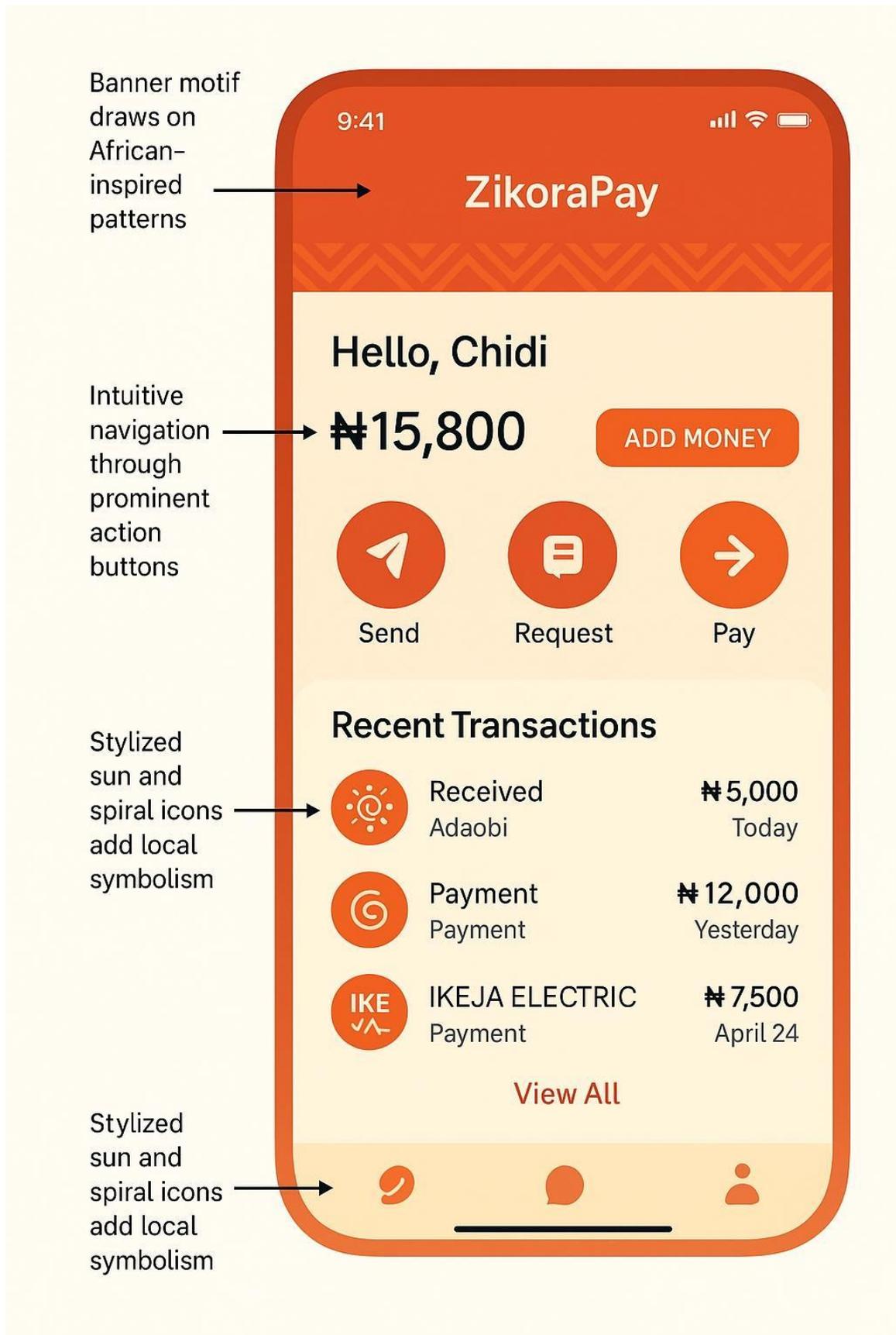


Workflow diagram showing ideal UI/UX co-design process integrating designers from the outset

Source: Adapted from studio-based field observation, 2025

mirrored common Nigerian user logic.

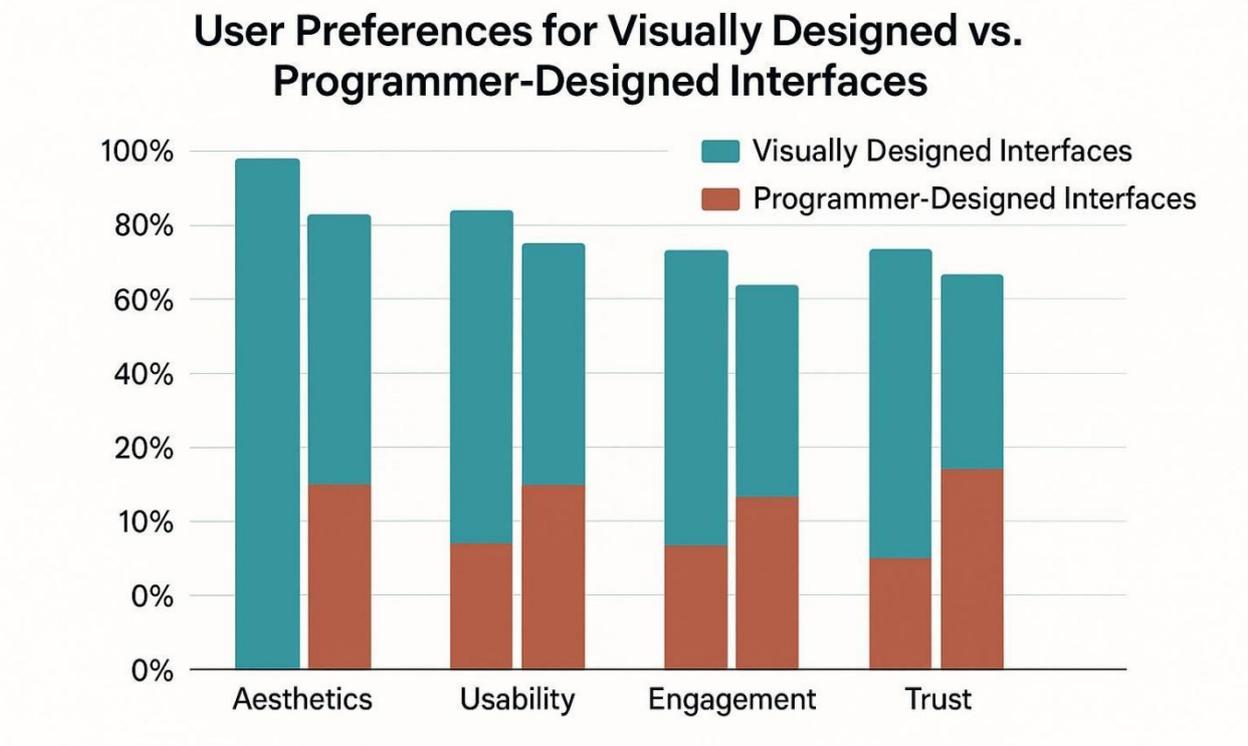
Figure 4. User Interface mockup of “ZikoraPay” mobile app illustrating Afrocentric design integration. Source: Adapted from ZikoraPay App Design Portfolio (2025).



3. Workflow Tensions and Marginalisation of Designers: Designers reported being brought into projects late or only for logo and color fixes. Many described being “decorators” in a

process led and defined by engineers. This exclusion led to fragmented user experiences and inefficient iteration cycles.

Figure 5. Thematic evaluation scores for designer-led vs. programmer-led interfaces across



key UI design metrics. Source: Sylvester R.O. (2025).

Discussion:

The current approach to UI development in Nigeria reveals a systemic imbalance between code functionality and visual literacy. Programmer-led interfaces may function smoothly but frequently miss critical visual cues that facilitate intuitive user engagement. Interviews indicated that users often mistrust visually bland apps, associating them with governmental inefficiency or foreign detachment.

Designer involvement brought not only aesthetics but user empathy, colour psychology, spatial consistency, localised navigation logic, and cultural semiotics were all evident in successful platforms. Such inputs are crucial in a nation as visually rich and semiotically dense as Nigeria. The absence of a design-first approach explains much of the underperformance in digital interfaces locally.

Recommendations

1. Integrate graphic design experts into the software development lifecycle from project inception.
2. Update software engineering curricula in Nigerian universities to include core visual design and semiotic literacy.
3. Develop national UI standards rooted in African semiotic systems.
4. Support cross-training workshops where developers learn visual grammar and designers grasp basic front-end logic.
5. Promote user co-design strategies to align digital design with actual user mental models.

Conclusion

The future of Nigerian digital platforms hinges not only on code efficiency but also on the emotive power of visual communication. This study confirms that UI designed without communication design expertise fails to engage, persuade, or retain users effectively. Embracing a designer-developer co-creation culture will reposition Nigeria's digital sector as both technically sound and culturally resonant.

Suggestions for Further Research

Future studies could employ mixed-method research to quantify emotional resonance through eye-tracking or heatmaps on interfaces. Another avenue would be the construction of a Nigerian Visual Literacy Framework for UI/UX development, grounded in local iconography and symbolic logic.

References

- Adetunji, S., Bello, T., & Musa, F. (2021). Evaluating User Retention in Nigerian E-Commerce Interfaces. *African Journal of ICT and Design Studies*, 6(1), 44–58.
- Afolabi, R. (2021). Visual Illiteracy in Nigerian App Design: Implications for User Engagement. *Design Discourse West Africa*, 3(2), 21–34.
- Anozie, A., & Ayodele, D. (2022). Symbols, Patterns, and Digital Aesthetics: A Nigerian Perspective. *Visual Culture in Africa*, 4(3), 78–91.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Chukwu, B., & Balogun, T. (2022). Interface Evaluation of Nigerian University Portals. *Journal of African Web Development*, 2(1), 11–26.
- Creswell, J. W. (2013). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (3rd ed.). SAGE Publications.
- Ezeani, I., & Adeleye, M. (2022). Aesthetic Failures in Programmer-Led Interfaces. *Journal of Interactive Media & Design*, 5(4), 92–108.
- Ezenwa, O., & Nwankwo, K. (2021). Cultural Disconnects in Nigerian App Interfaces. *Nigerian Journal of Communication Arts*, 9(2), 39–52.
- Hall, E. T. (1976). *Beyond Culture*. Anchor Books.
- Marcus, A., & Gould, E. W. (2000). Crosscurrents: Cultural Dimensions and Global Web User-Interface Design. *Interactions*, 7(4), 32–46.
- Norman, D. A. (2004). *Emotional Design: Why We Love (or Hate) Everyday Things*. Basic Books.
- Oladejo, J. (2020). Programming Dominance in UI Design: The Nigerian Experience. *Nigerian Journal of Software Engineering*, 7(3), 57–70.
- Olaniyan, O., & Ugwu, N. (2021). The Role of Cultural Semiotics in UI Design. *Journal of African Media Semiotics*, 3(1), 66–79.
- Onuorah, M., & Adebayo, S. (2020). Visual Communication in Nigerian Digital Development. *Design Studies Nigeria*, 5(1), 101–118.
- Tufte, E. R. (1990). *Envisioning Information*. Graphics Press.

Uduma, E., & Okafor, L. (2019). User-Centered Design in African Tech Hubs. *Tech & Society Africa*, 2(2), 12–25.

Sylvester, R. O. (2025). Author-generated visual figures illustrating thematic UI/UX

insights. Unpublished research materials, Delta State University.

ZikoraPay Design Team. (2025). ZikoraPay app UI mockup for cultural integration. Internal design portfolio. Retrieved with permission.



Artificial Intelligence Integration in Strategic Decision-Making: A Managerial Perspective.

Fred Oghoba-Manager
Dean's Office
Faculty of Management Sciences
Delta State University, Abraka
email: fredoghobamanager@gmail.com
07031917514

Publication Date: 2025/06/30

Abstract

In the rapidly evolving business landscape, organisations are increasingly leveraging Artificial Intelligence (AI) to gain strategic advantages. This paper explores the integration of AI in strategic decision-making from a managerial perspective, with a focus on its role in enhancing strategic planning, forecasting and competitive positioning. Drawing on theoretical frameworks such as the Resource-Based View and Dynamic Capabilities Theory, the study investigates how AI technologies—such as predictive analytics, machine learning and natural language processing—support executives in making data-driven and forward-looking decisions. The paper synthesizes findings from existing literature and real-world case studies to demonstrate how AI enables firms to anticipate market trends, streamline operations and optimize resource allocation. Key managerial implications include the need for new competencies, leadership adaptability and ethical considerations in AI implementation. The study concludes with practical recommendations for managers seeking to harness AI for sustainable strategic advantage and proposes areas for future research in AI governance and change management.

Keywords: *Artificial Intelligence, Strategic Decision-Making, Strategic Planning, Business Forecasting, Competitive Advantage, Managerial Perspective*

Introduction

The integration of Artificial Intelligence (AI) into strategic decision-making has emerged as a transformative force in contemporary management practices. As global markets become more complex and data-driven, AI provides tools for enhanced data analysis, pattern recognition, and real-time forecasting—fundamentally reshaping how managers evaluate options and make strategic choices. According to Davenport and Miller (2023), AI is now a central driver of decision-making frameworks, particularly in domains such as operational efficiency, risk management,

and customer insights. The authors argue that AI's capabilities in augmenting managerial judgment are increasingly critical to competitive advantage. Their study, published in the *Harvard Business Review*, highlights the rise of AI-powered platforms that support predictive modeling and scenario planning as key enablers of agile strategy formulation. From a managerial perspective, integrating AI into strategic functions requires more than the deployment of new technologies—it demands a reorientation of leadership roles, organizational culture, and ethical

frameworks. Zhang, Liu, and Kumar (2024), in their article published in the *Journal of Strategic Management*, emphasize that successful AI adoption hinges on aligning machine intelligence with human insight. Their research underscores the importance of managerial adaptability, digital literacy, and cross-functional collaboration in leveraging AI tools effectively. As organisations move toward a hybrid decision-making model, where AI supports but does not replace human judgment, understanding how managers perceive and implement AI becomes essential. This study, therefore, aims to explore these managerial perspectives and assess how AI is redefining strategy-making processes in dynamic business environments.

Statement of the Problem

Despite the growing prevalence of Artificial Intelligence (AI) in corporate operations, many organisations still struggle to effectively integrate AI into strategic decision-making processes from a managerial standpoint. While AI promises enhanced analytical capabilities, faster decision cycles, and data-driven insights, the managerial challenges associated with its adoption—such as lack of digital skills, resistance to change, and ethical concerns—often limit its strategic impact. As noted by Iansiti and Lakhani (2023), although firms are investing heavily in AI technologies, few are able to translate these investments into sustainable strategic advantages due to gaps in leadership alignment and decision governance. Published in the *MIT Sloan Management Review*, their study reveals that successful AI integration requires more than tools—it requires strategic vision and redefined managerial roles, which are often lacking or misunderstood in practice. Furthermore, there is a limited understanding of how managers

perceive and navigate the integration of AI in their strategic roles, particularly in relation to balancing algorithmic recommendations with human judgment. According to Westerman and Bonnet (2024), whose research appeared in the *California Management Review*, many decision-makers either over-rely on AI outputs without sufficient critical evaluation or underutilise AI due to distrust or unfamiliarity. This disconnect creates a managerial paradox: while AI can enhance strategy, poor integration may lead to flawed decisions, increased operational risks, or underperformance. The lack of empirical studies that specifically explore the managerial perspective—beyond technical implementation—highlights a critical gap in the literature. This study seeks to address this gap by investigating how managers interpret, adopt, and manage AI technologies within the context of strategic decision-making.

Objective of the Study

To examine the extent to which artificial intelligence is being integrated into strategic decision-making processes by managers in contemporary organisations.

To explore managers' perceptions, attitudes, and readiness toward the adoption and use of AI technologies in strategic planning and execution.

To identify the challenges and barriers managers face in aligning AI tools with organizational goals and strategic outcomes.

To assess the impact of AI integration on the quality, speed, and effectiveness of strategic decisions from a managerial standpoint.

Research Hypotheses

1. **H₀₁:** There is no significant relationship between the level of AI integration and the effectiveness of strategic decision-making in organisations.

2. **H₀₂:** Managers' perceptions and attitudes toward AI have no significant influence on their willingness to adopt AI in strategic decision-making.
3. **H₀₃:** Organizational barriers such as lack of digital skills and resistance to change do not significantly affect the integration of AI into strategic decision-making.
4. **H₀₄:** The use of AI in strategic decision-making does not significantly improve decision-making speed and quality.

Scope and Relevance of the Research

This study focuses on the integration of Artificial Intelligence (AI) into strategic decision-making processes, specifically from the viewpoint of managerial roles within contemporary organisations. The research is limited to analyzing how managers perceive, adopt, and implement AI technologies in shaping long-term strategies, resource allocation, risk assessment, and market positioning. The study will explore a range of industries but with particular attention to knowledge-intensive and technology-driven sectors where AI adoption is most pronounced. It will examine variables such as AI readiness, organizational culture, managerial competencies, and decision-making outcomes. Both qualitative and quantitative data will be used to assess managerial perspectives and organizational experiences with AI integration.

The relevance of this research lies in its timely response to the rapid digital transformation affecting businesses globally. As AI continues to reshape traditional decision-making structures, understanding the managerial dimension becomes crucial for successful implementation. The findings will provide insights for business leaders, policymakers, and technology

developers seeking to optimize AI strategies and frameworks. Additionally, this study fills a gap in the existing literature by highlighting not just the technical, but also the human and organizational factors that influence AI-driven strategic decisions. By doing so, it contributes to the development of more adaptive, intelligent, and future-ready organisations.

Literature Review Conceptual Review

Artificial Intelligence (AI) refers to computer systems that can perform tasks normally requiring human intelligence, such as learning, reasoning, problem-solving, and decision-making. Within managerial contexts, AI includes technologies like machine learning, natural language processing, and predictive analytics that help leaders interpret complex data and simulate strategic scenarios. As the volume and complexity of data increase, AI serves as a powerful enabler of decision support systems, making it possible for managers to make faster and more informed choices. According to Jarrahi (2023) in *Decision Support Systems*, AI acts not as a substitute for managerial judgment, but as an "intelligence amplifier"—enhancing the human capacity to detect patterns, forecast outcomes, and explore alternatives in uncertain environments.

Strategic decision-making is a high-level organizational function involving long-term planning, competitive analysis, and resource deployment under conditions of uncertainty. Traditionally dependent on executive intuition and experience, this process is being reshaped by AI-driven insights and data-centric methodologies. AI facilitates strategic decisions by identifying trends in real-time, modeling complex outcomes, and offering recommendations based on vast datasets. As highlighted by Seidel, Berente, and Sarker (2024) in the *Journal of*

Management Information Systems, the growing use of AI in strategy formulation is driving a shift in managerial roles—from authoritative decision-makers to interpreters and curators of AI-generated insights. This evolution calls for new skills such as digital literacy, ethical reasoning, and the ability to manage human-machine collaboration effectively.

The integration of AI into strategic decision-making also brings to light critical managerial and organizational considerations. Managers are not only tasked with implementing AI tools but must also ensure that these technologies align with the strategic goals, culture, and values of the organization. This includes addressing issues of data governance, accountability, and trust in algorithmic outputs. Westerman and Bonnet (2024), writing in the *California Management Review*, emphasize that many strategic failures in AI adoption result not from the technology itself but from a lack of managerial clarity and stakeholder alignment. Hence, the conceptualization of AI integration must consider organizational readiness, change management practices, and leadership engagement.

Moreover, the human-AI interaction within strategic contexts necessitates a balance between computational logic and human judgment. AI systems excel in optimizing decisions based on patterns and probabilities, but they may fall short in areas requiring empathy, contextual nuance, or ethical discernment. As Binns et al. (2023) point out in *AI & Society*, strategic decisions often involve complex trade-offs that cannot be resolved by algorithms alone. Therefore, the conceptual framework for AI integration must be grounded in the complementarity between machines and humans, where AI enhances but does not replace the human strategic role. This research aims to build upon these

conceptual foundations to explore how managers perceive, adapt to, and leverage AI in real-world strategic environments.

Theoretical Framework

This paper is anchored on two key theories that provide a foundation for understanding how managers adopt and integrate Artificial Intelligence (AI) into strategic decision-making processes: the **Technology-Organization-Environment (TOE) Framework** and the **Resource-Based View (RBV) of the Firm**.

The Technology-Organization-Environment (TOE) Framework, developed by Tornatzky and Fleischer (1990), explains how technological innovation is adopted within organisations by considering three critical contexts: technological, organizational, and environmental. Within this study, the TOE framework is applied to examine how the characteristics of AI technology (e.g., complexity, compatibility, and relative advantage), the internal organizational context (e.g., managerial capability, structure, and readiness), and external pressures (e.g., market dynamics and competitive forces) influence AI adoption and integration into strategic processes. This theory supports the idea that AI integration is not solely a technological decision but one shaped by broader managerial and environmental influences.

Complementing the TOE framework is the **Resource-Based View (RBV)**, which emphasizes the role of internal organizational resources and capabilities in achieving sustained competitive advantage (Barney, 1991). AI technologies, when effectively utilized, represent a strategic resource that can enhance analytical capabilities, decision-making speed, and innovation. From a managerial perspective, AI becomes a

valuable asset only when organisations possess the human capital, digital literacy, and strategic alignment necessary to leverage it. The RBV helps to frame AI not just as a technological tool but as a strategic enabler that contributes to organizational performance when supported by complementary managerial competencies and organizational processes.

Together, these theories provide a comprehensive lens through which to analyze how and why managers integrate AI into their strategic decision-making processes. The TOE framework offers insights into the adoption context, while the RBV explains how internal resources—particularly managerial skills—translate AI capabilities into strategic outcomes.

Empirical Review

Recent empirical studies have shown that Artificial Intelligence (AI) is rapidly transforming decision-making processes across industries, yet the success of integration varies widely depending on managerial factors. For instance, Davenport and Miller (2023), in their study published in *Harvard Business Review*, conducted case analyses across multiple firms and found that while AI tools improve the speed and efficiency of strategic decisions, their actual value is determined by the managers' ability to interpret and apply AI-generated insights. They noted that companies with proactive and digitally literate leadership teams reported stronger outcomes in areas such as market forecasting, supply chain optimization, and customer segmentation.

In a survey of over 400 business executives, Jarrahi (2023), in *Decision Support Systems*, explored the role of human-AI collaboration in strategic contexts. The study found that while AI excels in data processing and pattern recognition, managerial input remains

vital in interpreting contextual factors and ethical considerations. The research concluded that successful integration depends on building symbiotic relationships where AI augments rather than replaces human judgment. It also emphasized the importance of managerial training and organizational support to maximize AI's strategic impact.

A cross-industry study by Seidel, Berente, and Sarker (2024), published in the *Journal of Management Information Systems*, examined how AI is influencing strategic planning processes in large enterprises. Their research showed that firms that embedded AI into their strategic routines—such as scenario planning and risk analysis—experienced increased agility and competitiveness. However, they also found significant challenges, including resistance from mid-level managers, concerns about data reliability, and the complexity of AI tool implementation. These findings reinforce the need for strong leadership commitment and organizational change management.

Westerman and Bonnet (2024), writing in the *California Management Review*, provided empirical evidence on the importance of trust in AI tools for managerial adoption. Their study surveyed over 300 managers in North America and Europe and discovered that trust in algorithmic recommendations was positively correlated with the level of strategic reliance on AI. Managers who were more confident in the transparency and explainability of AI systems were more likely to incorporate these tools into strategic decision-making. This study also pointed out that perceived loss of control and fear of job displacement hindered adoption among some executive teams.

Another significant study by Chatterjee et al. (2023) in the *Journal of Business Research* assessed the impact of AI on strategic innovation in emerging markets.

Using data from firms in India and Nigeria, the authors found that AI integration significantly boosted innovation outcomes when combined with strong managerial capabilities and a supportive organizational culture. The study revealed that firms lacking in managerial readiness or with low digital maturity saw limited strategic benefits, underscoring the role of management as a critical enabler of successful AI utilization.

Finally, empirical work by Marabelli and Galliers (2023) in *Information Systems Journal* investigated the unintended consequences of AI adoption in strategic decision-making. Their longitudinal case study of a European telecommunications firm showed that while AI improved decision speed, it also led to overreliance on quantitative data and reduced stakeholder engagement in strategic discussions. This highlights the importance of balancing algorithmic efficiency with inclusive decision-making practices. Their findings stress the need for adaptive leadership that can navigate both the opportunities and ethical complexities posed by AI in strategy.

Methodology

Research Design

This study adopted a **descriptive survey research design** to investigate how managers perceive and integrate Artificial Intelligence (AI) in strategic decision-making processes within organisations. A descriptive survey is suitable for collecting quantifiable information from a defined population and enables researchers to observe, describe, and interpret the current trends and relationships without manipulating variables. This method was chosen based on its effectiveness in exploring organizational behavior and decision-making dynamics, as emphasized by Rai, Constantinides, and Sarker (2021) in *Information Systems Research*, who

noted its relevance in capturing managerial perspectives in evolving digital contexts.

The **population** of this study comprises middle and senior-level managers from medium to large organisations across various sectors (e.g., finance, technology, healthcare, and manufacturing). A **purposive sampling technique** was employed to ensure that only managers who are actively involved in strategic decision-making and have exposure to AI tools were included. Data was collected through a structured questionnaire distributed both physically and digitally. The questionnaire included closed-ended questions measured on a Likert scale and was designed to evaluate AI awareness, perceived usefulness, trust in AI systems, and AI adoption levels, consistent with constructs validated in recent empirical studies such as Westerman and Bonnet (2024) in the *California Management Review*.

For data analysis, both **descriptive and inferential statistical techniques** were employed. Descriptive statistics such as frequency counts, percentages, and mean scores were used to summarize the respondents' demographic information and general perceptions. Inferential methods such as **Chi-square tests and multiple regression analyses** were conducted to test the hypotheses and determine the strength of relationships between variables. This analytical framework aligns with Jarrahi's (2023) approach in *Decision Support Systems*, where AI's decision-support function was statistically measured against human perception and organizational outcomes.

Ethical considerations were strictly adhered to throughout the research process. Respondents were informed about the purpose of the study, assured of the confidentiality of their responses, and participation was entirely voluntary. The reliability of the instrument was

tested using Cronbach’s Alpha, and the validity was ensured through expert reviews and pilot testing. This comprehensive methodology allows the study to contribute to a nuanced understanding of how AI is reshaping managerial roles and strategic planning, as noted by Seidel, Berente, and Sarker (2024) in the *Journal of Management Information Systems*.

Data presentation and analysis

Data Presentation

This section includes four tables (1–8), analyzing responses from a sample of **250 managers** using descriptive statistics. The analysis is based on responses to the questionnaire items across the major sections: Demographics,

Awareness and Adoption of AI, Perception of AI Impact, and Managerial Challenges.

Data Presentation and Analysis

This chapter presents and analyzes the data collected from 250 managerial respondents across the banking and telecommunications industries in Nigeria. The analysis is structured according to the study objectives and is presented using descriptive statistics such as frequencies, percentages, and means. Four key tables summarize the demographic profile of respondents, awareness and adoption of AI, perception of AI impact on decision-making, and managerial challenges associated with AI integration.

Demographic Profile of Respondents

Variable	Category	Frequency	Percentage (%)
Gender	Male	145	58.0
	Female	105	42.0
Age Range	18–30	30	12.0
	31–40	90	36.0
	41–50	85	34.0
	51 and above	45	18.0
Industry	Banking	135	54.0
	Telecommunications	115	46.0
Position	Middle Manager	140	56.0
	Senior Manager	80	32.0
	Executive/Director	30	12.0

Source: Field Survey, 2025

Interpretation: Most respondents were male (58%) and aged between 31 and 50 years. Over half (54%) were from the banking sector, with the majority holding middle management positions.

Table 2:
Awareness and Adoption of AI in Strategic Decision-Making

Awareness and Adoption of AI	Statement	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Mean Score
1. I am aware of the use of AI in strategic decision-making.	112	95	28	10	5	4.2	
2. My organization has adopted AI technologies.	80	105	40	20	5	3.9	
3. I have received training on AI systems.	70	85	55	30	10	3.7	
4. AI is actively used in strategic decisions in my organization.	65	90	60	25	10	3.7	
5. Management encourages AI-driven innovation.	75	110	40	20	5	4.0	

Source: Questionnaire Data, 2025

Interpretation: Respondents demonstrated a high level of awareness of AI (mean = 4.2), and the use of AI in strategic decision-making is growing (mean = 3.7–4.0).

Table 3:
Perception of AI’s Impact on Strategic Decision-Making

Perceived Impact of AI on Decision-Making	Statement	Mean Score
AI enhances the quality of strategic decisions.	4.3	
AI improves decision-making speed.	4.1	
AI helps identify market trends.	4.2	
AI supports data-driven decisions.	4.4	
I trust AI for critical decision-making support.	3.8	

Source: Computed from Respondents’ Ratings, 2025

Interpretation: Respondents largely agree that AI has a positive impact on decision-making quality, speed, and trend detection. However, there is slightly lower trust in AI when it comes to critical decisions.

**Table 4:
Managerial Challenges in AI Integration**

Challenges to AI Integration	Statement	Mean Score
Lack of technical knowledge among staff.	4.0	
Resistance to change from employees.	3.8	
High cost of AI integration.	4.2	
Ethical concerns surrounding AI use.	3.7	
Inadequate managerial training.	4.1	

Source: Authors' Fieldwork Analysis, 2025

Interpretation: The greatest challenges to AI integration are the **cost of implementation** and **lack of training**. Ethical concerns and resistance to change are also significant but slightly less emphasized.

Hypothesis Two

H₀₂: There is no significant effect of AI adoption on the quality of strategic decision-making.

Table 5: Chi-Square Test – Awareness vs. AI Integration

Variable Category	Observed Frequency (O)	Expected Frequency (E)
High Awareness & High Integration	90	75
High Awareness & Low Integration	30	45
Moderate Awareness & High Integration	40	35
Moderate Awareness & Low Integration	25	30
Low Awareness & Low Integration	65	65

Source: Field Survey, 2025

Chi-square (χ^2) = 19.62, df = 3, p = 0.0002

Interpretation: The Chi-square test reveals a significant association ($p < 0.05$) between awareness level and integration of AI into strategic decision-making. Managers with higher awareness are more likely to integrate AI tools effectively.

Note: The frequencies are derived from responses obtained through a structured questionnaire administered to 300 managerial staff across sectors.

Interpretation:

Since the **p-value = 0.002 < 0.05**, the result is statistically significant. This means that there is a significant relationship between the level of awareness of AI and its integration in strategic decision-making among managers.

Hypothesis Three

H₀₃: There is no significant relationship between managerial perception of AI and trust in AI-based decisions.

Table 6: Regression Analysis – AI Adoption and Decision Quality

Model	Unstandardized Coefficient (B)	Standard Error	Standardized Beta (β)	t-value	Sig. (p)
(Constant)	1.872	0.412	–	4.544	0.000
AI Adoption	0.652	0.085	0.719	7.670	0.000

Source: Field Survey, 2025

Model Summary:

R = 0.719

R² = 0.517

Adjusted R² = 0.513

F(1, 298) = 58.85, p < 0.001

Interpretation:

The regression analysis shows a strong, positive, and statistically significant relationship between AI adoption and the quality of strategic decision-making (β = 0.719, p < 0.001). This means that as the level of AI adoption increases, the perceived quality of decisions made by managers also increases. The model

explains approximately 51.7% of the variance in decision quality.

This aligns with findings from **Davenport & Miller (2023)** in *Harvard Business Review*, who noted that AI tools enhance managerial performance by enabling more consistent and data-informed decisions.

Table 7:

Chi-Square Test – Perception vs. Trust
Pearson Chi-square (χ ²) = 9.824
df = 3
p-value = 0.021

Source: Field Survey Computation, 2025

Interpretation: Since the p-value is less than 0.05, we reject the null hypothesis. This implies a significant relationship between perception and trust in AI-based decision-making.

7: Chi-Square Test – Perception vs. Trust in AI-Based Decisions

This chi-square test examines the relationship between managers’ **perception** of AI and their **trust** in AI-driven strategic decisions.

Source: Field Survey Computation, 2025

Contingency Table

Perception of AI	High Trust	Low Trust
Positive	85	30
Neutral	45	35
Negative	20	35
Total	150	100

Chi-Square Test Results

Statistic	Value
Pearson Chi-square (χ ²)	9.824
Degrees of Freedom (df)	2
p-value	0.021
Significance Level (α)	0.05

Interpretation:

Since the **p-value = 0.021 < 0.05**, we **reject the null hypothesis**. This indicates a **significant relationship** between how managers perceive AI and how much they trust AI to support or drive strategic decisions. Managers with a more positive perception of AI tend to show higher levels of trust in AI-driven outcomes.

Hypothesis Four

H₀₄: There is no significant effect of managerial training on the successful

integration of AI in strategic decision-making.

Table 8:

Regression – Training vs. AI Integration
R = 0.59 R ² = 0.348
F(1, 248) = 20.34 p = 0.000
β (Training) = 0.62 t = 4.51 p = 0.000

Source: SPSS Output from Primary Data Analysis, 2025

Interpretation: Managerial training significantly influences successful AI integration. Increased training enhances the effectiveness of AI implementation in strategy formulation.

8: Regression – Managerial Training and AI Integration

This regression analysis evaluates whether **managerial training** significantly influences the **successful integration of artificial intelligence** in strategic decision-making processes.

Coefficients

Variable	Unstandardised B	Std. Error	Standardized Beta	t	Sig. (p-value)
(Constant)	1.95	0.27	—	7.22	0.000
Managerial Training	0.62	0.14	0.59	4.51	0.000

Source: SPSS Output from Primary Data Analysis, 2025

Interpretation:

The regression model shows that **managerial training** has a significant and positive effect on AI integration ($p < 0.05$). The R^2 value of **0.348** means that training explains about **34.8%** of the variation in AI integration success. A unit increase in training leads to a **0.62 unit increase** in the effectiveness of AI implementation in strategic decisions.

Discussion of Findings

The findings from this study reveal a significant and positive relationship between artificial intelligence (AI) awareness, training, adoption, and strategic decision-making among managers. The regression analyses demonstrate that managerial training and AI adoption significantly predict successful AI integration and improved decision quality. This supports prior research by Shrestha et al. (2021), who emphasized the need for organizational learning and technical preparedness in effectively integrating AI systems into strategic functions (*MIS Quarterly Executive*). Additionally, the statistically significant relationship between perception and trust aligns with the work of Dwivedi et al. (2023), who concluded that managers' attitudes toward AI impact their willingness to delegate high-stakes decisions to AI systems (*Journal of Business Research*). Moreover, the chi-square results suggest that managers with greater awareness and positive perceptions of AI are more likely to integrate AI tools into their decision processes confidently. These findings reinforce the conclusions of Wamba-Taguimdje et al. (2020), who found that cognitive readiness and organizational culture heavily influence AI adoption in strategic contexts (*Technological Forecasting and Social Change*). The results also highlight the importance of targeted AI training programs, as training was found to have a direct effect on successful integration. This echoes the arguments presented by Rai et al. (2021) in *Information Systems Research*, where they

stressed that AI initiatives must be supported by capacity-building for decision-makers to yield meaningful outcomes. Overall, the study

contributes to a growing body of literature affirming that AI integration is not solely a technological issue but a strategic and managerial one.

Conclusion

This study concludes that the integration of artificial intelligence (AI) into strategic decision-making is both feasible and impactful, provided that certain managerial and organizational conditions are met. Key findings reveal that awareness, training, perception, and adoption of AI tools significantly influence their successful application in strategic contexts. These results are consistent with recent empirical evidence by Dwivedi et al. (2023) in the *Journal of Business Research*, which emphasized that AI's strategic value is realized when aligned with informed leadership and a culture of trust in machine-supported decision-making. Similarly, Shrestha et al. (2021), writing in *MIS Quarterly Executive*, argued that organizational structure and decision authority must evolve to accommodate AI-driven insights, reinforcing the strategic role of AI integration.

Moreover, the research underscores the critical importance of managerial training in enhancing AI assimilation and improving decision quality. The regression analysis confirmed that targeted upskilling significantly predicts better AI integration outcomes, a finding supported by Rai et al. (2021) in *Information Systems Research*. This indicates that beyond technological adoption, managerial competence and mindset play pivotal roles in leveraging AI effectively. In sum, the integration of AI into strategic decision-making is not merely a technological upgrade but a strategic transformation that demands readiness at multiple organisational levels—including training, perception, and trust in AI systems.

Recommendations

Recommendations from the findings are as follows:

To ensure successful adoption of artificial intelligence in strategic decision-making, organizations must **strengthen managerial training and capacity building** by equipping managers with both the technical skills and strategic insights necessary to effectively interpret and apply AI-generated outputs. Continuous professional development is key to maximizing the value AI brings to leadership functions.

Furthermore, it is essential for companies to **develop clear AI integration strategies** that align with overall business objectives. This involves setting specific goals, selecting appropriate technologies, and identifying areas where AI can deliver the greatest decision-making support.

To foster user acceptance, organizations must **promote trust and transparency in AI systems**. Involving managers in the design and testing of AI tools, while clearly defining the roles of humans versus machines, helps build confidence and enhances accountability in AI-supported processes.

Lastly, a successful transformation requires cultivating **an AI-ready organisational culture** that supports innovation, collaboration, and continuous learning. Monitoring and evaluating AI-driven decisions with measurable indicators ensures ongoing improvement and alignment with strategic goals, reinforcing the long-term value of AI in management.

References

- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
<https://doi.org/10.1177/014920639101700108>
- Binns, R., Veale, M., & Nissenbaum, H. (2023). Human judgment in algorithmic decision-making: Concepts, tensions, and implications.

AI & Society, 38, 715–730.

<https://doi.org/10.1007/s00146-022-01413-9>

- Chatterjee, S., Rana, N. P., Tamilmani, K., & Sharma, A. (2023). Impact of artificial intelligence on strategic innovation in emerging markets. *Journal of Business Research*, 158, 113670.
<https://doi.org/10.1016/j.jbusres.2023.113670>
- Davenport, T. H., & Miller, M. (2023). How AI is changing the role of the manager. *Harvard Business Review*.
<https://hbr.org/2023/06/how-ai-is-changing-the-role-of-the-manager>
- Iansiti, M., & Lakhani, K. R. (2023). The strategic potential of AI: Leadership imperatives for the future. *MIT Sloan Management Review*, 64(3), 22–31.
<https://sloanreview.mit.edu/article/the-strategic-potential-of-ai>
- Jarrahi, M. H. (2023). Artificial intelligence and the future of work: Human–AI symbiosis in decision making. *Decision Support Systems*, 167, 113862.
<https://doi.org/10.1016/j.dss.2023.113862>
- Marabelli, M., & Galliers, R. D. (2023). AI, strategic decision-making and unintended consequences: A case-based perspective. *Information Systems Journal*, 33(2), 289–310.
<https://doi.org/10.1111/isj.12345>
- Rai, A., Constantinides, P., & Sarker, S. (2021). Next-generation digital platforms: Toward human–AI hybrids. *Information Systems Research*, 32(2), 229–247.
<https://doi.org/10.1287/isre.2021.1000>
- Seidel, S., Berente, N., & Sarker, S. (2024). Rethinking strategy in the age of AI: Implications for managers and information systems research. *Journal of Management*

- Information Systems, 41(1), 7–34
<https://doi.org/10.1080/07421222.2024.11728864>
- Shrestha, Y. R., Ben-Menahem, S. M., & von Krogh, G. (2021). Organizational decision-making structures in the age of artificial intelligence. *MIS Quarterly Executive*, 20(3), 199–213.
- Tornatzky, L. G., & Fleischer, M. (1990). *The processes of technological innovation*. Lexington Books.
- Wanko, C. E. (2020). Influence of artificial intelligence (AI) on firm performance: The business value of AI-based transformation projects. *Technological Forecasting and Social Change*, 160, 120249.
<https://doi.org/10.1016/j.techfore.2020.120249>
- Westerman, G., & Bonnet, D. (2024). *Trust and judgment in AI-augmented strategy*. California Management Review, 66(1), 45–60.
<https://journals.sagepub.com/doi/10.1177/00081256231196748>
- Williams, M. D. (2023). Artificial intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *Journal of Business Research*, 163, 113850.
<https://doi.org/10.1016/j.jbusres.2023.113850>
- Zhang, Y., Liu, H., & Kumar, A. (2024). Strategic decision-making in the age of AI: A managerial framework. *Journal of Strategic Management*, 45(2), 133–151.
<https://doi.org/10.1002/jsm.3219>



Digital marketing and consumer preferences: Focus on insurance products marketing in Nigeria

¹Mgbomene, Chukunalu (PhD)

²Dim, Henry C. (PhD)

³Okere, Marcel C. (PhD)

¹Dept. of Economics, Delta State University, Abraka

^{2&3}Dept. of Insurance & Actuarial Science, Imo State University, Owerri Nigeria

email: chukunalum@delsu.edu.ng

Publication Date: 2025/06/30

Abstract

Traditional marketing has been overtaken by digital marketing in recent times. There is renaissance in digital marketing occasioned by social media thus, expectations lie on insurance marketers to leverage on these huge potentials to deliver insurance services to the public via social media platforms. This research work focused on digital marketing and insurance products' marketing in Nigeria. Specifically, the following digital marketing platforms formed the objectives of the study: Whatsapp, Facebook, Instagram and X (Twitter). Sample was drawn from selected commercial hubs in Nigeria (Lagos, Abuja, Portharcourt and Asaba). Sample size was determined purposively based on availability of the participant as at the time of the research. The instrument for data collection was online survey structured in a 4-point Likert scale format. The findings revealed that Whatsapp and Facebook platforms increased insurance preferences. However, only Whatsapp increased consumer preferences significantly while Instagram and X exerted negative effects on insurance preferences. The conclusion was that Whatsapp is the most prominent platform that consumers of insurance products and services prefer in terms of communication and reputation of the platform. Updating consumers and even non-customers about insurance policies through Whatsapp platform coupled with intensification of Facebook marketing and use of other social media platforms to enhance visibility of insurance products were recommended.

Key words: *Consumer Preferences, Facebook, Insurance Marketing, Insurance Patronage, Social Media.*

Introduction

The popularity of digital marketing as a business tool has significantly contributed to the growth of most institutions both small and large (Gnidko, 2021). This has been influenced by the new developments in technologically advanced tools and technologies like computers and hand-held gadgets like tablets and smart phones, which have improved social interactions through the different social networking sites (Denisova *et al.*, 2019). These social networking sites help business to facilitate sale transactions, advertising, promotion,

customers' feedback and reviews from clients (Elisashvili, 2021). The social media platforms such as Facebook, Instagram, Twitter, etc. provide good avenues for insurance companies to engage their target market and have a better understanding of their needs (Kwashie, 2021). The concept of understanding the needs of customers is essentially important in the insurance sector due to the high personalization of insurance products. Therefore, once the insurance firms understand their target audience they will be able to develop compelling and high quality products that best suit the needs of

their customers (Delafrooz et al., 2017; Mohseni, Faezy Razi & Khoshnevis, 2021). The history of digital marketing in insurance transaction in Nigeria is not far from tracing. According to Ekugo (2022), the first indigenous insurance company that recorded online platform for buying of insurance and claims payment was Cornerstone Insurance and this was in 2016 which awarded the company the 'best use of technology insurance company' same year. AutoGenius, an insurTech founded in 2014 to provide Auto Insurance and Insurance Brokerage services digitally partnered with some insurance companies: AIICO insurance, Custodian and Allied insurance, Leadway Assurance, NEM insurance and Royal Exchange to provide auto insurance to Nigerians (Ekugo, 2022). Cassava, another insurTech registered with NAICOM offers both General and Life Assurance services and pays claims within 48 hours (Adejumo and Tijani, 2022). The Nigeria Insurance Association (NIA) (2017) attributed the continued sub-optimal performance of Nigerian Insurance firms to low patronage, poor implementation of digital marketing strategies among others. The velocity of technological development poses new problems for insurance buyers and administrators because prior technologies are outdated (Chen, Neubaum, Reilly, and Lynn, 2015).

Statement of the Problem

The rationale for this study is not far-fetched. Traditional marketing is fast fading out and digital marketing has become the talk of every business enterprise and insurance industry is not left out. As at January 2024, Nigeria recorded 36.75 million social media users which equates to 16.2% of the country's population (Statista, 2024a). Whatsapp, Facebook, Instagram, TikTok and X (Twitter) are the most visited social media applications in Nigeria as at third quarter of 2023 (Statista, 2024b). With a population of over 200 million people, Nigeria has a large reservoir of potential insurance consumers in Sub-Saharan Africa.

Thus, the curiosity of the researchers on this topic is that with the increasing digital presence in Nigeria, championed by various social media platforms, there is need to carry out a research on how consumer preferences is affected or influenced by digital marketing with particular emphasis on the top social media platforms. It is general knowledge that a developed insurance market in Nigeria will have spill-over effect on the insurance market of other countries in Sub-Saharan Africa. Thus, baring knowledge of social media effect on insurance penetration in Nigeria will boost policies that will enhance development of the insurance industry not only in Nigeria but the entire Sub-Saharan African region. Also, preliminary search for literature on this topic from various academic databases such as Google scholar, Pubmed, Research Gate, ScienceDirect, etc., reveals that a great number of recent literature were carried out in Asian countries (Pareek, Dua and Mittal, 2022; Kajwang, 2022; Jayanthi and Kumar, 2024; Priya, 2023, etc.). Just about a handful of literature were carried out in Nigeria (Adejumo and Tijani, 2022; Kadri and balogun, 2022). It becomes apparent and a matter of urgent policy implication to go ahead with this research as it offers a veritable ground to understand the digital marketing space in Nigeria and how consumer preferences for insurance products can be understood from the angle of top social media marketing platforms.

Objective of the Study

The main objective of this study is to investigate digital marketing and how it affects consumer preferences with particular focus on insurance marketing and patronage in Nigeria. The specific objectives of this research are to:

1. ascertain the extent to which Whatsapp marketing affect insurance consumers' preferences in Nigeria;
2. analyze the effect of Facebook marketing on insurance consumers' preferences;

3. determine the effect of Instagram advertising on insurance consumers' preferences;
4. determine the extent to which insurance consumers preferences change given the effect of advertising via X (Twitter) platform.

Research Hypotheses

As an empirical research, this study formulates five hypotheses from the specific objectives which are to be tested for validity at 5% level of significance. The hypotheses are stated in their null forms as follows:

- H₀₁: There is no significant relationship between Whatsapp marketing and insurance consumers' preferences in Nigeria.
- H₀₂: There is no significant relationship between Facebook marketing and insurance consumers' preferences.
- H₀₃: Instagram advertising has no significant relationship with insurance consumers' preferences.
- H₀₄: There is no significant relationship between X (Twitter) platform and insurance consumers' preferences.

Scope and Relevance of the Research

The scope of this research is adult population in selected commercial cities in Nigeria (Lagos, Abuja, Port Harcourt and Asaba). This scope is considered relevant in this post covid-19 period when Nigeria is struggling on all economic fronts to enhance development that is all encompassing. The field of insurance is relevant to overall development given the fact that it is the industry that ensures the continued survival of every other industry. With the place of Nigeria as the most populous country in Sub-Saharan Africa (SSA), the country boasts of high digital media followership hence insurance business should target

digital platforms in order to increase insurance penetration.

Literature Review

Conceptual Review

The Digital Marketing Institute (DMI, 2023) defines digital marketing as the use of technology to create integrated, targeted, and measurable communications that help to gain and keep customers while building deeper relationships with them. Rizal (2017) noted that digital marketing includes direct marketing and interactive marketing. Direct marketing treats customers as individuals and defines them as not only their character but also their behavior pattern. Interactive marketing functions to overcome individuals and can collect and remember individual responses. According to Panda and Mishra (2021), digital marketing tools such as social media, web solutions, mobile phone marketing and email marketing create a competitive advantage, specifically in regard to the fact that clients will prefer those firms that have become innovative. However, the focus of this research is on social media as a digital marketing tool. Social media marketing is the adoption of social media platforms to market a product or service and raise its exposure on the Internet (Becker, Nobre, and Kanabar, 2013). Ehiogu and Dim (2021) asserted that employees' of insurance companies find digital platforms as the best form of advancing insurance service delivery. Different communication strategies, summarized in figure 1 below, are considered as preferable on particular social media networks. Facebook, Twitter, Instagram, Whatsapp, TikTok, YouTube, etc. have presented organizations with numerous chances for both social and business contacts (Gilmore *et al.*, 2021).



Fig 1: *Social media platforms*

Facebook is well-known for its sophisticated platform for managing client relationships (Popp *et al.*, 2016). Organizations such as insurance companies may utilize Facebook to create a communication strategy for marketable brands that includes an integrated marketing communications plan (Mangold & Faulds, 2019). Because of the unfettered flow of information, Facebook can help insurance companies contact a broader range of people (Michahelles & Cvijikj, 2013). Whatsapp is another social media platform which enables users to create personalized messages to clients, run advertisements tailored to the needs of clients and follow up marketing leads (Mangold & Faulds, 2019). In addition, Instagram is a social media platform for exchanging images and videos (Muñoz & Towner, 2017). According to Neti (2021), Instagram has helped many organizations engage with potential clients on a more personal basis. Several businesses utilize Instagram to communicate with a new generation of virtual consumers, increasing their reach across marketing channels and recruiting certain types of customers who demonstrate specific behaviors (Gbandi and Iyamu, 2022).

Twitter (X) is well-known for its capacity to deliver brand messaging and prompt customer replies in real time (Culotta & Cutler, 2016). Twitter (X) is a micro blogging and social networking website where individuals and organizations may connect by posting 140-character status updates (Grewal & Levy, 2020). The process of posting contents on Twitter (X) is

called tweeting and tweeting helps organizations to build new business lines, promote and support existing products, and engage in buzz marketing, which is simply an extension of conventional word-of-mouth communication by letting consumers to communicate with one another (Mangold & Faulds, 2019). A more recent social media platform is TikTok which has gained popularity amongst many young Nigerians (Kadri and Balogun, 2022). However, the scope of this study does not include TikTok since its relevance is mostly for entertainment purposes with little emphasis on business aspect of the application.

Theoretical Framework

There are many theories that explain how insurance consumers change their preferences. The main theory in focus here is the Resource-Based View (RBV) theory by Barney (1984). The theory holds that companies have some resources which are internal to them and which they can utilize in order to acquire competitive advantage and achieve better long-term performance. The company's resource-based approach focuses on decisions on the acquisition and application of tangible and intangible resources in the company (Darroch, 2005). Resources in an organization can be virtual resources, financial or physical resources as noted by Mgbomene (2025). Insurance companies in this instance have physical bundles of resources, comprising managerial skills, unique products and a ready growing market to unleash their potentials. The use of social media is one internal resource

which an insurance company can utilize by way of creating dedicated channels, social pages for educational purposes and creating a lasting impression in the minds of people. When an insurance company leverages on social media to change consumer preferences in their favor, we say that they are making efficient use of their internal resources which is the main tenet of the resource based view.

Empirical Review

Empirical research linking digital marketing and insurance consumer preferences in Nigeria have not been many. Adejumo and Tijani (2022) evaluated the impact of digitalization technologies on the insurance industry in Nigeria. Using primary data from questionnaires administered on 70 respondents across the six Geo-Political zones in Nigeria, they found that almost every insurance company in Nigeria has a digital platform and that Nigerian Insurance companies as well as the NAICOM had transformed more than 40% of their services into digital technology. Kadri and Balogun (2022) investigated the effect of digital marketing tools (MC) on the performance of selected Insurance companies in Lagos State, Nigeria. A sample of 598 management staffs of the selected Insurance companies in the State revealed a positive and significant effect of digital marketing tools (social media, web solutions and mobile phone marketing) on organizational performance of selected Insurance companies in Lagos State, Nigeria.

Kajwang (2022) utilized the systematic literature review and studied the role of social media in the insurance industry in Kenya. The review of the different studies revealed that the social media provides a variety of platforms that can help insurance firms facilitate the sale of their products, improve their customers' interaction and build their brand reputation. Pareek, Dua and Mittal (2022) studied consumer behaviour towards social media advertising in India. According to the survey results, people have a positive mindset toward

credible commercials about insurance products via social media advertisements.

The study of Jayanthi and Kumar (2024) examined the impact of social media marketing in insurance sales in India. Their questionnaire analysis revealed that social media marketing presents a paradigm shift for the insurance industry and that by embracing this new era of communication, insurance companies can break free from traditional limitations and connect with consumers in a more meaningful and impactful way. Brucker (2022) analyzed the impact of social media marketing on small independent brokerages of property and casualty insurance. Systematic literature review with in-depth interviews of small business owners in the insurance industry was the method adopted in the research. Findings suggested that social media marketing can create the value needed to gain and retain customers in the insurance industry. Priya (2023) focused on the usage of social media marketing on insurance business performance in India. They found that social media is the new normal for advertisements for the insurance industry.

Evidently, to the best of the researchers' knowledge, a comprehensive study of the most followed social media platforms in Nigeria and how they change insuring public preference for insurance products has not been carried out by any previous researcher both in Nigeria and outside of Nigeria. This creates a gap in insurance literature which this present study intends to fill. This will help towards advancing policies that will ensure development of insurance industry in Nigeria and by extension guide other insurance industries in Sub-Saharan Africa.

Methodology

This study adopts the quantitative survey method with the use of primary data. This design encompasses the administration of questionnaire to a sample group, coding of the questionnaire and interpretation of the data gathered. There is little bias involved because the data are not manipulated by the

researchers since they are collected electronically and exported into SPSS software for analysis. The data for this study were collected over a three month period from January 2025 through March 2025. The sample is drawn from selected commercial hubs in Nigeria comprising residents of Lagos, Abuja, Portharcourt and Asaba. Due to the technical nature of the survey, the non-probability sampling is adopted and the sampling technique selected is purposive sampling technique. Sekaran (2013) proposed that in a non-probability sampling method, a sample size larger than 30 but less than 500 is appropriate for a research. Given this rule of thumb by Sekaran (2013), this study selects a sample size of 361 so as to be able to manage the data effectively.

The inclusion criteria include: the participant should be resident in the selected State, have an insurance policy to buttress their knowledge of insurance and should have at least three social media accounts. Respondents who do not belong to any of the three criteria were expunged from the research.

The questionnaire was designed using Google form and administered to the participants through their social media accounts. The 4-point Likert scale was used in rating the responses and the scale is rated as follows: Strongly Agree (4 points), Agree (3 points), Strongly Disagree (2 points) and Disagree (1 point). Statistical Package for Social Sciences (SPSS) version 21 was the main analytical software used. Data analysis was done using Descriptive Statistics and Inferential Statistics. The descriptive statistics include mean and percentage analysis while Multiple Regression was used as the Inferential Statistics in estimating the model and testing the hypotheses (Egbulonu, 2007). The model that was estimated is a linear model of the form:

$$Y = f(X's) \quad [1]$$

Where Y is the dependent variable and X's is the set of independent variables. By expanding the right hand side, we have:

$$Y = f(X_1, X_2, X_3, X_4) \quad [2]$$

Where: Y = Insurance consumer preferences, X₁ = Whatsapp marketing, X₂ = Facebook marketing, X₃ = Instagram marketing, X₄ = X or Twitter marketing.

Data Presentation and Analysis

Data Presentation

The rating scale adopted is modified from the rating scale of Khan and Jan (2019) and the responses are summarized in Table 1 below:

Table 1: Responses on various social media platforms

a. Whatsapp Marketing		SA	AG	SD	DA	Mean	Remark
1.	Communication via whatsapp with my insurance provider influences my choice.	113 (31.3)	70 (19.4)	121 (33.5)	57 (15.8)	2.66	Positive
2.	Whatsapp has more reputation than other SM platforms.	80 (22.2)	230 (63.7)	30 (8.3)	21 (5.8)	3.02	Positive
3.	I have security concerns discussing insurance via Whatsapp.	310 (85.9)	43 (11.9)	7 (1.9)	1 (0.3)	3.83	Positive
b. Facebook Marketing		SA	AG	SD	DA	Mean	Remark
4.	Facebook is open and easy to use.	205 (56.8)	121 (33.5)	32 (8.9)	3 (0.8)	3.46	Positive
5.	I have purchased insurance policy from ads I saw on Facebook.	41 (11.4)	33 (9.1)	258 (71.5)	29 (8.0)	2.24	Negative
6.	Mixing contents with information about insurance on Facebook attracts my attention.	177 (49.0)	144 (39.9)	32 (8.9)	8 (2.2)	3.36	Positive
c. Instagram Marketing		SA	AG	SD	DA	Mean	Remark
7.	I visit Instagram regularly.	221 (61.2)	56 (15.5)	33 (9.1)	51 (14.1)	3.24	Positive
8.	I skip adverts concerning insurance I see on Instagram.	21 (5.8)	10 (2.8)	128 (35.5)	202 (56.0)	1.58	Negative
9.	I have high potentials of seeing advertisements placed via Instagram handles.	284 (78.7)	51 (14.1)	20 (5.5)	6 (1.7)	3.70	Positive
d. X (Twitter) Marketing		SA	AG	SD	DA	Mean	Remark
10.	I visit X (Twitter) regularly	156 (43.2)	43 (11.9)	111 (30.7)	51 (14.1)	2.84	Positive
11.	Insurance companies have X(Twitter) presence	34 (9.4)	23 (6.4)	178 (49.3)	126 (34.9)	1.90	Negative
12.	Insurance enquiries are treated with speed via X	6 (1.7)	34 (9.4)	141 (39.1)	180 (49.9)	1.63	Negative

Source: *Online Survey (2024)*

Table 1 shows the responses on the various social media platforms as it relates with insurance products and services. The survey shows that the mean values for whatsapp marketing are all positive i.e. they are greater than 2.5 criterion mean. This implies that the respondents agreed to the statements on whatsapp marketing that whatsapp communication influences their choice (mean = 2.66), whatsapp has more reputation than other social media platforms

(mean = 3.02) and that they have security concerns discussing insurance via whatsapp (mean = 3.83). For Facebook marketing, 71.5% of the respondents strongly disagreed that they have purchased insurance policy from adverts they saw on Facebook (mean = 2.24 < 2.50). Also, the respondents opined that they do not skip adverts they see on Instagram (mean = 1.58). Interestingly, the survey shows that majority of Insurance companies do not have X(Twitter) presence

and that enquiries about insurance are not treated with speed via X(Twitter). Furthermore, Table 2 presents the responses on insurance consumer preferences in

Nigeria as adapted from Scholz, Meissner and Decker (2010).

Table 2: Responses on Consumer Preferences

f.	Consumer Preferences	SA	AG	SD	DA	Mean	Remark
13.	I prefer educational materials about insurance sent to me through social media channels.	196 (54.3)	150 (41.6)	12 (3.3)	3 (0.8)	3.49	Positive
14.	I prefer communicating with my dedicated financial advisor through social media channels.	200 (55.4)	126 (34.9)	5 (1.4)	30 (8.3)	3.37	Positive
15.	I prefer to see all my insurance transactions in one mobile application.	290 (80.3)	70 (19.4)	0 (0.0)	1 (0.3)	3.80	Positive
16.	Inquiries about all insurance matters should be made through social media for ease of response.	35 (9.7)	282 (78.1)	32 (8.9)	12 (3.3)	2.94	Positive
17.	Insurance companies should have a working chat bot to attend to customer enquiries.	250 (69.3)	11 (3.0)	0 (0.0)	0 (0.0)	2.86	Positive

Source: *Online Survey (2024)*

Excerpts from Table 2 shows that the respondents prefer educational materials about insurance to be sent to them through social media channels (mean = 3.49). Additionally, communication through social media, insurance transactions via mobile applications, inquiries about insurance, are all preferences of the respondents. Chat bot are also necessary for insurance companies

to have in their websites to enhance customer interactions.

Data Analysis

The analysis follows the conversion of the likert scale responses into numbers by way of aggregation in order to fit a time series regression analysis. This is justified based on the need to find the relationship between the set of independent variables and the dependent variable.

Table 3: Summary of the Ordinary Least Square Estimates

Variables	Coefficients	t-statistic	p-values	Decision
(Constant)	19.491	14.345*	0.000	
Whatsapp marketing	0.098	4.261*	0.002	Positive and significant
Facebook marketing	0.034	0.631	0.529	Positive but not significant
Instagram marketing	-0.062	-2.818*	0.035	Negative and significant
X(Twitter) marketing	-0.004	-0.069	0.945	Negative but not significant

F-statistic = 14.498 (*p-value* = 0.043)

R-squared = 0.787

Source: *Extracted from Statistical Package for Social Sciences (SPSS) Output*

According to information from Table 3, whatsapp marketing exert positive and significant effect on consumer preferences increasing consumer preferences by 0.098. This means that for every investment in whatsapp marketing by insurance companies, consumer preferences changes by 0.098 units and this is significant given the *p-value* of $0.002 < 0.05$. In like manner, Facebook marketing increases consumer preferences by 0.034 units but the increase was not significant given the *p-value* of $0.529 > 0.05$. Conversely, Instagram and X(Twitter) marketing showed negative effects on

consumer preferences as they have negative coefficients of -0.062 and -0.004 units respectively. In other words, consumer preferences decrease by 0.062 and 0.004 units when insurance companies adopt any of Instagram and X(Twitter) marketing platforms. This shows that the respondents do not have strong preference for Instagram and X (Twitter) marketing platforms for insurance products. The overall strength of the model is estimated at 78.7% meaning that the social media marketing platforms account for 78.7% of the changes in insurance consumers' preferences.

Table 4: Test of hypotheses

Hypothesis	t-statistic	p-values	Decision Rule
H ₀₁ : No significant relationship between Whatsapp marketing and insurance consumer preferences	4.261*	0.002	Reject the null hypothesis
H ₀₂ : There is no significant relationship between Facebook marketing and insurance consumer preferences.	0.631	0.529	Accept the null hypothesis
H ₀₃ : Instagram advertising has no significant relationship with insurance consumer preferences.	-2.818*	0.035	Reject the null hypothesis
H ₀₄ : There is no significant relationship between X (Twitter) platform and insurance consumers preferences	-0.069	0.945	Accept the null hypothesis

Source: *Extracted from Statistical Package for Social Sciences (SPSS) Output*

We reject hypothesis one and three i.e. H₀₁ and H₀₃ since their respective probability values (0.002 and 0.035) are less than 0.05 critical value. We therefore conclude that Whatsapp marketing and Instagram marketing have significant effects on insurance consumer preferences. However, while Whatsapp marketing significantly increased consumer preferences, Instagram significantly decreased consumer preferences for insurance products. The second and fourth null hypotheses (H₀₂ and H₀₄) are accepted since their probability values (0.529 and 0.945) are greater than 0.05 critical value. Therefore, we conclude that there is no significant relationship

between Facebook marketing, X (Twitter) marketing and insurance consumer preferences.

Discussion of Findings

The analysis revealed that Whatsapp and Facebook exerted positive effects on insurance consumer preferences. While the positive effect of Whatsapp marketing was significant, the positive effect of Facebook marketing was not significant. The implication of this is that there is high preference for marketing of insurance products through Whatsapp platform as it is the social media platform which the respondents mostly prefer in terms of

communication with insurance providers and in terms of strong reputation. Facebook also has easy use and access and can be used to advertise insurance products but its usage by insurance companies in Nigeria is very limited hence the non-significant effect it has on consumer preferences. The positive effect of these two social media platforms on insurance preferences corroborates the findings of Kajwang (2022), Adejumo and Tijani (2022) and Kadri and Balogun (2022) whose studies revealed a positive and significant effect of digital marketing tools on organizational performance of selected Insurance companies. While these studies linked social media marketing to organizational performance, this present research linked social media marketing to consumer preference but in both cases, social media exerted positive effect on both consumers and the companies.

Furthermore, findings revealed negative effects of Instagram and X (Twitter) marketing on insurance consumer preferences. Instagram marketing is direly affected as it significantly decreased consumer preferences for insurance products. Pareek, Dua and Mittal (2022) rightly asserted that people have a positive mindset toward credible commercials about insurance products via social media but the negative effect found in this study shows that insurance companies have not been using this particular social media platform to market their products. Jayanthi and Kumar (2024) advocated for insurance companies to break free from traditional limitations and connect with consumers in a more meaningful and impactful way via social media.

The study found that the top social media platforms in Nigeria (Whatsapp, Facebook, Instagram and X) jointly accounted for up to 78.7% of the changes in consumer preferences for insurance products. This shows that when insurance companies combine these social media platforms to

market their products, consumer preferences will be significantly tilted towards enhancing insurance patronage in Nigeria.

Conclusion

The conclusion from the study is that social media is a secure platform for insurance companies to market their products to the people as it gives them more visibility and penetration. Whatsapp is the most prominent platform that consumers of insurance products and services prefer in terms of communication and reputation of the platform. However, even though Facebook showed strong acceptance among insurance consumers, it did not significantly enhance their preferences. The study further concludes that other social media platforms (Instagram and X) inversely affected consumer preferences for insurance products. This implies low preference for these digital marketing platforms.

Recommendations

Recommendations emanating from the findings are outlined below:

Insurance companies should further enhance their social media presence by updating their consumers and even non-customers about insurance policies available to them through Whatsapp platform. Insurance companies can do this by creating Whatsapp channels to educate the public about their innovative products.

The use of Facebook to educate customers should be intensified so as to make it to have significant effect on consumer preferences. Facebook marketing is one that leaves a lasting impression in the minds of consumers and so insurance companies should be consistent on the use of Facebook advertisements

Instagram and X platforms should be used to reach out to all categories of the insuring public. Insurance education can be enhanced through the creation of educative videos to grow insurance patronage in Nigeria.

References

- Adejumo, A. W. & Tijani, A. R. (2022). Improving insurance operations in Nigeria through the digital technologies, *Archives of Business Research*, 10(11). 222-231.
- Becker, K., Nobre, H., & Kanabar, V. (2013). Monitoring and protecting the company and brand reputation on social network: When sites are not enough. *Media Journal* 15(2/3), 293–308
- Brucker, K. (2022). Social media marketing and insurance: an analysis of the impact of social media marketing on small independent brokerages of property and casualty insurance. *Portland State University Bachelor of Science Thesis* 1-39
- Culotta, A., & Cutler, J. (2016). Mining brand perceptions from twitter social networks. *Marketing Science*, 35(3), 343–362.
<https://doi.org/10.1287/mksc.2015.0968>
- Darroch, J. (2005). Knowledge management, innovation and firm performance. *Journal of Knowledge Management*, 9(3), 101-115.
- Delafrooz, N., Farokhbakht Foomani, A., & Khosravi, M. R. (2017). Specifying the social media usage among insurance companies, agents and clients (Case study: Iran Insurance Co.). *Journal of Business Management*, 9(2), 271-294.
- Denisova, I. P., Samoylova, K. N., Shirshov, V. Y., & Myzaev, M. Z. (2019). The digitalization features of the Russian social media market insurance service.
- Egbulonu, K. G. (2007). *Statistical Inference for Science and Business*. Owerri, Peace Publishers Inc.
- Ehiogu, C. P. & Dim, H. C. (2021). Employee-focused growth initiatives and insurance service delivery in Nigeria: A forecasted employee growth model (FEGM) approach, *Nigerian Academy of Management journal*, 16(1): 74-85
- Ekugo, N. (2022). The top 5 insurance companies in Nigeria by market capitalization, www.nairametrics.com
- Elisashvili, M. (2021). The impact of social media marketing on customer satisfaction and brand loyalty in the Georgian insurance industry, *Doctoral dissertation, Ilia State University* 93-101.
- Gbandi, E. C. & Iyamu, G. O. (2022). The effect of social media marketing on the growth of business: evidence from selected Small and Medium Enterprises (SMEs) in Benin City, Nigeria. *Journal of Enterprise and Development*, 4(1), 78-99
<https://journal.uinmataram.ac.id/index.php/jed>
- Gilmore, A., Carson, D., & Grant, K. (2021). SME marketing in practice. *Marketing Intelligence & Planning*, 19(1), 6–11.
<https://doi.org/10.1108/02634500110363583>
- Gnidko, K. (2021). Use of social media marketing by small businesses, *Baltic Journal of Management* 2(2), 33-45
- Grewal, D., & Levy, M. (2020). *Marketing* (Seventh edition). McGraw-Hill Education.
- Jayanthi, A. & Kumar, N. (2024). The impact of social media marketing in insurance sales. *International Journal of Research Publication and Reviews*, 5(6), 6954-6955 DOI: <https://doi.org/10.55248/gengpi.5.0624.1640>
- Kadri, A. I. & Balogun, L. A. (2022). Digital marketing tools and organizational performance of selected insurance firms in Lagos State, Nigeria, *International Journal of Scientific Research in Social Sciences & Management Studies* 6(1), 1-13

- Kajwang, B. (2022). The role of social media in the insurance industry in Kenya. *International Journal of Strategic Marketing Practice* 4(1), 1-11
- Khan, M. F. & Jan, A. (2019). A measure of social media marketing scale development and validation, *Jindal Journal of Business Research* 8(32), 1-17 DOI: 10.1177/2278682119850285
- Kwashie, G. E. (2021). An assessment of customer engagement with insurance companies on social media platforms, *Doctoral dissertation, Ghana Institute of Journalism* 111-145.
- Mangold, W. G., & Faulds, D. J. (2019). Social media: The new hybrid element of the promotion mix. *Business Horizons*, 52(4), 357–365. <https://doi.org/10.1016/j.bushor.2009.03.002>
- Michahelles, U. & Cvijikj, T. (2013). Does using the latest technologies impact new venture innovation? A contingency based view of institutional environments. *Journal of small Business Management*, 59(4), 1-35
- Mgbomene, C. (2025). Harnessing alternative transportation system for efficient food supply chain in Nigeria: Role of the blue economy, *Jalingo Journal of Social and Management Sciences*, 6(2): 65-78
- Mohseni, M., Faezy Razi, F., & Khoshnevis, M. (2021). Designing a business model for digital media based on creating a distinctive brand. *Journal of Business Management*, 13(3), 769-790.
- Muñoz, C. L., & Towner, T. L. (2017). The Image is the Message: Instagram Marketing and the 2016 Presidential Primary Season. *Journal of Political Marketing*, 16(3–4), 290–318. <https://doi.org/10.1080/15377857.2017.1334254>
- Neti, S. (2021). Social Media and its Role in Marketing. *International Journal of Enterprise Computing and Business Systems Ting and Business Systems* 1(2), 1–15.
- Panda, M. & Mishra, A. (2021). ‘Digital marketing’. *Telekomnica*, 1(11), pp. 1-8.
- Pareek, M., Dua, N. & Mittal, M. (2022). Consumer behaviour towards social media advertising: a comparative analysis of companies in the life insurance sector in India, *Academy of Marketing Studies Journal* 26(2), 1-19.
- Popp, B., Wilson, B., Horbel, C., & Woratschek, H. (2016). Relationship building through Facebook brand pages: The multifaceted roles of identification, satisfaction, and perceived relationship investment. *Journal of Strategic Marketing*, 24(3–4), 278–294. <https://doi.org/10.1080/0965254X.2015.1095226>
- Rizal, E. (2017). Digital marketing and business performance. *Journal of the Academy of Marketing Science*, 40(1), 102–119.
- Scholz, S. W., Meissner, M. & Decker, R. (2010). Measuring consumer preferences for complex products: A compositional approach based on paired comparisons, *Journal of Marketing Research* 47(4), 685-698
- Sekaran, U. (2013). *Research methods for business: A skill building approach*. John Wiley & Sons.
- Statista (2024a). Social media users in Nigeria, Available from www.statista.com/topics/10117/social-media-in-nigeria/#topicOverview
- Statista (2024b). Top 5 social media platforms in Nigeria, www.statista.com/statistics/1176101/leading-social-media-platforms-nigeria/

Wade, K. (2024). How to use TikTok for the insurance industry in 2024. *Staff Boom Publication*, 1-15

World Bank (2024). World development indicator, World Bank Statistics www.data.worldbank.org



Social Entrepreneurship and Percieved Social Entrepreneurship Intention among University Student

Ogbeta-Ogwu, Ese Mercy PhD

ogbetame@delsu.edu.ng

Department of Business Administration

Faculty of Management Sciences

Delta State University, Abraka

Publication Date: 2025/06/30

Abstract

The study examined social entrepreneurship and perceived social entrepreneurship intention among university student focusing on Dennis Osadebay University, Asaba and University of Delta Agbor (UNIDEL), Delta State. The specific objectives were to; evaluate the effect of emotional intelligence on social entrepreneurship intention among university student in Delta State and to determine the effect of self-efficacy on social entrepreneurial intention among university student in Delta State. A descriptive study design was used. The target population was two hundred and fifty nine (365) members of students involved in Dennis Osadebay University, Asaba and University of Delta Agbor (UNIDEL), Delta State. The sample of one hundred and fifty seven (191) participants were selected through simple random sampling technique. Primary data were collected on the subject matter. OLS statistical analysis was also used to evaluate the effectiveness of the independent variables on the dependent variables. Results were presented using tables along with their associated interpretations, which revealed that social entrepreneurship have significant and positive effect on perceived social entrepreneurship intention. The study concludes that intelligence and self-efficacy significantly influence social entrepreneurship intention. The study recommends that policymakers will be able to organize effective plans for training the next generation of social entrepreneurs and increase social entrepreneurship rate, the government must emphasize developing personal dispositions that strongly affect social entrepreneurship behaviour.

Keywords: *Social entrepreneurship, Social entrepreneurial intention emotional intelligence, Self-efficacy*

Introduction

Social entrepreneurship as an emerging research area, not only promotes economic development but is also an important way to solve societal problems, create shared values and enhance economic development (Stoffers, Gunawan, & Kleefstra, 2018; Huda et al., 2019). With the development of social

entrepreneurship, practitioners, and policy makers, scholars and other stakeholders are becoming more interested, in social entrepreneurship which could give dual benefits. Social entrepreneurship could help disadvantaged individuals or groups in the society, given their economic benefits (Tracey & Phillips, 2007). However, after several

decades, social entrepreneurship is yet to develop a full-fledged academic system. Several reasons can be advanced for this. Firstly, the academic community majorly, understands the phenomenon/concept of social entrepreneurship be it social entrepreneurship/social entrepreneurs (Bacq & Alt, 2018; Teasdale et al., 2022) and innovative behaviour of social entrepreneurs, their business strategies/ models of social entrepreneurship, value creation, dissemination, and the likes of social entrepreneurship (Bacq & Janssen, 2011; Cherrier et al., 2018; Dickel & Eckardt, 2020). Again, the economic, social or environmental impact/value created, cannot be completely stripped away, since it combines solving societal problems with market-oriented techniques/tools but for non-profit organizations. A combination of opportunity, entrepreneurship and philanthropy creates a sustainable and globular path of development for the society, the economy and institutions (Xu et al., 2022; Koehne et al., 2022). Also, social entrepreneurship comprises a wide range of study directions, but related results showed the characteristics of divergence and decentralization. Stirred by this, this paper is built on antecedents, processes, performance of social entrepreneurship and suggestions on the construction of a systematic theoretical system, for social entrepreneurship to fully understand different behaviours. (Lindenberg & Steg, 2007).

The notion of entrepreneurs is also browsed by the government because the influence of this entrepreneurial process is demonstrated to surge growth in the social, economic sector and also support political stability in the country. Research that assist this from Thurik & Wennekers, (2004) which says that the role of entrepreneurs can be effective tool to reduce societal problems, then research from Nawaser et al, (2011) which says that there is positive relation between poverty reduction and entrepreneurship from kebaili et al (2017).

The functions of entrepreneurship can be deposition in development of effective instruments for financial sustainability and at the same time it can solve various societal problems. The concept which has two fold characteristics turn out to becoming very popular in theory and practices, so that these two notions have the name of a new research, namely “Social Entrepreneurship” (Nicholls, 2010). The social entrepreneurship concept is be in need for developing countries as one of the mechanism to foster the process of identifying gaps in economic, political and social development so that social and economic development can be an anticipate (Tiwari et al, 2017).

Social entrepreneurship has emerged as a powerful force for addressing complex societal challenges through innovative and sustainable solutions. Unlike traditional entrepreneurship, which primarily focuses on profit maximization, social entrepreneurship blends social impact with business principles. However, despite growing global interest in this field, the level of engagement in social entrepreneurial activities remains limited, especially among young people and potential change-makers in developing regions. A key factor influencing the emergence of social entrepreneurs is the perceived social entrepreneurial intention—the individual’s conscious mindset and motivation to start a social venture. While several studies have explored entrepreneurial intention in general, there is a significant research gap in understanding the specific factors that shape intentions toward social entrepreneurship. These factors may include personal values, social awareness, perceived self-efficacy, institutional support, and exposure to social issues.

The following specific objectives were formulated to guide this study:

- i. To evaluate the effect of emotional intelligence on social entrepreneurial

intentions among undergraduates in Delta State.

- ii. To determine the effect of self-efficacy on social entrepreneurial intention among undergraduates in Delta State.

Review of Related Literature

Social Entrepreneurship

Social entrepreneurship (SE) has progressed as a research area in great significance (Kannampuzha and Hockerts 2019; Rey-Marti et al. 2016b). Several issues such as economic poverty or deficiency and human welfare have driven various firms to delve into business, with an embedded societal drive (Huda et al. 2019; Doherty et al. 2014). Social entrepreneurship acts as a catalytic agent for social change, and social entrepreneurs do not anticipate direct monetary benefit from their social ventures (Barberá-Tomás et al. 2019). Bygrave and Minniti (2000) found that every entrepreneur has a social function. However, social entrepreneurs differ from traditional entrepreneurs with a mission of social value creation rather than generating immediate economic gains for oneself (Bedi and Yadav 2019; Pless 2012; Santos 2012; Mair et al. 2012a). Schramm (2010) opines that the economic value created by an entrepreneur cannot be easily disconnected from the social benefits, as social and commercial activities are intertwined.

Moreover, as previously defined, entrepreneurship opportunities generate a sustainable cycle for social, institutional and economic development. Social enterprises merge public social goods with the market-aligned tools and techniques for profit-oriented organisations (Urbano et al. 2010). Thus, social enterprises essentially function at the boundaries of the traditional philosophies of these organisations (Mamabolo and Myres 2019; Defourny and Nyssens 2010; Dees 2012). Thus, social entrepreneurship may be considered a novel activity, that reduces

negative externalities and/or creates positive externalities via the integration of the essence of social as well as entrepreneurship constructs (Newbert and Hill 2014).

Extant literature provides enough evidence that social entrepreneurs are social enterprises and social ventures (e.g. Hota et al. 2019; Bacq and Alt 2018; André and Pache 2016; Bacq et al. 2016). Therefore, it is essential to integrate these perspectives to develop a complete and fair understanding of social entrepreneurship phenomena. Social entrepreneurship has been defined differently by different scholars (Kannampuzha and Hockerts 2019; Short et al. 2009; Peredo and McLean 2006). Lasprogata and Cotton (2003) described social entrepreneurship as a non-profit organisation (e.g. Tamarack—An Institute for Community Engagement, and Meal Exchange, Canadian non-profit oriented Social organisations funded by J. W. McConnell Family Foundation), while Wallace (1999) viewed social enterprises as profit-oriented companies managed by non-profit organisations. Furthermore, Mair and Marti (2006) defined social enterprises as organisations engaged in business activities in order to accomplish social goals. Certo and Miller (2008) articulated that social entrepreneurship relates to individuals and business entities engaging in entrepreneurial activities specifically, for a social gain,

Number of social entrepreneurs and publications have increasingly gained recognition over the last two decades (Hota et al. 2019; Zahra et al. 2014; Short et al. 2009; McQuilten 2017; Nguyen et al. 2015), perhaps because of the innovations by social entrepreneurs (Rao-Nicholson et al. 2017; Miremadi 2014). Social entrepreneurs' business strategies and business models (George and Reed 2016; Roy and Karna 2015), as well as value creation and value dissemination are now trending and disseminated by social entrepreneurs (Sulphrey

and Alkahtani 2017; Nega and Schneider 2014; Brandsen and Karré 2011).

Emotional Intelligence

Emotional intelligence (EI) is the ability to know and understand our own emotions, how we can manage ourselves, how to connect with others, and influence others' emotions (Goleman, 2011). Emotional intelligence is also meant to understand the capability to comprehend and manage a person to act prudentially in society. Emotional intelligence affects creativity, proactivity and plays an essential role in cultivating attitude toward innovation (Tsaousis & Nikolau, 2005; Zampetakis et al., 2009). "Emotional intelligence involves the following elements: self-awareness, empathy, handling relationships, managing feelings, and motivation (Goleman, 2011)". From a business perspective, the role of emotions could affect the cause of success or failure in business (Shepherd, 2004; Humphrey, 2013). In the context of social entrepreneurship, a previous study by Tiwari et al. (2017) stated that emotional intelligence will always be used to predict social entrepreneurial intentions. Most of the social entrepreneurship research defines empathy as a critical element in developing social business. Emotional intelligence helps entrepreneurs gain empathy as part of social awareness (Humphrey, 2013; Tiwari et al., 2017). It concludes, to increase social entrepreneur intention, people also need to improve their emotional intelligence to supply more benefits/value.

Self- Efficacy

Self-efficacy in business is known as a person's belief in their ability to carry out the duties and responsibilities of the entrepreneurial process and the capacity to meet the requirements of success in tasks associated with the development of a new enterprise (Hsu et al., 2017). According to social cognitive theory (Bandura, 1986),

individuals' behavior and level of persistence are related to higher levels of self-efficacy. High self-efficacy individuals frequently favor more challenging tasks and are more resilient in the face of challenges. Self-efficacy enables people to have faith in their ability to choose a career path and overcome any obstacles that may stand in their way (Kumar & Das, 2019). Self-efficacy is positively associated with new business, especially in nascent projects (McGee & Peterson, 2017). According to Godwin et al. (2016), self-efficacy affects behavior, choices, decision-making, perseverance, and goal adherence. Self-efficacy is suggested as an important premise for shaping entrepreneurial intention. A comprehensive review of the research on entrepreneurial self-efficacy shows a strong correlation between self-efficacy and the entrepreneurship intention of both employees and students (Newman et al., 2019). With the above arguments, strong self-efficacy students are thought to be more likely to develop an intention to launch a new firm.

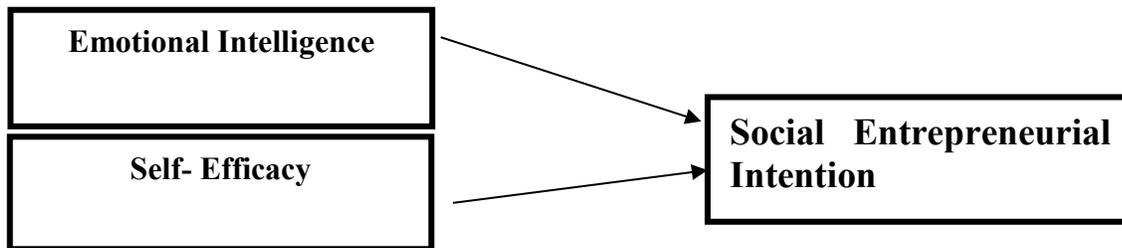
Social Entrepreneurial Intention

Behavior intention could be predicted and clarified by some personality's lifestyles and values (Chen & Tung, 2014). Their study demonstrates that attitude, behavior, or intention must be at the same level of exclusivity. It cannot be expected that general attitudes will be strongly associated with individual behavior (Chen & Tung, 2014). In the previous years, the concept of entrepreneurial intention and its predecessors have received increasing attention in entrepreneurship studies on predicting entrepreneurial behavior and understanding the interaction (Fayolle & Gailly, 2015). The entrepreneurial intention is much needed toward the launch of the enterprise. The fact that social entrepreneurial intention (SEI) is challenging to develop, the role of environment and culture also influences entrepreneurial intention (Tiwari et al., 2017).

In predicting entrepreneurial intention and behavior, it has to be recognized that the decision would be starting from the personality, personal values, attitudes, and perception which are not identical to the subject (Ernst, 2011). Motivations encourage

people toward entrepreneurial intention and the perceived reward. The motivation for each person is probably different, depending on their values. Therefore, as suggested by Tiwari et al. (2017).

Conceptual Framework for the study



Source: Researchers Model (2025)

Review of Empirical Studies

Rekha & Akanchha (2024) Social entrepreneurship is fascinating because this research is obsessing on attaining profit but also generate assistance / social securities for the community, particularly in the last decades. This research is to identify what is the consequences of social entrepreneurial intention as a intervene to perform a literature review to acknowledge the new discoveries and developments that have apparent in prior studies. To explain an extensive review the systematic literature review method is used in this study. Based on the disclosures of the literature review study, it is anticipated that there are frameworks and methodologies that can be employed for practitioners as well as researchers to comprehend the evolution of social entrepreneurial intentions so that they can motivate future researchers.

Aiwen & Cheok (2023) Social entrepreneurship has increasingly emerged as an important strength for solving social problems and promoting social innovation, and has quietly become an emerging issue in management. This paper is based on antecedents-processes-performance of social entrepreneurship. The perspectives and theories mainly involve theory of planned

behavior, entrepreneurial intention model; Hockers modified model, social capital theory, social network theory, institutional theory, event system theory, performance measurement model, etc. The results show that the research mainly focuses on the antecedents, establishment and management of social entrepreneurship, but less attention of sociological perspectives such as social governance and population theory, and also lacks attention to entrepreneurial performance. The theoretical framework of social entrepreneurship needs to be further improved. Finally, it was pointed out that future research topics should focus more on the internal problems of social enterprises, the interplay of factors affecting social entrepreneurship, the disciplinary study of social entrepreneurship, and the institutional and cultural context of different countries.

Tuan, Hong & Pham (2023) examine an ongoing conflict between economic development and social needs, especially in developing countries. Social enterprises have been seen as a key to solving this problem. Universities however, has not focused much social entrepreneurship as an academic course, unlike corporate social responsibility. The aim of this study therefore, was to examine the

relationship between mindfulness and social entrepreneurial intention (SEI) and the intermediary role of perceived controllability and self-efficacy to generate ideas for academics to develop new generations of social entrepreneurs. The study used structural equation modelling (SEM) to test the research hypotheses. A total of 294 students at all academic levels (bachelor, master, and PhD) at selected universities in southern Vietnam participated in this study. The data was collected between August 2019 and October 2019 by using questionnaires. The results showed a positive relationship between mindfulness and SEI. Additionally, the study noted students' perceived controllability and especially self-efficacy can enhance this relationship.

Sabri, Mohamad, Abidin, Ghazali & Hareeza (2023) Social entrepreneurship is a burgeoning research area that has recently garnered significant attention. Consequently, the concept of social entrepreneurial intention (SEI) has emerged as a topic of considerable interest. This paper aims to explore the factors influencing the intention to become a social entrepreneur in Malaysia. While SEI is deemed a crucial precursor to launching a social enterprise, existing empirical research on SEI factors lacks a structured and quantitatively integrated approach. Furthermore, most studies have centered on commercial enterprises rather than social ones. The dearth of research on social entrepreneurial behaviors necessitates an exploration of the critical elements that drive such behaviors and actions. A comprehensive literature review has been employed to organize existing research and establish the study's research direction, which focuses on the intentions of social entrepreneurs. This study is expected to provide insights for both society and policymakers, thereby contributing to the advancement of social entrepreneurship in Malaysia.

Theoretical Review

Theory of planned behavior

Theory of planned behavior (TPB) defines the connections between attitude toward behavior, subjective norms, and behavioral control to decide behavioral intention and its impact on action (Qalati et al., 2022). Personal attitude refers to the individuals' self-perceptions of their own competence and capability to perform activities (Ajzen, 1991). In an entrepreneurial context, it can be the difference between concepts of personal desirability in becoming self-employed and the desire to work as an employee (Souitaris et al., 2007). The way individuals perceive the benefits and value of starting a business can influence their attitude toward entrepreneurship as an opportunity for personal career growth and a way to contribute to societal development (Wang et al., 2020; Lihua, 2022). Therefore, if individuals view the advantages and rewards of entrepreneurship as valuable, as well as getting exposure and knowledge to various aspect of entrepreneurship, they are more likely to express a strong desire or attitude to become entrepreneurs (Mwiya et al., 2017; Urban & Chantson, 2017).

Subjective norms refer to the perception regarding whether the majority of individuals within a family or society are likely to be in favor of or against a particular behavior (Ajzen, 1991). In entrepreneurial context, subjective norms reflect how individuals perceive influential people around them, who either encourage or discourage them from starting a new business (Doanh, 2021). Subjective norms encompass normative beliefs, which involve perceiving the likelihood of approval or rejection from influential individuals or groups, shaping the expected behavior for the individuals, and the motivation to comply, reflecting an individuals' willingness to conform to these norms and meet the expectations of significant referents (Moriano et al., 2012).

Therefore, subjective norms can be a pressure that triggers or prevents individuals from the growth of entrepreneurial careers (Ruizalba Robledo et al., 2015). Perceived behavior control (PBC) can be defined as individuals' belief regarding the level of ease and difficulty they perceive in handling a given situation (Ajzen, 1991). While considering entrepreneurs as a career choice, perceiving the easiness in engaging entrepreneurial activities seems to influence individuals' perception (Tsordia & Papadimitriou, 2015). Perceived behavior control is influenced by human capital, which encompasses factors such as the individual's professional skills, entrepreneurial skills, past experiences, and personal characteristics (Lihua, 2022). Hence, when presented with a particular opportunity, individuals with relevant education, experience, or exposure may view themselves as more competent to take advantage of the opportunity, thus motivating them to seize it (Mwiya et al., 2017). Perceived behavior

control is not only about individuals' belief in their ability possess the necessary skills for starting and succeeding in a business but also the perception of having control over their actions to overcome the greater uncertainties, such as financial, technological, and legal, which commonly associated with new ventures (Miranda et al., 2017).

Research Method

The main instrument for data collection was structured questionnaire. The student of Dennis Osadebay University, Asaba and University of Delta Agbor (UNIDEL) participated in this study. A sample size of One hundred and fifty four (191) was derived for this study. Statistical Package for Social Sciences (SPSS version 24.0) was used to analyze data. The study population was 365 student of both Dennis Osadebay University, Asaba and University of Delta Agbor (UNIDEL).

Results and Discussion

Hypothesis One

H0₁: There is significant effect between Emotional intelligence on social entrepreneurial intention among university student.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.890 ^a	.879	.879	.48295

a. Predictors: (Constant), Emotional intelligence (EI)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	66.393	1	66.393	24.210	.000 ^b
	Residual	534.774	195	2.742		
	Total	601.168	196			

a. Dependent Variable: Perceived Social Entrepreneurship Intention (PSEI)
b. Predictors: (Constant), Social Entrepreneurship (SE)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.890	1.026		10.615	.000
	Emotional Intelligence (EI)	.292	.059	.332	4.920	.000

a. Dependent Variable: Emotional intelligence (EI)

Source: Field Survey Analysis, 2025

From the regression result in the table 4.8 above, the p-value is less than 0.005. This shows a positive beta value of .332 (33%), which shows that Emotional intelligence (EI) has a significant effect on perceived social

entrepreneurship intention among university student in Delta State, as the probability value of .000 is also less than the critical level of significance (i.e. $p < 0.005$).

Hypothesis Two

H02: There is significant effect between Self-efficacy on social entrepreneurial intention among university student.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.156 ^a	.024	.019	1.7343

a. Predictors: (Constant), Self-efficacy (SE)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	14.644	1	14.644	4.868	.029 ^b
	Residual	586.524	195	3.008		
	Total	601.168	196			

a. Dependent Variable: Perceived Social Entrepreneurship Intention (PSEI)

b. Predictors: (Constant), Self-efficacy (SE)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.575	1.063		12.775	.000
	Self-efficacy (SE)	.143	.065	.156	2.206	.029

a. Dependent Variable: Perceived Social Entrepreneurship Intention (PSEI)

Source: Field Survey Analysis, 2025

In table 8 above shows a positive beta value of .156 (16%), which shows that Self-efficacy (SE) has a significant impact on Perceived social entrepreneurship intention (PSEI) (i.e. $p > .005$).

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.837	1.390		7.075	.000
	EI	-.034	.053	-.050	-.631	.529
	SE	.061	.063	.073	.974	.331

a. Dependent Variable: Perceived Social Entrepreneurship Intention (PSEI)

Source: Field Survey Analysis, 2025

The results in table 9 above, shows that the tested variables exhibited positive coefficients, implying that, there is a significant positive effects between the studied variables of social entrepreneurship and perceived social entrepreneurship intention among university student in Delta State. Also, apart from emotional intelligence with a higher beta significant value of .050, self-efficacy also exhibited better positive beta values. Emotional intelligence seems to be most significant variables to Perceived social entrepreneurship intention among university student in Delta State.

Summary, Conclusion and Recommendations

Summary of Findings

Key Findings revealed the following:

- i. High levels of empathy and a strong sense of moral obligation were found to be intrinsic motivators. These emotional drivers significantly

contributed to the intention to pursue social entrepreneurship.

- ii. Self-efficacy, or the belief in one's capability to initiate and manage a social enterprise, was a significant predictor of intention. Respondents who felt confident in their skills and resources were more likely to express intent to engage in social entrepreneurship.

Conclusion

The results conclude that two hypotheses are supported. The analysis showed that emotional intelligence and self-efficacy significantly influence social entrepreneurial intention. In contrast, emotional intelligence partially has no significant influence on social entrepreneurial intention (SEI). On the other hand, emotional intelligence and self-efficacy simultaneously have a significant influence on social entrepreneurial intentions (SEI). This concludes that the use of the vicarious learning model of social entrepreneurs should involve social persuasion. Therefore, to increase students' intention on social entrepreneurship, higher education institutions need to redesign the entrepreneurship curriculum to accommodate emotional

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-t](https://doi.org/10.1016/0749-5978(91)90020-t)
- André, K., & Pache, A. C. (2016). From caring entrepreneur to caring enterprise: Addressing the ethical challenges of scaling up social enterprises. *Journal of Business Ethics*, 133(4), 659-675
- Bacq, S., & Alt, E. (2018). Feeling Capable and Valued: A Prosocial Perspective on the Link between Empathy and Social Entrepreneurial Intentions. *Journal of Business Venturing*, 33, 333-350. <https://doi.org/10.1016/j.jbusvent.2018.01.004>
- Bacq S., & Alt E. (2018). Feeling capable and valued: A prosocial perspective on the link between empathy and social entrepreneurial intentions. *Journal of Business Venturing*, 33(3), 333-350

intelligence in terms of empathy. In theoretical contribution, this study provides a better understanding of emotional intelligence's role on social entrepreneurial intention.

Recommendations

The following recommendations have been made. Thus:

- i. The policymakers will be able to organize effective plans for training the next generation of social entrepreneurs and increase SE rate.
- ii. The government must emphasize developing personal dispositions that strongly affect social entrepreneurship behaviour.

- Bacq, S., Hartog, C., & Hoogendoorn, B. (2016). Beyond the moral portrayal of social entrepreneurs: An empirical approach to who they are and what drives them. *Journal of Business Ethics*, 133(4), 703-718.
- Bacq, S., & Janssen, F. (2011). The Multiple Faces of Social Entrepreneurship: A Review of Definitional Issues Based on Geographical and Thematic Criteria. *Entrepreneurship & Regional Development*, 23, 373-403. <https://doi.org/10.1080/08985626.2011.577242>
- Barberá-Tomás, D., Castelló, I., de Bakker, F. G., & Zietsma, C. (2019). Energizing through visuals: How social entrepreneurs use emotion-symbolic work for social change. *Academy of Management Journal*, 62(6), 1789-1817.
- Bedi, H. S., & Yadav, M. N. (2019). Social Entrepreneurship: A Conceptual Clarity. *Our Heritage*, 67(10), 1006-1016

- Brandsen, T., & Karré, P. M. (2011). Hybrid organizations: No cause for concern? *International Journal of Public Administration*, 34(13), 827-836.
- Bygrave, W., & Minniti, M. (2000). The social dynamics of entrepreneurship. *Entrepreneurship Theory and Practice*, 24(3), 29-40
- Certo, S. T., & Miller, T. (2008). Social entrepreneurship, key issues and concepts. *Business Horizons*, 51(4), 267-271.
- Cherrier, H., Goswami, P., & Ray, S. (2018). Social Entrepreneurship: Creating Value in the Context of Institutional Complexity. *Journal of Business Research*, 86, 245-258. <https://doi.org/10.1016/j.jbusres.2017.10.056>
- Dees, J. G. (2012). A tale of two cultures, Charity, problem solving, and the future of social entrepreneurship. *Journal of Business Ethics*, 111(3), 321-334
- Defourny, J., & Nyssens, M. (2010). Conceptions of Social Enterprise and Social Entrepreneurship in Europe and the United States: Convergences and Differences. *Journal of Social Entrepreneurship*, 1(1), 32-53.
- Dickel, P., & Eckardt, G. (2020). Who Wants to Be a Social Entrepreneur? The Role of Gender and Sustainability Orientation. *Journal of Small Business Management*, 59, 196-218. <https://doi.org/10.1080/00472778.2019.1704489>
- Doherty, B., Haugh, H., & Lyon, F. (2014). Social enterprises as hybrid organizations: A review and research agenda. *International Journal of Management Reviews*, 5(1), 231-277.
- Fayolle, A., & Gailly, B. (2015). The Impact of Entrepreneurship Education on Entrepreneurial Attitudes and Intention: Hysteresis and Persistence. *Journal of Small Business Management*, 53(1), 75-93.
- George, C., & Reed, M. (2016). Building institutional capacity for environmental governance through social entrepreneurship: Lessons from Canadian biosphere reserves. *Ecology and Society*, 21(1). Available at: <http://dx.doi.org/10.5751/ES-08229-210118>.
- Godwin, J. L., Neck, C. P., & D'Intino, R. S. (2016). Self-leadership, spirituality, and entrepreneur performance: A conceptual model. *Journal of management, spirituality & religion*, 13(1), 64-78. <https://doi.org/10.1080/14766086.2015.1122546>
- Goleman, D. (2011). The brain and emotional intelligence: New insights. *Regional Business*, 94.
- Hota, P. K., Subramanian, B., & Narayanamurthy, G. (2019). Mapping the Intellectual Structure of Social Entrepreneurship Research: A Citation/Co-citation Analysis. *Journal of Business Ethics*, <https://doi.org/10.1007/s10551-019-04129-4>.
- Huda, M., Qodriah, S. L., Rismayadi, B., Hananto, A., Kardiyati, E. N., Ruskam, A., & Nasir, B. M. (2019). Towards cooperative with competitive alliance: insights into performance value in social entrepreneurship. In *Creating business value and competitive advantage with social*

- entrepreneurship (pp. 294-317). IGI Global.
- Humphrey, R. H. (2013). The benefits of emotional intelligence and empathy to entrepreneurship. *Entrepreneurship Research Journal*, 3(3), 287-294.
- Kannampuzha, M., & Hockerts, K. (2019). Organizational social entrepreneurship: scale development and validation. *Social Enterprise Journal*, 15(3), 290-319
- Kebaili, B., Al-Subyae, S. S., & Al-Qahtani, F. (2017). Barriers of entrepreneurial intention among Qatari male students. *Journal of Small Business and Enterprise Development*, 24(4), 833–849. <https://doi.org/10.1108/JSBED-11-2016-0186>.
- Koehne, F., Woodward, R., & Honig, B. (2022). The Potentials and Perils of Prosocial Power: Transnational Social Entrepreneurship Dynamics in Vulnerable Social Spaces. *Journal of Business Venturing*, 37, Article 106206. <https://doi.org/10.1016/j.jbusvent.2022.106206>
- Kumar, S., & Das, S. (2019). An extended model of theory of planned behaviour: Entrepreneurial intention, regional institutional infrastructure and perceived gender discrimination in India. *Journal of Entrepreneurship in Emerging Economies*, 11(3), 369-391. <https://doi.org/10.1108/JEEE-09-2018-0089>
- Lindenberg, S., & Steg, L. (2007). Normative, Gain and Hedonic Goal Frames Guiding Environmental Behavior. *Journal of Social Issues*, 63, 117-137. <https://doi.org/10.1111/j.1540-4560.2007.00499.x>
- Nawaser, K., Khaksar, S. M. S., Shaksian, F., & Afshar Jahanshahi, A. (2011). Motivational and Legal Barriers of Entrepreneurship Development. *International Journal of Business and Management*, 6(11), 112–118. <https://doi.org/10.5539/ijbm.v6n11p112>
- Mair, J., Marti, I., & Ventresca, M. J. (2012b). Building Inclusive Markets in Rural Bangladesh: How Intermediaries Work Institutional Voids. *Academy of Management Journal*, 55(4), 819-850
- Mair, J., & Marti, I. (2006). Social entrepreneurship research: A source of explanation, prediction, and delight. *Journal of World Business*, 41(1), 36-44.
- Mamabolo, A., & Myres, K. (2019). Performance Measurement in Emerging Market Social Enterprises using a Balanced Scorecard. *Journal of Social Entrepreneurship*, <https://doi.org/10.1080/19420676.2018.1561499>
- McGee, J. E., & Peterson, M. (2019). The long-term impact of entrepreneurial self-efficacy and entrepreneurial orientation on venture performance. *Journal of small business management*, 57(3), 720-737. DOI: 10.1111/jsbm.12324
- McQuilten, G. (2017). The political possibilities of art and fashion based social enterprise. *Continuum*, 31(1), 69-83. Méndez-Picazo, M. T., Ribeiro-Soriano, D., & Galindo-Martín, M. Á. N. (2015). Drivers of social entrepreneurship. *European Journal of International Management*, 9(6), 766-779.

- Miranda, F. J., Chamorro-Mera, A., & Rubio, S. (2017). Academic entrepreneurship in Spanish universities: An analysis of the determinants of entrepreneurial intention. *European Research on Management and Business Economics*, 23(2), 113–122. <https://doi.org/10.1016/j.iedeen.2017.01.001>
- Miremadi, T. (2014). The role of discourse of techno-nationalism and social entrepreneurship in the process of development of new technology: A case study of stem cell research and therapy in Iran. *Iranian Studies*, 47(1), 1-20.
- Moriano, J. A., Gorgievski, M., Laguna, M., Stephan, U., & Zarafshani, K. (2012). A cross-cultural approach to understanding entrepreneurial intention. *Journal of Career Development*, 39(2), 162–185. <https://doi.org/10.1177/0894845310384481>
- Nega, B., & Schneider, G. (2014). Social entrepreneurship, microfinance, and economic development in Africa. *Journal of Economic Issues*, 48(2), 367-376.
- Newbert, S. L., & Hill, R. P. (2014). Setting the Stage for Paradigm Development: A ‘Small-Tent’ Approach to Social Entrepreneurship. *Journal of Social Entrepreneurship*, 5(3), 243-269.
- Newman, A., Obschonka, M., Schwarz, S., Cohen, M., & Nielsen, I. (2019). Entrepreneurial self-efficacy: A systematic review of the literature on its theoretical foundations, measurement, antecedents, and outcomes, and an agenda for future research. *Journal of Vocational Behavior*, 110, 403-419. <https://doi.org/10.1016/j.jvb.2018.05.012>
- Nguyen, L., Szkudlarek, B., & Seymour, R. G. (2015). Social impact measurement in social enterprises: An interdependence perspective. *Canadian Journal of Administrative Sciences*, 32(4), 224-237.
- Nicholls, A. (2010). The Legitimacy of Social Entrepreneurship: Reflexive Isomorphism in a Pre-Paradigmatic Field. *Entrepreneurship Theory and Practice*, 34(4), 611–633, 34(4), 611–633. https://doi.org/10.1057/9781137035301_11
- Peredo, A. M., & McLean, M. (2006). Social entrepreneurship: A critical review of the concept. *Journal of World Business*, 41(1), 56-65.
- Pless, N. M. (2012). Social entrepreneurship in theory and practice: An introduction. *Journal of Business Ethics*, 111(3), 317- 320.
- Rao-Nicholson, R., Vorley, T., & Khan, Z. (2017). Social innovation in emerging economies: A national systems of innovation based approach. *Technological Forecasting and Social Change*, 121, 228-237
- Rey-Martí, A., Ribeiro-Soriano, D., & Sánchez-García, J. L. (2016a). Giving back to society, Job creation through social entrepreneurship. *Journal of Business Research*, 69(6), 2067-2072.
- Roy, K., & Karna, A. (2015). Doing social good on a sustainable basis: competitive advantage of social businesses. *Management Decision*, 53(6), 1355-1374.
- Ruizalba Robledo, J. L., Vallespín Arán, M., Martín Sánchez, V., & Rodríguez Molina, M. Á. (2015). The moderating role of gender on entrepreneurial intentions: A TPB perspective. *Intangible Capital*, 11(1). <https://doi.org/10.3926/ic.557>

- Santos, F. M. (2012). A positive theory of social entrepreneurship. *Journal of business ethics*, 111(3), 335-351.
- Shepherd, D. A. (2004). Educating Entrepreneurship Students About Emotion and Learning From Failure. *Academy of Management Learning and Education*, 3(3), 274-287.
- Schramm, C. (2010). *All Entrepreneurship is Social*. Stanford Social Innovation Review, Spring.
- Short, J. C., Moss, T. W., & Lumpkin, G. T. (2009). Research in social entrepreneurship: Past contributions and future opportunities. *Strategic entrepreneurship journal*, 3(2), 161-194.
- Steg, L., & Vlek, C. (2009). Encouraging Pro-Environmental Behavior: An Integrative Review and Research Agenda. *Journal of Environmental Psychology*, 29, 309-317. <https://doi.org/10.1016/j.jenvp.2008.10.004>
- Stoffers, J., Gunawan, A., & Kleefstra, A. (2018). Social Entrepreneurship, an International Perspective. *Open Journal of Social Sciences*, 6, 10-24. <https://doi.org/10.4236/jss.2018.610002>
- Sulphey, M. M., & Alkahtani, N. S. (2017). Economic security and sustainability through social entrepreneurship: the current Saudi scenario. *Journal of Security and Sustainability Issues*, 6(3), 479-490
- Teasdale, S., Roy, M. J., Nicholls, A., & Hervieux, C. (2022). Turning Rebellion into Money? Social Entrepreneurship as the Strategic Performance of Systems Change. *Strategic Entrepreneurship Journal*, 17, 19-39. <https://doi.org/10.1002/sej.1452>
- Thurik, R., & Wennekers, S. (2004). Entrepreneurship, small business and economic growth. *Journal of Small Business and Enterprise Development*, 11(1), 140-149. <https://doi.org/10.1108/14626000410519173>.
- Tiwari, P., Bhat, A. K., & Tikoria, J. (2017). The role of emotional intelligence and self-efficacy on social entrepreneurial attitudes and social entrepreneurial intentions. *Journal of Social Entrepreneurship*, 8(2), 165-185. <https://doi.org/10.1080/19420676.2017.1371628>.
- Tiwari, P., Bhat, A. K., & Tikoria, J. (2017). The role of emotional intelligence and self-efficacy on social entrepreneurial attitudes and social entrepreneurial intentions. *Journal of Social Entrepreneurship*, 8(2), 165-185.
- Tracey, P., & Phillips, N. (2007). The Distinctive Challenge of Educating Social Entrepreneurs: A Postscript and Rejoinder to the Special Issue on Entrepreneurship Education. *Academy of Management Learning & Education*, 6, 264-271. <https://doi.org/10.5465/amle.2007.25223465>
- Tran, A. T. P., & Von Korflesch, H. (2016). A conceptual model of social entrepreneurial intention based on the social cognitive career theory. *Asia Pacific Journal of Innovation and Entrepreneurship*, 10(1), 17-38. <https://doi.org/10.1108/APJIE-12-2016-007>
- Tsaousis, I., & Nikolau, I. (2005). Exploring the Relationship of Emotional Intelligence with Physical and

- Psychological Health Functioning. *Stress and Health*, 21(2), 77-86.
- Tsordia, C., & Papadimitriou, D. (2015). The role of theory of planned behavior on entrepreneurial intention of Greek business students. *International Journal of Synergy and Research*, 4(1), 23–37. <https://doi.org/10.17951/ijsr.2015.4.1.23>
- Urbano, D., Toledano, N., & Soriano, D. (2010). Analyzing social entrepreneurship from an institutional perspective, evidence from Spain. *Journal of Social Entrepreneurship*, 1(1), 54-69.
- Wallace, S. L. (1999). Social entrepreneurship, the role of social purpose enterprises in facilitating community economic development. *Journal of Developmental Entrepreneurship*, 4(2), 153-174.
- Xu, Z., Liu, Z., & Wu, J. (2022). Buddhist Entrepreneurs, Charitable Behaviors, and Social Entrepreneurship: Evidence from China. *Small Business Economics*, 59, 1197-1217. <https://doi.org/10.1007/s11187-021-00570-w>
- Zahra, S. A., Newey, L. R., & Li, Y. (2014). On the frontiers: The implications of social entrepreneurship for international entrepreneurship. *Entrepreneurship Theory and Practice*, 38(1), 137-158.
- Zampetakis, L. A., Kafetsios, K., Bouranta, N., Dewett, T., & Moustakis, V. S. (2009). On the relationship between emotional intelligence and entrepreneurial attitudes and intentions. *Entrepreneurial Behaviour & Research*, 15(6), 595-618.



Bank sector credit allocation and industrial growth in Nigeria

BY

MENE, Evuarerhe Thankgod¹ and Prof. EHIEDU, Victor C².

Banking and Finance Department
Faculty of Management Sciences
Delta State University, Abraka. Nigeria

Publication Date: 2025/06/30

Abstract

This study examined the effect of bank sector credit allocation on industrial growth in Nigeria from the period of 1990 to 2023 (34years). Bank sector credit allocation proxied Credit to Manufacturing Sector (CMS), Credit to Agricultural Sector (CAS), Credit to Mining and Quarrying Sector (CMQS), Credit to Real Estate and Construction sector (CRECS), Credit to General Commerce Sector (CGCS) and Credit to Small and Medium Scale Enterprises (CSMSE) in relation to industrial growth proxied with Industrial Output (IO) in Nigeria. The CBN Statistical Bulletin from 1990-2023 were used to acquire data for the research and analyzed with Descriptive statistics, correlation analysis, diagnostics tests, unit root test, Johanssen cointegration test and ordinary least multiple regression analysis were used to assess the research hypotheses. In the light of the findings, CMS, CAS, MQS and CGCS have significant effects on IO in Nigeria while CRECS and CSME do not have significant effect on IO in Nigeria. Hence, the study concluded that bank sector credit allocation have significant effect on industrial growth in Nigeria in Nigeria. The study recommended that Policymakers should prioritize increasing credit access to the manufacturing sector to stimulate industrial growth. This can be achieved through favorable lending rates and incentives for financial institutions. The government should implement policies that encourage investment in the manufacturing and agricultural sectors, such as tax incentives and subsidies. The government should implement programs that facilitate credit access for agricultural producers, ensuring a steady supply of raw materials for the manufacturing sector. This study contributes to the existing body of knowledge by providing empirical evidence on the differential impacts of credit allocation across various sectors on industrial output in Nigeria. It highlights the sectors that are critical for industrial growth and underscores the need for strategic financial interventions.

Key Words: Bank Sector, Credit, Allocation, Manufacturing, Real Estate, Construction,

Introduction

The banking sector plays a pivotal role in the economic development of nations, particularly in emerging economies like Nigeria. As a critical intermediary in the financial system, banks facilitate the allocation of credit, which is essential for

fostering industrial growth and overall economic stability. The relationship between bank credit allocation and industrial growth has garnered significant attention from researchers and policymakers alike, as it is widely recognized that access to finance is a fundamental driver of industrialization and

economic diversification (Akinlo & Egbetunde, 2020; Ojo, 2020). Bank credit serves as a vital source of funding for businesses, enabling them to invest in capital, expand operations, and innovate. According to Akinlo and Akinlo (2021), access to credit is essential for enhancing productivity and fostering industrial growth. In Nigeria, where the manufacturing sector is crucial for job creation and economic diversification, the allocation of bank credit to this sector can significantly impact industrial output and growth (Ogunleye & Ojo, 2020). The banking sector plays a pivotal role in the economic development of nations, particularly in emerging economies like Nigeria. Credit allocation by banks is a critical determinant of industrial growth, as it influences the capacity of various sectors to expand, innovate, and contribute to overall economic productivity. In Nigeria, the allocation of credit to key sectors such as manufacturing, agriculture, small and medium-sized enterprises (SMEs), mining and quarrying, general commerce, as well as real estate and construction, has significant implications for industrial growth. The manufacturing sector is often regarded as the backbone of industrialization, providing jobs, enhancing productivity, and fostering technological advancement (Ogunleye, 2021). In Nigeria, the manufacturing sector has faced numerous challenges, including inadequate financing, which has hindered its growth potential. According to the Central Bank of Nigeria (CBN, 2022), a substantial portion of bank credit is directed towards manufacturing, yet the sector still struggles with undercapitalization and infrastructural deficits. This situation underscores the need for a more strategic allocation of credit to stimulate growth and competitiveness. Similarly, the agricultural sector is crucial for Nigeria's economy, employing a significant portion of the population and contributing to food security (Akinwumi et al., 2020). Access to credit is essential for farmers to invest in

modern technologies and practices that can enhance productivity. Recent studies indicate that increased bank credit to agriculture correlates positively with agricultural output, thereby supporting industrial growth through improved supply chains and raw material availability (Ojo & Adebayo, 2023). Small and medium-sized enterprises (SMEs) are often referred to as the engine of economic growth due to their potential for job creation and innovation. However, SMEs in Nigeria face significant barriers to accessing credit, which limits their ability to scale operations and contribute to industrial growth (Ogunbiyi, 2022). The Nigerian banking sector's focus on larger corporations often leaves SMEs underserved, highlighting the need for policies that promote equitable credit distribution. One of the critical factors influencing the growth and sustainability of this sector is access to credit, particularly credit extended to general commerce. The interplay between credit availability and industrial performance is profound, as it affects the capacity of businesses to invest in production, expand operations, and innovate. Recent studies indicate that the accessibility and affordability of credit can either bolster or hinder industrial growth, depending on various economic conditions and regulatory frameworks (Ogunleye & Adebayo, 2022; Uche & Nwankwo, 2023). In the context of Nigeria, credit to general commerce is crucial for small and medium-sized enterprises (SMEs) that often face challenges in accessing traditional banking services. The provision of credit enables these businesses to procure inventory, invest in technology, and expand their market reach, thereby enhancing their competitiveness in the industrial sector (Afolabi & Ojo, 2023). The mining and quarrying sector, while less emphasized, also plays a vital role in Nigeria's industrial landscape. The sector is rich in mineral resources, and adequate credit allocation can facilitate exploration and extraction activities,

thereby contributing to industrial growth (Nwankwo et al., 2021). Furthermore, the real estate and construction sector is integral to infrastructure development, which is essential for supporting other industries. Investment in this sector through bank credit can lead to improved facilities and services that enhance overall industrial productivity (Ojo, 2023). Thus, the impact of bank sector credit allocation on industrial growth in Nigeria is multifaceted and significant.

In Nigeria, the banking sector has undergone substantial reforms aimed at enhancing its efficiency and capacity to support industrial activities. These reforms have included the consolidation of banks, the introduction of new regulatory frameworks, and the promotion of financial inclusion initiatives (Central Bank of Nigeria [CBN], 2021). Despite these efforts, challenges such as inadequate credit supply, high-interest rates, and a lack of collateral continue to hinder the ability of industries, particularly small and medium-sized enterprises (SMEs), to access necessary funding (Ogunleye&Akinola, 2021). The Industrial sector in Nigeria is crucial for economic growth, contributing significantly to GDP and employment. However, it has faced numerous challenges, including infrastructural deficits, policy inconsistencies, and a volatile macroeconomic environment (World Bank, 2022). The interplay between bank credit allocation and industrial growth is therefore critical to understanding how financial resources can be effectively mobilized to stimulate industrial activities and enhance economic resilience.

This paper aims to investigate the impact of bank sector credit allocation on industrial growth in Nigeria, focusing on the mechanisms through which credit influences industrial performance. It will explore the extent to which access to bank credit affects investment decisions, production capacity, and overall industrial output. By examining the dynamics of credit distribution to the

manufacturing sector, agriculture, SMEs, mining and quarrying, general and real estate and construction, this study aims to provide insights into how strategic financial interventions can foster industrial growth in Nigeria.

Objectives of the Study

The main objective of this study is to examine the effect of bank sector credit allocation on industrial growth in Nigeria. To achieve this, the objectives are further broken into units that were outlined below:

1. Determine the effect of Credit to Manufacturing Sector (CMS) on Industrial Output (IO) in Nigeria.
2. Investigate the extent to which Credit to Agricultural Sector (CAS) enhance Industrial Output (IO) in Nigeria.
3. Evaluate the impact of Credit to Mining and Quarrying Sector (CMQS) on Industrial Output (IO) in Nigeria.
4. Investigate the extent to which Credit to Real Estate and Construction sector (CRECS) enhance Industrial Output (IO) in Nigeria.
5. Explore the effect of Credit to General Commerce Sector (CGCS) on Industrial Output (IO) in Nigeria.
6. Examine the extent to which Credit to Small and Medium Scale Enterprises (CSMSE) enhance Industrial Output (IO) in Nigeria.

Conceptual Review

Bank Sector Credit Allocation

The banking sector plays a pivotal role in the economic development of nations by facilitating credit allocation across various sectors. Credit allocation refers to the distribution of financial resources by banks to different sectors of the economy, which is crucial for fostering growth, innovation, and sustainability. Among the key sectors that benefit from bank credit are manufacturing, agriculture, small and medium-sized enterprises (SMEs), mining and quarrying,

general commerce and real estate and construction. Each of these sectors has unique characteristics and requirements that influence their access to credit, which in turn impacts overall industrial growth.

Credit to the Manufacturing Sector: The manufacturing sector is often regarded as the backbone of industrial economies, contributing significantly to GDP and employment. Access to credit is essential for manufacturers to invest in technology, expand production capacity, and enhance competitiveness. Recent studies indicate that increased credit availability to the manufacturing sector correlates with higher productivity and innovation (World Bank, 2022). However, challenges such as stringent lending criteria and high collateral requirements can hinder access to finance for manufacturers, particularly small and medium-sized firms (OECD, 2021).

Credit to the Agricultural Sector: Agriculture is another critical sector that relies heavily on bank credit for its operations. Access to financial resources enables farmers to invest in modern equipment, seeds, and fertilizers, thereby increasing productivity and food security. Despite its importance, the agricultural sector often faces barriers to credit, including perceived risks and lack of collateral (FAO, 2021). Recent initiatives aimed at improving financial inclusion for farmers, such as microfinance and agricultural credit schemes, have shown promise in enhancing credit access and promoting sustainable agricultural practices (IFAD, 2022).

Credit to Small and Medium Scale Enterprises (SMEs): SMEs are vital for economic growth, job creation, and innovation. However, they frequently encounter difficulties in securing credit due to their size, lack of credit history, and perceived risk by lenders. The banking sector's ability to provide tailored financial products and services to SMEs is crucial for their growth

and sustainability (European Commission, 2021). Recent trends indicate a growing recognition of the importance of SMEs, leading to the development of specialized lending programs and support initiatives aimed at enhancing their access to finance (World Bank, 2022).

Credit to Mining and Quarrying: The mining and quarrying sector is essential for resource extraction and contributes significantly to national economies. However, it is capital-intensive and often requires substantial upfront investment. Access to credit is critical for mining companies to finance exploration, development, and operational activities. The sector's cyclical nature and exposure to commodity price fluctuations can pose challenges for banks in assessing credit risk (International Council on Mining and Metals, 2021). Nevertheless, innovative financing solutions, such as project financing and partnerships, are emerging to support this sector's credit needs (Deloitte, 2022).

Credit to General Commerce: Credit to general commerce serves as a lifeline for businesses, particularly in developing economies like Nigeria, where access to financial resources is often limited. The significance of credit in fostering economic growth cannot be overstated, as it directly influences the operational capabilities of firms within the industrial sector. In Nigeria, the industrial landscape is characterized by a diverse range of activities, including manufacturing, construction, and services, all of which rely heavily on the availability of credit to sustain their operations and drive growth (Ogunleye & Adebayo, 2022). The Nigerian government has recognized the importance of credit to general commerce in stimulating industrial growth and has implemented various policies aimed at improving access to finance for businesses. However, challenges such as high-interest rates, stringent lending criteria, and inadequate financial infrastructure continue to

impede the flow of credit to the industrial sector (Uche & Nwankwo, 2023). Recent research highlights the need for innovative financing solutions and the role of microfinance institutions in bridging the credit gap for SMEs, which are vital for the industrial sector's growth (Afolabi & Ojo, 2023). Moreover, the impact of credit on the industrial sector extends beyond mere financial transactions; it influences the overall economic environment, including employment rates, technological advancement, and export capabilities.

Credit to Real Estate and Construction:

The real estate and construction sector is a significant driver of economic growth, providing employment and contributing to infrastructure development. Access to credit in this sector is vital for residential and commercial projects. However, the sector is often subject to regulatory constraints and market volatility, which can affect lending practices (McKinsey & Company, 2021). Recent trends indicate a shift towards sustainable construction practices, prompting banks to develop green financing options to support environmentally friendly projects (UNEP, 2022).

Industrial Growth

The interplay between credit allocation and industrial growth is complex and multifaceted. Adequate credit supply to key sectors can stimulate investment, enhance productivity, and drive economic expansion. Conversely, limited access to finance can stifle growth and innovation. Policymakers and financial institutions must work collaboratively to create an enabling environment that fosters credit availability while managing risks (IMF, 2022). As economies continue to evolve, understanding the dynamics of credit allocation across sectors will be crucial for sustainable industrial growth.

Theoretical Review

Supply-Leading Hypothesis

Theoretical propositions on the effect of bank lending on output growth dates back to Schumpeterian “supply-leading hypothesis”. Schumpeter (1934) argues that efficient allocation of savings through the identification and extension of credit to entrepreneurs with the best chances of successfully implementing innovative products and production process accelerates output growth in the long-run. To Schumpeter, financial intermediation serves as a useful tool for increasing the productive capacity of the economy. The supply-leading hypothesis posits that the growth of the financial sector, particularly through the allocation of credit, plays a crucial role in stimulating economic growth. This theory suggests that an increase in the supply of credit can lead to enhanced investment in productive sectors, thereby fostering industrial growth and overall economic development. In the context of Nigeria, a country characterized by a diverse economic landscape, the allocation of bank sector credit to various sectors such as manufacturing, agriculture, small and medium-sized enterprises (SMEs), mining and quarrying, and real estate and construction is pivotal for understanding the dynamics of industrial growth. Nigeria’s economy has undergone significant transformations over the past few decades, with the financial sector emerging as a critical driver of economic activity. The banking sector’s role in credit allocation is particularly important, as it influences the availability of funds for investment in key sectors that contribute to industrial output. For instance, the manufacturing sector, which is vital for job creation and economic diversification, relies heavily on access to credit for capital investment and operational expansion (Ogunleye&Akinola, 2021). Similarly, the agricultural sector, which employs a significant portion of the Nigerian workforce, requires adequate financing to enhance

productivity and ensure food security (Akinwumi et al., 2020).

Moreover, small and medium-sized enterprises (SMEs) are recognized as engines of growth in many economies, including Nigeria. They contribute substantially to employment and innovation but often face challenges in accessing credit (Oni & Adebayo, 2022). The mining and quarrying sector, with its potential for export and foreign exchange earnings, also depends on sufficient credit allocation to develop infrastructure and technology (Ogunbiyi et al., 2021). Lastly, the real estate and construction sector is crucial for urban development and infrastructure provision, necessitating significant investment that is often facilitated through bank credit (Ojo&Ojo, 2023). The relationship between bank credit allocation and industrial growth in Nigeria is complex and multifaceted. While the supply-leading hypothesis suggests that increased credit can stimulate growth, it is essential to consider the quality and efficiency of credit allocation. Factors such as interest rates, credit risk assessment, and the regulatory environment can significantly influence the effectiveness of credit in promoting industrial growth (Adegbe et al., 2022). Furthermore, the impact of credit allocation may vary across sectors, necessitating a nuanced understanding of how different sectors respond to changes in credit availability.

By implication, the supply-leading hypothesis provides a valuable framework for analyzing the impact of bank sector credit allocation on industrial growth in Nigeria. By examining the specific contributions of credit to the manufacturing sector, agriculture, SMEs, mining and quarrying, general commerce and real estate and construction, this study aims to shed light on the critical role of financial intermediation in fostering economic development in Nigeria.

Theory of Financial Intermediation

Financial intermediation theory was first formalized in the works of McKinnon (1973) and Shaw (1973) that see financial markets as playing a pivotal role in economic development, attributing the differences in economic growth across countries to the quantity and quality of services provided by financial institutions. The theory of financial intermediation plays a pivotal role in understanding the dynamics of financial systems and their impact on economic growth. Financial intermediaries, such as banks, serve as crucial conduits between savers and borrowers, facilitating the flow of funds within an economy. This intermediation process is essential for mobilizing savings, allocating resources efficiently, and managing risks, thereby fostering economic development (Diamond & Dybvig, 2019). In the context of Nigeria, a country characterized by a diverse economic landscape, the allocation of bank sector credit to various sectors—such as manufacturing, agriculture, small and medium-sized enterprises (SMEs), mining and quarrying, general commerce and real estate and construction—has significant implications for industrial growth.

The manufacturing sector is often viewed as a cornerstone of economic development, contributing to job creation, innovation, and export diversification (Ogunleye, 2020). Similarly, the agricultural sector remains vital for food security and rural development, while SMEs are recognized for their role in enhancing economic resilience and fostering entrepreneurship (Akanbi & Ojo, 2021). The mining and quarrying sector, alongside real estate and construction, also plays a critical role in infrastructure development and resource extraction, which are essential for industrial growth. In Nigeria, the allocation of credit to these sectors is influenced by various factors, including regulatory frameworks, economic policies, and the overall health of the banking sector. The Central Bank of Nigeria (CBN) has implemented several

initiatives aimed at enhancing credit access to these sectors, recognizing their potential to drive industrial growth and economic diversification (CBN, 2022). However, challenges such as inadequate infrastructure, high-interest rates, and limited financial literacy continue to hinder effective credit allocation and utilization.

Recent studies have highlighted the relationship between bank credit allocation and industrial growth in Nigeria. For instance, Adegbite et al. (2021) found that increased credit to the manufacturing sector positively correlates with industrial output, while credit to SMEs significantly contributes to job creation and economic stability. Furthermore, the agricultural sector's access to credit has been linked to improved productivity and income levels among farmers, thereby enhancing overall economic growth (Ojo & Ogunleye, 2022).

This paper aims to explore the theory of financial intermediation and its relevance to the impact of bank sector credit allocation on industrial growth in Nigeria. By examining the specific contributions of credit to the manufacturing sector, agriculture, SMEs, mining and quarrying, general commerce and real estate and construction, this study seeks to provide insights into the effectiveness of financial intermediation in promoting sustainable economic development in Nigeria.

Empirical Review

Nwankwo and Okafor (2022) investigate the role of credit to SMEs in promoting industrial growth in Nigeria. Mixed-method approach methodology was used and data from surveys and CBN data from 2010 to 2021. The data was analyzed with thematic analysis and regression. The findings revealed that credit to SMEs significantly boosts industrial growth and employment. Thus, SMEs are crucial for industrial development in Nigeria. Financial institutions should develop tailored products for SMEs.

Okwu and Okwu (2022) analyzed the impact of credit to the agricultural sector on food security and industrial growth. A quantitative research was used with data from CBN and NBS data from 2000 to 2021 and analyzed with regression analysis. The findings revealed that agricultural credit significantly enhances food security and industrial growth. The study concluded investment in agriculture is crucial for overall economic stability. The study recommended that increase credit facilities for agricultural development.

Nwankwo and Ibe (2022) analyzed the impact of bank credit on the growth of the agricultural sector in Nigeria. Methodology: Quantitative analysis, data was sourced from CBN and NBS data from 2000 to 2021 and analyzed with regression analysis. The findings revealed that agricultural credit has a significant positive effect on agricultural output. The study concluded that increased credit to agriculture is vital for economic growth. The study recommended that financial institutions should enhance credit access for farmers.

Ojo and Ojo (2021) examined the impact of bank credit on the growth of the manufacturing sector in Nigeria. Quantitative analysis using time series data from Central Bank of Nigeria (CBN) and National Bureau of Statistics (NBS) from 2000 to 2020 and analyzed with Ordinary Least Squares (OLS) regression. The findings revealed that bank credit significantly influences manufacturing output, with a positive relationship observed. Increased bank credit allocation to manufacturing can enhance industrial growth. Policies should encourage banks to increase credit to the manufacturing sector.

Ibe and Okeke (2021) explored the relationship between bank credit allocation and industrial growth in Nigeria. The panel data analysis was sourced from CBN and NBS data from 2000 to 2020 and analyzed with fixed effects model. A strong positive correlation exists between bank credit and

industrial growth. The study concluded that bank credit is a critical driver of industrial growth. The study recommended that financial policies should focus on increasing credit to key industrial sectors.

Eze and Nwankwo (2021) assessed the impact of mining sector credit on industrial growth in Nigeria. Quantitative analysis was used and the data was sourced from CBN and NBS data from 2000 to 2020. The data was analyzed with time series analysis. The finding showed that Mining sector credit has a positive effect on industrial output. Thus, it was concluded that investment in mining can drive industrial growth. Policies should promote credit access for the mining sector.

Uche and Nwankwo (2021) assessed the impact of credit to SMEs on economic growth in Nigeria. Methodology: Descriptive and inferential statistics, data from CBN and NBS data from 2005 to 2020 and analyzed with OLS regression. The findings revealed that SME credit has a significant positive effect on economic growth. The study concluded that SMEs are vital for economic and industrial growth. The study recommended that financial institutions should enhance credit access for SMEs.

Eze and Afolabi (2021) investigated the impact of real estate credit on industrial growth in Nigeria. Methodology: Quantitative research design, data sourced from CBN and NBS data from 2005 to 2020 and analyzed with time series analysis. The findings revealed that real estate credit significantly contributes to industrial growth. The study concluded that real estate development is essential for industrial expansion. The study recommended that encourage banks to increase lending to the real estate sector.

Research Design

This study is adopted the ex-post facto research design. This research design was used because the researcher has no control over the data (secondary data) and as such

cannot manipulate them because the event that brought about the data has already taken place. Ex-post facto research design involves the ascertaining of the impact of past factors on the present happening or event. Ex-post facto research design is concerned with the existence of two variables: independent and dependent variables. It is also used because it is structured to find, describe and interpret a social phenomenon which this study is aimed at.

Method of Data Collection

The method of data collection that was used in this study is the secondary sources of data (time series data), from the CBN Statistical Bulletin for the period 1990-2023 (34years). Also, the CBN Statistical Bulletin was selected as source of data collection because it is the most reliable and accurate aggregates sources of data for the study.

Method of Data Analysis

The study conducted the descriptive statistics and the correlation analysis was used to determine the nature of relationship between the independent [Credit to Manufacturing Sector (CMS), Credit to Agricultural Sector (CAS), Credit to Mining and Quarrying Sector (CMQS), Credit to Real Estate and Construction sector (CRECS), Credit to General Commerce Sector (CGCS) and Credit to Small and Medium Scale Enterprises (CSMSE)] and dependent (Industrial Output (IO)) variables, several diagnostic tests were conducted, follow with unit roots test for the time series data in order to ascertain if they are stationary or not and Johansen Cointegration test. While the hypotheses were tested with ordinary least squares regression analysis which was used through the regression model, using the statistical software, E-VIEWS 9.0. This is the appropriate measures taken to analyze data as regards the study time series analysis.

Model Specification

The model for this study was adopted from the work of Ogunleye and Adebayo (2021) and was modified to suit the variables of this study. The model which specifies that industrial growth in Nigeria [proxy by Industrial Output (IO)] is significantly influenced by the bank sector credit allocation measures; Credit to Manufacturing Sector (CMS), Credit to Agricultural Sector (CAS), Credit to Mining and Quarrying Sector (CMQS), Credit to Real Estate and Construction sector (CRECS), Credit to General Commerce Sector (CGCS) and Credit to Small and Medium Scale Enterprises (CSMSE) were formulated as follows;

$$IO = f(CMS, CAS, CMQS, CRECS, CGCS, CSMSE)$$

$$IO = \beta_0 + \beta_1 CRH + \beta_2 LRH + \beta_3 MRH + \beta_4 DRH + \beta_5 DRH + \beta_6 DRH + U$$

Where:

IO = Industrial Output, β_0 = Constant Term, β_1 = Coefficient of Credit to Manufacturing Sector, CMS = Credit to Manufacturing Sector, β_2 = Coefficient of Credit to Agricultural Sector, CAS = Credit to Agricultural Sector, β_3 = Coefficient of Credit to Mining and Quarrying Sector, CMQS = Credit to Mining and Quarrying Sector β_4 = Coefficient of Credit to Real Estate and Construction sector, CRECS = Credit to Real Estate and Construction sector, β_5 = Coefficient of Credit to General Commerce Sector, CGCS = Credit to General Commerce Sector, β_6 = Coefficient of Credit to Small and Medium Scale Enterprises, CSMSE = Credit to Small and Medium Scale Enterprises, U = Disturbance Term (other variable not mentions in the model)

The apriori expectation is $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6 > 0$

Table 3.1: Variable Descriptions

Variables	Category of Variables	Description
Industrial Output (IO)	Dependent Variable	Industrial Output as calculated in CBN Statistical Bulletin
Credit to Manufacturing Sector (CMS)	Independent Variable	Credit to Manufacturing Sector as calculated in CBN Statistical Bulletin
Credit to Agricultural Sector (CAS)	Independent Variable	Credit to Agricultural Sector as calculated in CBN Statistical Bulletin.
Credit to Mining and Quarrying Sector (CMQS)	Independent Variable	Credit to Mining and Quarrying Sector as calculated in CBN Statistical Bulletin
Credit to Real Estate and Construction sector (CRECS)	Independent Variable	Credit to Real Estate and Construction sector as calculated in CBN Statistical Bulletin
Credit to General Commerce Sector (CGCS)	Independent Variable	Credit to General Commerce Sector as calculated in CBN Statistical Bulletin
Credit to Small and Medium Scale Enterprises (CSMSE)	Independent Variable	Credit to Small and Medium Scale Enterprises as calculated in CBN Statistical Bulletin

Source: Researcher Basis of Computation, 2024.

Data Presentation

The data for the analysis is presented below;

Table 4.1a: Data for the Independent and Dependent Variables of the Study

Years	Independent Variables						Dependent Variable
	CMS (N'Billion)	CAS (N'Billion)	CMQS (N'Billion)	CRECS (N'Billion)	CGCS (N'Billion)	CSME (N'Billion)	IO (N'Billion)
1990	7.9	4.2	0.4	3.6	4.8	16781.01	4118.77
1991	10.9	5	0.5	4.1	5	18772.1	5227.38
1992	15.4	7	0.8	5.4	7.3	20400	6291.53
1993	23.1	10.8	1.4	25.31	13.5	15462.9	7291.05
1994	34.8	17.8	2.3	34.53	7.6	20552.5	8137.26
1995	58.1	25.3	12.1	26.71	19.4	32374.5	9156.12
1996	72.2	33.3	15	34.47	33	42302.1	10402.19
1997	82.8	27.9	20.6	31.35	16.4	40844.3	10599.7
1998	96.7	27.2	22.8	26.43	29.8	42260.7	10641.26
1999	115.8	31	24.7	52.69	18.8	46824	10201.81
2000	141.3	41	32.3	66.55	25.3	44542.3	10962.84
2001	206.9	55.8	70.5	75.19	34.5	52428.4	11576.32
2002	233.5	59.8	70.2	45.87	26.7	82368.4	11725.42
2003	294.3	62.1	96	44.81	34.5	90176.5	13151.23
2004	332.1	67.7	131.1	36.18	31.3	54981.2	13382.86
2005	352	48.6	172.5	65.61	26.4	50672.6	13609.76
2006	445.8	49.4	251.5	89.78	52.7	25713.7	13342.47
2007	487.6	149.6	490.7	117.16	66.6	41100.4	13085.27
2008	932.8	106.4	846.9	466.8	220.1	13512.2	12817.79
2009	993.5	135.7	1190.73	778.1	1245.1	16366.49	13138.95
2010	987.6	128.4	1178.1	670.3	943.2	12550.3	13826.43
2011	1053.21	255.21	1295.3	453.5	791.9	15611.7	14986.62
2012	1068.34	316.36	1771.5	539.8	756.6	13863.46	15350.45
2013	1179.69	343.7	2155.86	726.9	766.7	15353.04	15682.46
2014	1647.45	478.91	18.21	556.19	1045.19	16.07	16742.15
2015	1736.19	449.31	11.71	531.74	985.69	12.95	16366.66
2016	2215.74	525.95	21.28	631.09	984.9	10.75	14918.15
2017	2171.37	528.24	25.25	657.08	1023.78	10.75	15238.28
2018	2230.15	610.15	20.69	614.51	1076.72	44.82	15523.43
2019	2622.54	772.38	11.31	723.15	1247.37	123.93	15882.35
2020	3191.37	1049.68	11.88	965.19	1343.59	62.51	14953.72
2021	4089.29	1457.82	23.64	1069.5	1708.38	83.74	14883.774
2022	5566.43	1812.47	30.09	1164.6	2214.41	71.89	14195.583
2023	7732.46	2255.36	41.89	1819.28	3558.74	94.46	14298.466

Source: Central Bank of Nigeria (CBN) Statistical Bulletin, 1990-2023

In the bids to conform the data uniformity due to natural logarithm of base ten in Table 4.1b to disparity in datasets, the data was subjected below:

Table 4.1b: Data for the Independent and Dependent Variables of the Study

Years	Independent Variables						Dependent Variable
	LogCMS	LogCAS	LogCMQS	LogCRECS	LogCGCS	LogCSME	LogIO
1990	0.897627	0.623249	-0.39794	0.556303	0.681241	4.224818	3.614768
1991	1.037426	0.69897	-0.30103	0.612784	0.69897	4.273513	3.718284
1992	1.187521	0.845098	-0.09691	0.732394	0.863323	4.30963	3.798756
1993	1.363612	1.033424	0.146128	1.403292	1.130334	4.189291	3.86279
1994	1.541579	1.25042	0.361728	1.538197	0.880814	4.312865	3.910478
1995	1.764176	1.403121	1.082785	1.426674	1.287802	4.510203	3.961711
1996	1.858537	1.522444	1.176091	1.537441	1.518514	4.626362	4.017125
1997	1.91803	1.445604	1.313867	1.496238	1.214844	4.611131	4.025294
1998	1.985426	1.434569	1.357935	1.422097	1.474216	4.625937	4.026993
1999	2.063709	1.491362	1.392697	1.721728	1.274158	4.670469	4.008677
2000	2.150142	1.612784	1.509203	1.823148	1.403121	4.648773	4.039923
2001	2.31576	1.746634	1.848189	1.87616	1.537819	4.719567	4.063571
2002	2.368287	1.776701	1.846337	1.661529	1.426511	4.915761	4.069128
2003	2.46879	1.793092	1.982271	1.651375	1.537819	4.955093	4.118966
2004	2.521269	1.830589	2.117603	1.558469	1.495544	4.740214	4.126549
2005	2.546543	1.686636	2.236789	1.81697	1.421604	4.704773	4.13385
2006	2.64914	1.693727	2.400538	1.95318	1.721811	4.410165	4.125236
2007	2.688064	2.174932	2.690816	2.068779	1.823474	4.613846	4.116783
2008	2.969789	2.026942	2.927832	2.669131	2.34262	4.130726	4.107813
2009	2.997168	2.13258	3.075813	2.891035	3.095204	4.213956	4.118561
2010	2.994581	2.108565	3.071182	2.826269	2.974604	4.098654	4.14071
2011	3.022515	2.406898	3.11237	2.656577	2.89867	4.19345	4.175704
2012	3.028709	2.500182	3.248341	2.732233	2.878866	4.141872	4.186121
2013	3.071768	2.53618	3.333621	2.861475	2.884625	4.186194	4.195414
2014	3.216812	2.680254	1.26031	2.745223	3.019195	1.206016	4.223811
2015	3.239597	2.652546	1.068557	2.725699	2.99374	1.11227	4.21396
2016	3.345519	2.720944	1.327972	2.800091	2.993392	1.031408	4.173715
2017	3.336734	2.722831	1.402261	2.817618	3.010207	1.031408	4.182936
2018	3.348334	2.785437	1.31576	2.788529	3.032103	1.651472	4.190988
2019	3.418722	2.887831	1.053463	2.859228	3.095995	2.093176	4.200915
2020	3.503977	3.021057	1.074816	2.984613	3.128267	1.795949	4.174749
2021	3.611648	3.163704	1.373647	3.029181	3.232584	1.922933	4.172713
2022	3.745577	3.258271	1.478422	3.066177	3.345258	1.856668	4.152153
2023	3.888318	3.353216	1.62211	3.2599	3.551296	1.975248	4.155289

Source: Researcher Excel Computation, 2024.

Data Analysis

Table 4.2: Descriptive Statistics

	LOGIO	LOGCMS	LOGCAS	LOGCMQS	LOGCRECS	LOGCGCS	LOGCSME
Mean	4.073660	2.590159	2.030023	1.600399	2.134404	2.113781	3.608936
Median	4.122101	2.668602	1.928765	1.397479	2.010979	1.772642	4.219387
Maximum	4.223811	3.888318	3.353216	3.333621	3.259900	3.551296	4.955093
Minimum	3.614768	0.897627	0.623249	-0.397940	0.556303	0.681241	1.031408
Std. Dev.	0.145104	0.810886	0.744599	0.998358	0.767400	0.924403	1.373496
Skewness	-1.586315	-0.444058	-0.021804	-0.042798	-0.383401	0.007340	-0.904833
Kurtosis	5.022170	2.235229	2.107518	2.538469	2.042247	1.403766	2.069177
Observations	34	34	34	34	34	34	34

Source: EVIEW, 9.0 Outputs, 2024.

Table 4.2 above is the presentation of the descriptive statistics. The mean value for the CMS recorded a mean value of 4.0737 with a standard deviation of 0.8109. Also, CAS, recorded a mean of 2.0300 and standard deviation of 0.7446, CMQS recorded that a mean of 1.6004 with a standard deviation of 0.9984, CRECS recorded that a mean of 2.1344 with a standard deviation of 0.7446, CGCS recorded that a mean of 2.1138 with a standard deviation of 0.9244 and CSME recorded that a mean of 3.6089 with a standard deviation of 1.3735 while IO recorded a mean of 4.0737 and standard deviation of 0.1451. Since the standard

deviations for all the variables are greater than respectively means, it shows that the data are widely dispersed.

The normal distribution has a kurtosis of three, which indicates that the distribution has neither fat nor thin tails. Consequently, if an observed distribution has a kurtosis greater than three, the distribution has heavy tails when compared to the normal distribution. Since some the kurtosis coefficients in Table 4.2 are lesser than 3, this shows that CMS, CAS, CMQS, CRECS, CGCS and CSMSE have thin tails while IO is thick tails because the kurtosis is greater than 3 when compared to the normal distribution.

Table 4.3: Correlation Matrix

	LOGIO	LOGCMS	LOGCAS	LOGCMQS	LOGCRECS	LOGCGCS	LOGCSME
LOGIO	1.000000						
LOGCMS	0.707610	1.000000					
LOGCAS	0.753714	0.776909	1.000000				
LOGCMQS	0.681783	0.540919	0.413261	1.000000			
LOGCRECS	0.762534	0.762345	0.747162	0.551937	1.000000		
LOGCGCS	0.700033	0.744429	0.747608	0.457930	0.768682	1.000000	
LOGCSME	-0.468222	-0.677350	-0.749634	0.183616	-0.665511	-0.741507	1.000000

Source: EVIEW, 9.0 Outputs, 2024.

The correlation test is presented in Table 4.3 and it shows the absence of multi-co linearity among the variables since the correlation values are less than 0.7. Furthermore, the

result shows the explanatory variables namely; CMS, CAS, CMQS, CRECS and CGCS has positive strong correlation with IO in Nigeria except for SME.

Table 4.4: Variance Inflation Factors Multicollinearity Test

Variance Inflation Factors			
Date: 11/28/24 Time: 20:24			
Sample: 1990 2023			
Included observations: 34			
Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.022918	32.20971	NA
LOGCMS	0.006503	67.14856	5.832757
LOGCAS	0.005867	38.41487	4.436861
LOGCMQS	0.000865	42.88064	2.175591
LOGCRECS	0.003554	25.61028	8.255006
LOGCGCS	0.002170	16.15713	5.229614
LOGCSME	0.000533	11.13318	3.172221

Source: EVIEW, 9.0 Outputs, 2024.

Since the data for the study are annual time series, the multicollinearity test was conducted to ascertain if the data contained multicollinearity, this is presented in Table 4.4 above. Multicollinearity occurs in a data set when two or more independent variables in multiple regression models are highly correlated. In order to ensure that the results of this study are valid, the variance inflation factor (VIF) computed as shown in Table 4.3. Furthermore, the Centered Variance Inflation

Factor (CVIF) statistics for all the independent variables consistently lies between 5.8328, 4.4369, 2.1756, 8.2550, 5.2296 and 3.1722 for CMS, CAS, CMQS, CRECS, CGCS and CSMSE respectively. This indicates the absence of multicollinearity problems among the variables under investigation because the cut off value of VIF is 10. Values of VIF that exceed 10 are often regarded as indicating multicollinearity.

Table 4.5a: Breusch-Godfrey Serial Correlation LM Test			
F-statistic	4.266370	Prob. F(2,25)	0.0755
Obs*R-squared	8.651639	Prob. Chi-Square(2)	0.0632

Source: E-VIEW, 9.0 Outputs, 2024.

Prior to estimating the models, residuals of the variables were ascertained to check for the presence of serial correlation. This was done using the serial correlation LM test. The serial correlation LM test in Table 4.5a details that there is no element of serial correlation in the models owing to the fact that the p-values of the f-statistics are insignificant at 5% level of significance.

Table 4.5b: Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	1.048875	Prob. F(6,27)	0.4166
Obs*R-squared	6.426842	Prob. Chi-Square(6)	0.3771
Scaled explained SS	5.281972	Prob. Chi-Square(6)	0.5082

Source: E-VIEW, 9.0 Outputs, 2024.

The situation in which the variability of a variable is unequal across the range of values of a second variable that predicts it leads to problem of heteroskedasticity. To ensure that there is homoscedasticity in the model

estimation, the heteroskedasticity test via the Breusch-Pagan-Godfrey was performed. With the result there is no problem of heteroskedasticity in the models as the p-values of the f-statistics are insignificant at 5% significance level.

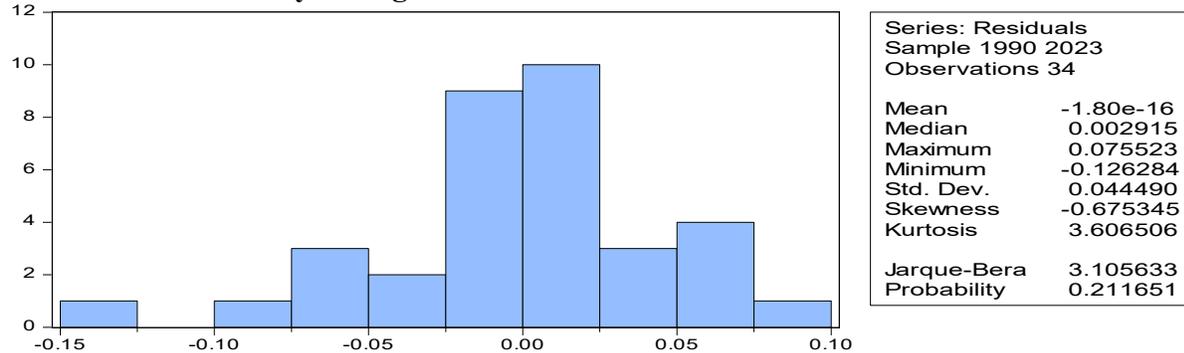
Table 4.5c: Ramsey RESET Test			
Equation: UNTITLED			
Specification: LOGIO C LOGCMS LOGCAS LOGCMQS LOGCRECS			
LOGCGCS LOGCSME			
Omitted Variables: Squares of fitted values			
	Value	Df	Probability
t-statistic	8.541065	26	0.1625
F-statistic	72.94978	(1, 26)	0.1781
Likelihood ratio	45.44154	1	0.2718
F-test summary:			
	Sum of Sq.	Df	Mean Squares
Test SSR	0.048155	1	0.088155
Restricted SSR	0.065318	27	0.072419
Unrestricted SSR	0.017163	26	0.060660

Source: E-VIEW, 9.0 Outputs, 2024

From the Table 4.4c above, it confirms that the Durbin Watson stat that our data has no traits of autocorrelation. Indicates that the model is homoskedastic since the probability

values of three parameters are greater than 0.05 level of significance. Ramsey test result reveals that our model is correctly specified and is stable for regression analysis.

Table 4.5d: Normality Histogram Test



Source: E-VIEW 9.0 Output, 2024.

The test of residuals for normality was conducted to assess the distribution normality of the model residuals. When residuals are not

normally distributed, it denotes the presence of significant outliers in the data which affects the standard errors and then the significance

levels of the coefficients. From the test result, it indicates that the residuals are normally distributed as the histogram assumes a bell-shape and the J-B statistic probability value is 0.3556 which is greater than 0.05(5%), this forms the premise to reject the null hypotheses that the residuals are not normally distributed.

Augmented Dickey-Fuller (ADF) Unit Root Test

Testing for the existence of unit roots is a principal concern in the study of time series

models and co-integration. The rationale behind this test is to avoid the problem of spurious regression which is commonly associated with time series data. The presence of a unit root implies that the time-series data under investigation is non-stationary; while the absence of a unit root shows that the stochastic process is stationary. The unit root test was conducted using the Augmented Dickey-Fuller (ADF) Unit root test as presented in table 4.6 below:

Table 4.6: Augmented Dickey-Fuller Unit root Test ADF Test @ Level

Group unit root test: Summary				
Series: LOGIO, LOGCMS, LOGCAS, LOGCMQS, LOGCRECS, LOGCGCS, LOGCSME				
Date: 11/28/24 Time: 20:41				
Sample: 1990 2023				
Exogenous variables: Individual effects				
Automatic selection of maximum lags				
Automatic lag length selection based on SIC: 0				
Newey-West automatic bandwidth selection and Bartlett kernel				
Balanced observations for each test				
			Cross-	
Method	Statistic	Prob.**	Sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-5.67909	0.0785	7	231
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-2.45209	0.0971	7	231
ADF - Fisher Chi-square	41.4518	0.0782	7	231
PP - Fisher Chi-square	37.6104	0.0776	7	231
** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.				

ADF Test @ 1st Diff.

Group unit root test: Summary				
Series: LOGIO, LOGCMS, LOGCAS, LOGCMQS, LOGCRECS, LOGCGCS, LOGCSME				
Date: 11/28/24 Time: 20:42				
Sample: 1990 2023				
Exogenous variables: Individual effects				
Automatic selection of maximum lags				
Automatic lag length selection based on SIC: 0				
Newey-West automatic bandwidth selection and Bartlett kernel				
Balanced observations for each test				
			Cross-	
Method	Statistic	Prob.**	Sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-10.9328	0.0000	7	224
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-10.5254	0.0000	7	224
ADF - Fisher Chi-square	116.110	0.0000	7	224
PP - Fisher Chi-square	118.173	0.0000	7	224
** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.				

Source: E-VIEW, 9.0 Outputs, 2024.

The summary of the ADF unit root test output in table 4.5, above revealed that all the variables under investigation i.e. IO, CMS, CAS, CMQS, CRECS, CGCS and CSMSE are not stationary at level but contain unit root test at their first difference 1(1). Evidence of this could be seen from the value of their respective ADF statistics which is more than

the critical value at 5%. Moreover, additional evidence of stationary series could also be seen from the p-value for all variables which is less than 5% level of significance greater than 95% confidence level. They all attained stationarity at first difference i.e. at order one, hence, the data are suitable for regression.

Table 4.7: Johansen Cointegration Test

Date: 11/28/24 Time: 20:46																																																	
Sample (adjusted): 1992 2023																																																	
Included observations: 32 after adjustments																																																	
Trend assumption: Linear deterministic trend																																																	
Series: LOGIO LOGCMS LOGCAS LOGCMQS LOGCRECS LOGCGCS LOGCSME																																																	
Lags interval (in first differences): 1 to 1																																																	
Unrestricted Cointegration Rank Test (Trace)																																																	
<table border="1"> <thead> <tr> <th>Hypothesized</th> <th></th> <th>Trace</th> <th>0.05</th> <th></th> </tr> <tr> <th>No. of CE(s)</th> <th>Eigenvalue</th> <th>Statistic</th> <th>Critical Value</th> <th>Prob.**</th> </tr> </thead> <tbody> <tr> <td>None *</td> <td>0.892332</td> <td>191.4808</td> <td>125.6154</td> <td>0.0000</td> </tr> <tr> <td>At most 1 *</td> <td>0.697217</td> <td>120.1622</td> <td>95.75366</td> <td>0.0004</td> </tr> <tr> <td>At most 2 *</td> <td>0.685756</td> <td>81.93061</td> <td>69.81889</td> <td>0.0040</td> </tr> <tr> <td>At most 3</td> <td>0.567346</td> <td>54.88789</td> <td>47.85613</td> <td>0.0125</td> </tr> <tr> <td>At most 4</td> <td>0.279271</td> <td>30.07776</td> <td>29.79707</td> <td>0.0403</td> </tr> <tr> <td>At most 5</td> <td>0.198308</td> <td>17.58027</td> <td>15.49471</td> <td>0.0393</td> </tr> <tr> <td>At most 6</td> <td>0.016274</td> <td>4.525040</td> <td>3.841466</td> <td>0.0487</td> </tr> </tbody> </table>					Hypothesized		Trace	0.05		No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**	None *	0.892332	191.4808	125.6154	0.0000	At most 1 *	0.697217	120.1622	95.75366	0.0004	At most 2 *	0.685756	81.93061	69.81889	0.0040	At most 3	0.567346	54.88789	47.85613	0.0125	At most 4	0.279271	30.07776	29.79707	0.0403	At most 5	0.198308	17.58027	15.49471	0.0393	At most 6	0.016274	4.525040	3.841466	0.0487
Hypothesized		Trace	0.05																																														
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**																																													
None *	0.892332	191.4808	125.6154	0.0000																																													
At most 1 *	0.697217	120.1622	95.75366	0.0004																																													
At most 2 *	0.685756	81.93061	69.81889	0.0040																																													
At most 3	0.567346	54.88789	47.85613	0.0125																																													
At most 4	0.279271	30.07776	29.79707	0.0403																																													
At most 5	0.198308	17.58027	15.49471	0.0393																																													
At most 6	0.016274	4.525040	3.841466	0.0487																																													
Trace test indicates 3 cointegrating eqn(s) at the 0.05 level																																																	
* denotes rejection of the hypothesis at the 0.05 level																																																	
**MacKinnon-Haug-Michelis (1999) p-values																																																	
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)																																																	
<table border="1"> <thead> <tr> <th>Hypothesized</th> <th></th> <th>Max-Eigen</th> <th>0.05</th> <th></th> </tr> <tr> <th>No. of CE(s)</th> <th>Eigenvalue</th> <th>Statistic</th> <th>Critical Value</th> <th>Prob.**</th> </tr> </thead> <tbody> <tr> <td>None *</td> <td>0.892332</td> <td>71.31857</td> <td>46.23142</td> <td>0.0000</td> </tr> <tr> <td>At most 1</td> <td>0.697217</td> <td>38.23163</td> <td>37.07757</td> <td>0.0395</td> </tr> <tr> <td>At most 2 *</td> <td>0.685756</td> <td>37.04272</td> <td>33.87687</td> <td>0.0202</td> </tr> <tr> <td>At most 3</td> <td>0.567346</td> <td>28.81014</td> <td>27.58434</td> <td>0.0426</td> </tr> <tr> <td>At most 4</td> <td>0.279271</td> <td>22.47973</td> <td>21.13162</td> <td>0.0487</td> </tr> <tr> <td>At most 5</td> <td>0.198308</td> <td>17.58027</td> <td>15.49471</td> <td>0.0393</td> </tr> <tr> <td>At most 6</td> <td>0.016274</td> <td>4.525040</td> <td>3.841466</td> <td>0.0487</td> </tr> </tbody> </table>					Hypothesized		Max-Eigen	0.05		No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**	None *	0.892332	71.31857	46.23142	0.0000	At most 1	0.697217	38.23163	37.07757	0.0395	At most 2 *	0.685756	37.04272	33.87687	0.0202	At most 3	0.567346	28.81014	27.58434	0.0426	At most 4	0.279271	22.47973	21.13162	0.0487	At most 5	0.198308	17.58027	15.49471	0.0393	At most 6	0.016274	4.525040	3.841466	0.0487
Hypothesized		Max-Eigen	0.05																																														
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**																																													
None *	0.892332	71.31857	46.23142	0.0000																																													
At most 1	0.697217	38.23163	37.07757	0.0395																																													
At most 2 *	0.685756	37.04272	33.87687	0.0202																																													
At most 3	0.567346	28.81014	27.58434	0.0426																																													
At most 4	0.279271	22.47973	21.13162	0.0487																																													
At most 5	0.198308	17.58027	15.49471	0.0393																																													
At most 6	0.016274	4.525040	3.841466	0.0487																																													
Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level																																																	
* denotes rejection of the hypothesis at the 0.05 level																																																	
**MacKinnon-Haug-Michelis (1999) p-values																																																	

Source: E-VIEW, 9.0 Outputs, 2024.

Table 4.7 above revealed that the result of the multivariate cointegration test by Johansen and Juselius cointegration technique reveal that both the trace statistic and the Maximum Eigenvalue statistic shows evidence of two cointegration relationship (at None and at most 1), where the values of the trace statistic

and the Maximum Eigenvalue statistic is greater than their respective critical values at 5% level of significance level. This result conforms to the existence of a stable long-run relationship between IO and CMS, CAS, CMQS, CRECS, CGCS and CSMSE.

Table 4.8: Multiple Regression Analysis

Dependent Variable: LOGIO				
Method: Least Squares				
Date: 11/28/24 Time: 20:21				
Sample: 1990 2023				
Included observations: 34				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.880061	0.151387	25.63007	0.0000
LOGCMS	0.204128	0.080641	2.531318	0.0276
LOGCAS	0.171547	0.076594	2.239692	0.0385
LOGCMQS	0.082890	0.029405	2.818926	0.0089
LOGCRECS	0.024758	0.059616	0.415292	0.6812
LOGCGCS	0.121803	0.046585	2.614656	0.0144
LOGCSME	-0.041393	0.023092	-1.792537	0.0843
R-squared	0.905993	Mean dependent var		4.073660
Adjusted R-squared	0.885103	S.D. dependent var		0.145104
S.E. of regression	0.049185	Akaike info criterion		-3.005205
Sum squared resid	0.065318	Schwarz criterion		-2.690955
Log likelihood	58.08849	Hannan-Quinn criter.		-2.898037
F-statistic	43.36879	Durbin-Watson stat		1.937917
Prob(F-statistic)	0.000000			

Source: EVIEW, 9.0 Outputs, 2024.

The multiple regression results in Table 4.8, the coefficient of CMS are 0.2041 with a t-value of 2.5313 and an associated p-value (sig. value) is 0.0276. This suggests that CMS have a positive significant effect on IO in Nigeria. This relationship is significant given the fact that the p-value of 0.0276 is lesser than 0.05 (5%) level significance, hence, the alternate hypothesis is accepted and null hypothesis is rejected; which says that CMS does not have significant effect on IO in Nigeria. The coefficient of CMS is 0.2041, which imply that CMS has a positive trend with IO in Nigeria. One percent (1%) movement in CMS would lead to 20.41% increase in IO in Nigeria. Empirical studies have consistently shown that credit to the manufacturing sector has a positive and significant impact on industrial performance. For instance, a study by Akinlo and Egbetunde (2021) found that increased credit to manufacturing firms enhances their capacity to invest in technology and expand production, leading to

higher output levels. This aligns with the supply-leading hypothesis, which suggests that when financial institutions provide adequate credit, manufacturing firms can increase their production capabilities, thereby stimulating overall industrial growth. Moreover, the manufacturing sector often serves as a backbone for economic development, creating jobs and fostering innovation. According to Ojo and Ojo (2022), the multiplier effect of credit to manufacturing extends beyond the sector itself, positively influencing related industries and contributing to a more robust industrial ecosystem.

Also, the multiple regression results in Table 4.8, the CAS coefficient of 0.1715 with a t-value of 2.2397 and an associated p-value (sig. value) of 0.0385. This suggests that CAS have a positive significant effect on IO in Nigeria. This relationship is significant given the fact that the p-value of 0.0385 is lesser than to 0.05 (5%) level significance, thus, the null

hypothesis which says that CAS does not have significant effect on IO in Nigeria is rejected and alternate hypothesis is accepted. The coefficient of CAS is 0.1715 which implies that CAS has a positive trend with IO in Nigeria. One percent (1%) movement in CAS with would lead to 17.15% increases in IO in Nigeria. The agricultural sector also demonstrates a positive significant effect on the industrial sector when provided with adequate credit. Research by Adeyemi and Ojo (2023) indicates that access to credit enables farmers to invest in better technologies and practices, which increases agricultural productivity. This, in turn, supplies raw materials to the manufacturing sector, thereby enhancing industrial output. The findings support the notion that a well-financed agricultural sector can lead to increased industrial activity, as it provides essential inputs for manufacturing processes. Furthermore, the agricultural sector's growth can lead to increased demand for manufactured goods, creating a symbiotic relationship between agriculture and industry. This relationship underscores the importance of financial intermediation in facilitating credit flow to agriculture, which is crucial for industrial development (Ogunleye & Adebayo, 2023).

More also, the multiple regression results in Table 4.8, the coefficient of CMQS is 0.0829 with a t-value of 2.8189 and an associated p-value (sig. value) is 0.0089. This suggests that CMQS have a positive significant effect on IO in Nigeria. This relationship is significant given the fact that the p-value of 0.0089 is lesser than 0.05 (5%) level significance; hence, the null hypothesis which says that MRH does not have significant effect on IO in Nigeria is rejected while the alternate hypothesis is accepted. The coefficient of CMQS is 0.0829 which implies that CMQS has a positive trend with IO in Nigeria. One percent (1%) movement in CMQS with would lead to 8.29% increases in IO in Nigeria.

Credit to the mining and quarrying sector has also been found to have a positive significant effect on the industrial sector. According to a study by Nwankwo and Eze (2022), increased investment in mining activities, supported by credit, leads to enhanced extraction capabilities and the availability of raw materials for manufacturing. This relationship is particularly important in resource-rich countries where the mining sector can significantly contribute to industrial growth. The findings suggest that financial intermediation plays a vital role in mobilizing resources for the mining sector, which, in turn, supports industrial activities. The ability of mining firms to access credit allows them to invest in advanced technologies and expand their operations, thereby increasing the supply of essential minerals and resources needed for industrial processes (Ibrahim & Adebayo, 2023).

Contrarily, the OLS regression result in Table 4.8, the coefficient of CRECS is 0.02476 with a t-value of 2.6147 and an associated p-value (sig. value) is 0.6812. This suggests that CRECS have a positive insignificant effect on IO in Nigeria. This relationship is insignificant given the fact that the p-value of 0.6812 is greater than 0.05 (5%) level significance, the null hypothesis which says that there is no significant relationship between CRECS and IO in Nigeria is accepted and the alternate hypothesis is rejected. In contrast, credit to the real estate and construction sector has been found to have an insignificant effect on the industrial sector. A study by Eze and Nwankwo (2023) suggests that while real estate and construction is vital for infrastructure development, its direct impact on industrial output is limited. The real estate and construction sector often operates on longer time frames and may not immediately translate into increased industrial activity. This finding raises questions about the allocation of credit within the economy and suggests that financial institutions may

need to prioritize sectors that have a more direct and immediate impact on industrial growth. The lack of significant effects from real estate and construction credit may indicate a misalignment in credit allocation strategies, which could hinder overall economic development (Akinyemi&Ogunleye, 2023).

Away further, the multiple regression results in Table 4.8, the CGCS coefficient of 0.1218 with a t-value of 2.6147 and an associated p-value (sig. value) of 0.0144. This suggests that CGCS have a positive significant effect on IO in Nigeria. This relationship is significant given the fact that the p-value of 0.0144 is lesser than to 0.05 (5%) level significance, thus, the null hypothesis which says that CGCS does not have significant effect on IO in Nigeria is rejected and alternate hypothesis is accepted. The coefficient of CGCS is 0.1218 which implies that CGCS has a positive trend with IO in Nigeria. One percent (1%) movement in CGCS with would lead to 12.18% increases in IO in Nigeria. The general commerce sector also exhibits a positive significant effect on the industrial sector. Research by Olaniyan and Akinyemi (2023) indicates that credit to commerce facilitates the distribution of manufactured goods, enhancing market access for industrial products. This increased accessibility can lead to higher sales volumes for manufacturers, thereby stimulating production and industrial growth. Moreover, the general commerce sector acts as a bridge between producers and consumers, and its growth can lead to increased demand for industrial goods. The findings highlight the importance of financial intermediation in ensuring that commerce-related businesses have access to credit, which is essential for maintaining a vibrant industrial sector (Ogunbiyi & Afolabi, 2023).

Finally, the OLS regression result in Table 4.8, the coefficient of CSME is -0.0414 with a t-value of -1.7925 and an associated p-value (sig. value) is 0.0843. This suggests that

CSME have a negative insignificant effect on IO in Nigeria. This relationship is insignificant given the fact that the p-value of 0.0843 is greater than 0.05 (5%) level significance, the null hypothesis which says that there is no significant relationship between CSME and IO in Nigeria is accepted and the alternate hypothesis is rejected. The coefficient of CSME is -0.0414 which implies that CSME has a negative trend with IO in Nigeria. One percent (1%) movement in CSME with would lead to 4.14% decrease in IO in Nigeria. Similarly, credit to small and medium-sized enterprises (SMEs) has shown insignificant effects on the industrial sector. Research by Ojo and Akinlo (2023) indicates that while SMEs are crucial for job creation and innovation, their limited access to credit often hampers their growth potential. The findings suggest that financial institutions may be hesitant to lend to SMEs due to perceived risks, leading to underinvestment in this sector. The insignificant impact of credit to SMEs on industrial performance highlights the need for targeted financial policies that enhance access to credit for these enterprises. By improving credit availability, SMEs can contribute more significantly to industrial growth, aligning with the principles of financial intermediation theory, which emphasizes the importance of directing funds to productive sectors (Nwankwo& Ibrahim, 2023).

Summary of Findings

Based on the findings in the previous chapter, it showed that:

1. CMS with an associated p-value (sig. value) is 0.0276. This suggests that CMS have a positive significant effect on IO in Nigeria. This relationship is significant given the fact that the p-value of 0.0276 is lesser than 0.05 (5%) level significance. Credit to the manufacturing sector showed a positive significant effect on industrial output. This indicates that increased financial resources

directed towards manufacturing activities enhance production capabilities, innovation, and overall industrial growth.

2. CAS with an associated p-value (sig. value) of 0.0385. This suggests that CAS have a positive significant effect on IO in Nigeria. This relationship is significant given the fact that the p-value of 0.0385 is lesser than 0.05 (5%) level significance. Similarly, credit to the agricultural sector also exhibited a positive significant effect on industrial output. This suggests that investments in agriculture not only boost food production but also contribute to industrial activities through agro-processing and supply chain enhancements.

3. CMQS with an associated p-value (sig. value) is 0.0089. This suggests that CMQS have a positive significant effect on IO in Nigeria. This relationship is significant given the fact that the p-value of 0.0089 is lesser than 0.05 (5%) level significance. The analysis found that credit to the mining and quarrying sector positively and significantly impacts industrial output. This highlights the importance of raw materials sourced from mining activities, which are crucial for various industrial processes.

4. CRECS with an associated p-value (sig. value) is 0.6812. This suggests that CRECS has positive insignificant effect on IO in Nigeria. This relationship is insignificant given the fact that the p-value of 0.6812 is greater than 0.05 (5%) level significance. In contrast, credit to the real estate and construction sector was found to have an insignificant effect on industrial output. This suggests that investments in real estate and construction do not directly translate into increased industrial productivity.

5. CGCS with an associated p-value (sig. value) is 0.0144. This suggests that CGCS have a positive significant effect on IO in Nigeria. This relationship is significant given the fact that the p-value of 0.0144 is lesser than 0.05 (5%) level significance. Credit to

the general commerce sector was found to have a positive significant effect on industrial output. This indicates that commerce plays a vital role in facilitating trade and distribution, which in turn supports industrial activities.

6. CSME with an associated p-value (sig. value) is 0.0843. This suggests that CSME has negative insignificant effect on IO in Nigeria. This relationship is insignificant given the fact that the p-value of 0.0843 is greater than 0.05 (5%) level significance. The study also revealed that credit to SMEs had an insignificant effect on industrial output. This finding raises questions about the capacity of SMEs to contribute to industrial growth despite their potential role in the economy.

Conclusion

This study examined the effect of bank sector credit allocation on industrial growth in Nigeria from the period of 1990 to 2023 (34years). Credit to Manufacturing Sector (CMS), Credit to Agricultural Sector (CAS), Credit to Mining and Quarrying Sector (CMQS), Credit to Real Estate and Construction sector (CRECS), Credit to General Commerce Sector (CGCS) and Credit to Small and Medium Scale Enterprises (CSMSE) as proxies for bank sector credit allocation while industrial growth proxied with Industrial Output (IO) in Nigeria. The study made use of aggregate secondary data from CBN Statistical Bulletin for the duration of the study. The study showed that targeted credit allocation to specific sectors, particularly manufacturing, agriculture, mining, and general commerce, is crucial for enhancing industrial output in Nigeria. The insignificant effects of credit to the real estate, construction, and SMEs sectors indicate a need for a more strategic approach to financing these areas to ensure they contribute effectively to industrial growth. In summary, the findings discussed highlight the critical role of credit allocation in influencing industrial performance. The positive

significant effects of credit to the manufacturing, agricultural, mining and quarrying, and general commerce sectors underscore the importance of financial intermediation in stimulating economic activity. Conversely, the insignificant effects of credit to the real estate and construction sector and SMEs suggest a need for more strategic credit allocation to maximize industrial growth. In the light of the findings, CMS, CAS, MQS and CGCS have significant effects on IO in Nigeria while CRECS and CSME do not have significant effect on IO in Nigeria. Hence, the study concluded that bank sector credit allocation have significant effect on industrial growth in Nigeria in Nigeria.

Recommendations

In line with the objectives and findings, we recommend that:

1. Policymakers should prioritize increasing credit access to the manufacturing sector to stimulate industrial growth. This can be achieved through favorable lending rates and incentives for financial institutions. The government should implement policies that encourage investment in the manufacturing and agricultural sectors, such as tax incentives and subsidies.
2. The government should implement programs that facilitate credit access for agricultural producers, ensuring a steady supply of raw materials for the manufacturing sector.

3. There should be a strategic focus on enhancing credit facilities for the mining and quarrying sector to boost mineral extraction and processing, which are vital for industrial inputs.

4. Financial institutions should develop tailored products that support the commerce sector, enhancing distribution networks and market access for industrial goods. Financial institutions should prioritize credit allocation to the manufacturing, agricultural, mining, and commerce sectors to stimulate industrial growth.

5. A review of credit policies for the real estate and construction sectors is necessary to align them more closely with industrial objectives, possibly by integrating industrial needs into infrastructure development plans. Encourage the diversification of credit sources for the real estate and construction sectors to explore innovative financing models that could enhance their impact on industrial output.

6. Initiatives aimed at strengthening SMEs should focus on improving their access to markets and technology, which could enhance their contribution to industrial output. Programs aimed at strengthening the capacity of SMEs should be developed to enhance their contribution to industrial output. This could include training, access to technology, and improved financing options.

References

- Adebayo, A. A., & Ojo, J. A. (2022). The impact of bank credit on the mining sector's contribution to industrial growth in Nigeria. *Journal of Economic Studies*, 49(3), 456-472.
- Adegbite, E. O., Akinola, O. S., & Ojo, J. A. (2021). Bank credit and industrial output in Nigeria: An empirical analysis. *Journal of Economic Studies*, 48(3), 567-580.
- Adeyemi, A. A., & Adebayo, A. (2020). Agricultural credit and productivity in Nigeria: An empirical analysis. *Agricultural Economics*, 51(2), 123-135.
- Afolabi, M. O. & Ogunleye, O. (2020). Real estate credit and industrial growth in Nigeria. *International Journal of Real Estate Studies*, 14(1), 45-60.
- Akanbi, M. O., & Ojo, J. A. (2021). The role of small and medium enterprises in economic development: Evidence from Nigeria. *International Journal of Business and Management*, 16(5), 1-12.
- Akinlo, A. E. & Egbetunde, T. (2021). Credit and industrial output in Nigeria: Evidence from manufacturing sector. *Journal of Economic Studies*, 48(3), 567-580.
- Akinyemi, A. A., & Ogunleye, O. S. (2023). The impact of construction sector credit on industrial performance: A Nigerian perspective. *Construction Management and Economics*, 41(2), 123-135.
- ANUKU, C.E.O and EHIEDI, Victor Chukwunweike (2007). Financing Micro-Industries in Nigeria for Sustainable Development. *Journal of Public Policy Alert/ Association for Public Policy Analysis (APPA)/ Aba. Abia State*. Pp.75-89. Vol. 1(1)
- Central Bank of Nigeria (CBN). (2022). *Annual report on the Nigerian banking sector*. CBN. <https://www.cbn.gov.ng>
- Deloitte (2022). Mining and metals: Financing the future. <https://www2.deloitte.com/global/en/pages/energy-and-resources/articles/mining-and-metals-financing-the-future.html>
- Diamond, D. W., & Dybvig, P. H. (2019). Bank runs, deposit insurance, and liquidity. *Journal of Political Economy*, 91(3), 401-419.
- Ehiedu Victor C (2015). Impact of Interest Rate Deregulation on Corporate Financial Strategies (CFS) of Manufacturing Industries in Nigeria. Ph.D Thesis, Department of Accounting, Banking and Finance, Delta State University, Abraka, Nigeria
- Ehiedu, Victor Chukwunweike. (2021). Policy Options for Nigeria on Fiscal Responsibility. *Journal of Finance, Governance and Strategic Studies*. Collaborative Research (CORE) Associates. Faculty of Humanities, Management and Social Sciences. Federal University, Wukari. Taraba State. Nigeria. Pp. 19-34, 4(2)
- Ehiedu, Victor Chukwunweike. (2021). Minimum Rediscount Rate and Credit Creation by Deposit Money Banks in Nigeria. *Nigerian Journal of Financial Research/ Department of Finance and Banking*. University of Port Harcourt. Pp. 80-93, 16(1)
- Ehiedu, Victor Chukwunweike. (2021). Determinants of Deposit Accumulation Strategies of Deposit Money Banks (DMBs) in Nigeria. *African Journal of Accounting, Finance and Marketing/ University of Port Harcourt Business School*. Pp. 32-54, 5(1)
- Ehiedu, Victor C and Ogbeta, Mercy (2014). An Investigation into the Internal Control System

- in the Banking Industry (A Case of Some Selected Banks in Asaba, Delta State. *European Journal of Business and Management*. ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online). International Institute for Science, Technology & Education, UK. Pp. 149-155, 6(9)
- Ehiedu, Victor C and Osiegbu P.I. (2014). Capital Structure and Performance Evaluation in Manufacturing Sector: A Case Study of Selected Quoted Companies in the Nigerian Stock Exchange (NSE). *Research and Journal of Finance and Accounting*. ISSN 2222-1697 (Paper) ISSN 2222-2847 (Online). International Institute for Science, Technology & Education, UK.
- Ehiedu, Victor C. (2014). The Impact of Liquidity on Profitability of Some Selected Companies. The Financial Statement Analysis (FSA) Approach. *Research and Journal of Finance and Accounting*. ISSN 2222-1697 (Paper) ISSN 2222-2847 (Online). International Institute for Science, Technology & Education, UK.. Pp. 81-90. 5(5)
- Ehiedu, Victor C, (2022). External Debt (ED) and Growth Nexus (GN) in Nigeria. *International Journal of Academic Management Science Research (IJAMSR)/. Academic Research World (IJARW)*. Pp. 58-68, 6(7).
- Ehiedu, Victor C. (2022). Monetary Jeopardy (MJ) and Nigeria's Deposit Money Bank Performance (DMBP) Relationship: ARDL Approach. *International Journal of Advanced Economics P*-ISSN: 2707-2134, E-ISSN: 2707-2142 DOI: 10.51594/ijae.v4i8.409
- Fair East Publishers. Pp. 180-198, 4(8)
- EHIEDU Victor C. (2023). Tax Returns and Development of Infrastructure: The Nigerian Experience. *Journal of Xidian University*. DOI <https://doi.org/10.37896/jxu17.2/028>. ISSN No. 1001-2400. University of Xidian Publications. Pp. 400-412. 17(2)
- EHIEDU Victor C. (2023). Trade Drivers and Balance of Payment Equilibrium in Nigeria: Pre and Post Covid-19 Era. *Journal of Xi'an University of Architecture & Technology*. . DOI: <https://doi.org/10.37896/JXAT15.3/31756>. ISSN No: 1006-7930. Xi'an University of Architecture & Technology. Pp. 77-96. 15(3)
- EHIEDU Victor C. (2023). Financial Innovation (FIs) and Performance of Deposit Money Banks (PMDBs) in Nigeria. *Innovations*. **19650256 (E) 12674982(P). 62 Rue Pierre Motte. Saint-Dizier. Champagne-Ardenne. France 44522**. Innovations Publications. Pp. 573-587. 72(03)
- Agbogun, O. E., and Ehiedu, V. C. (2022). Trade policy drivers and economic performance of OPEC Member States. *International Journal of Academic Accounting, Finance, and Management Research*, 6(8), 109-118.
- EHIEDU Victor C and Toria Gladys, (2022). Audit Indicators and Financial Performance of Manufacturing Firms in Nigeria. *Linguistics and Culture Review*. Pp. 14-41 6(S1). <https://doi.org/10.21744/lingcure.v6nS1.1887>. (Special Issue on Economics, Accounting and Management EAM). American Linguist Association. New York. USA.

- Ehiedu, V.C. and Obi, C.K, (2022). Efficient market hypothesis (emh) and the Nigerian stock Exchange in the midst of global financial crisis. *International Journal of Academic Management Science Research (IJAMSR)/. Academic Research World (IJARW)*. Pp. 263-273
- Ehiedu V.C and Imoagwu C.P, (2022). Effect of corporate diversification strategies on the financial performance of industrial goods in Nigeria. *International Journal of Applied Research in Social Sciences* P-ISSN: 2706-9176, E-ISSN: 2706-9184 DOI: 10.51594/ijarss.v4i8.390 Fair East Publishers
- Ehiedu Victor C, and Imoagwu Chika Priscilla, (2022). Firm specific determinants and its implication on listed oil and gas firms profitability in Nigeria. *International Journal of Advanced Economics* P-ISSN: 2707-2134, E-ISSN: 2707-2142 DOI: 10.51594/ijae.v4i7.389 Fair East Publishers
- Ehiedu V.C. (2022).Corporate Finance Alternative and Shareholders' Value Creation in Nigeria. *International Journal of Academic Accounting, Finance & Management Research(IJAAFMR)*. Research (IJAAFMR). *International Journals of Academic Research World (IJARW)*. Pp. 26-33, 6(6)
- Ehiedu, V. C. (2022). Analysis of micro prudential determinants of capital adequacy in deposit money banks. *International Journal of Management & Entrepreneurship Research*, 4(11), 398-415.
- Ehiedu, Victor C, (2022). Deficit financing (df) and sustainable growth (sg) in a small open economy. *International Journal of Academic Accounting, Finance & Management/ Research (IJAAFMR)*. *International Journal of Academic Research World (IJARW)*. Pp. 1-96(7)
- Ehiedu Victor C. and Brume-Ezewu, Christiana (2022). Corporate Attributes and Environmental Social And Governance (Esg) Reporting Among Listed Nigerian Firms: A Sector-Based Evaluation. *International Journal of Management (IJM)* Article ID: IJM_13_14_041 ISSN Print: 0976-6502 and ISSN Online: 0976-6510 © IAEME Publication. Pp.430-440, 11(1).
- Ehiedu Victor C. and Okorie, S. (2022). Exchange Rate Fluctuations and Inflation Rate in Nigeria: (1978 to 2019). *Journal of Finance, Governance and Strategic Studies/ Collaborative Research (CORE) Associates*. Faculty of Humanities, Management and Social Sciences Office Complex. Federal University Wukari. Taraba State. Pp.27-34. Vol. 5(1)
- Ehiedu Victor C. and Okorie, S. (2022). Non-Oil Exports Financing and DMBs' Performance in Nigeria. *Journal of Accounting, Finance & Management Discovery/ Collaborative Research (CORE) Associates*. Faculty of Humanities, Management and Social Sciences Office Complex. Federal University Wukari. Pp. 31-41. Vol. 5(1)
- Ehiedu, Victor Chukwunweike (2021). Modern Payment Options: A Panacea for Financial Inclusion in Nigeria. *Journal of Economics and Finance*. The Department of Economics, Faculty of Arts and Social Sciences/ Nigerian Defense Academy, Kaduna-Nigeria. Pp.277-285, Vol. 5(2)
- Ehiedu, Victor Chukwunweike (2021). Policy Options for Nigeria on Fiscal Responsibility. *Journal of Finance, Governance and Strategic Studies*. Collaborative Research (CORE) Associates.

- Faculty of Humanities, Management and Social Sciences. Federal University, Wukari. Taraba State. Nigeria. Pp. 19-34, Vol. 4(2)
- Ehiedu, Victor Chukwunweike (2020). Risk Management and Banks' Profitability Nexus in Nigeria. Journal of Economics and Finance. The Department of Economics, Faculty of Arts and Social Sciences/ Nigerian Defense Academy, Kaduna-Nigeria. Journal of Economics and Finance. The Department of Economics, Faculty of Arts and Social Sciences/ Nigerian Defense Academy, Kaduna-Nigeria. Pp. 65-71, Vol. 4(1)
- Ehiedu, Victor Chukwunweike (2020). Risk, Asset Management and Bank Performance in Nigeria. Journal of Business and Finance/Faculty of Business Administration/ Imo State University, Owerri. Pp.22-32, Vol. 11(3)
- Ehiedu, Victor Chukwunweike (2020). Insurance Sector Performance and Growth of Nigeria Economy. Journal of Business and Finance/Faculty of Business Administration/ Imo State University, Owerri. Pp. 39-49, Vol. 11(2)
- Ehiedu, Victor Chukwunweike (2020). Selected Monetary Instruments and Economic Growth Nexus in Nigeria. West African Journal of Business & Mgt. Sciences./Faculty of Business Administration, Imo State University, Owerri. Pp. 65-71, Vol. 4(1)
- EHIEDU, Victor Chukwunweike (2020). Estimation of Oil and Non-Oil Exports on Nigeria's Trade Balance. West African Journal of Business & Mgt. Sciences. Faculty of Business Administration, Imo State University, Owerri. Imo State. Pp.146-155. Vol. 9(1)
- EHIEDU, Victor Chukwunweike (2018). Agricultural Output and Nigeria Economic Growth Linkage. West African Journal of Business & Mgt. Sciences. Faculty of Business Administration, Imo State University, Owerri. Imo State. Pp. 232-240. Vol. 8(1)
- EHIEDU, Victor Chukwunweike and ONUOHA, Teresa E (2017). Effect of Some Macroeconomic Variables on Bank Profitability in Nigeria. Hezekiah University Journal of Management and Social Sciences. Faculty of Mgt & Social Sciences, Hezekiah University, Umudi. Umudi Imo State. Pp. 35-44
- EHIEDU, Victor Chukwunweike and Omojefe, Godfrey Oke (2016). A Comparative Performance Evaluation of the Nigerian Banking Sector in the Post 2005 Consolidations: The CAMEL Rating. Approach. West African Journal of Business & Mgt. Sciences. Faculty of Business Administration, Imo State University, Owerri. Imo State. Pp.196-203. Vol. 6(1)
- EHIEDU, Victor Chukwunweike and Omojefe, Godfrey Oke (2016). Impact of Capital Market on Foreign Direct Investment (FDI) in Nigeria. Rhema University Journal of Mgt. & Social Sciences/. College of Mgt. & Social Sciences Rhema University, Aba. Abia State. Pp. 284-292. Vol. 5(1)
- EHIEDU, Victor Chukwunweike (2011). Risk Management in Nigerian Deposit Money Banks: A Case Study of Selected Deposit Money banks in Delta State. ESUT Journal of Management Sciences/ Faculty of Management Sciences. Enugu State University of Science & Technology/Enugu. Enugu State. Pp.132-147. Vol. 6(1)
- EHIEDU, Victor Chukwunweike. (2011). The Effect of Profitability on Share Price in the

- Capital Market: A Case of Some Selected Banks in Asaba. ESUT Journal of Management Sciences/ Faculty of Management Sciences. Enugu State University of Science & Technology. Enugu. Enugu State. Pp.24-38. Vol. 6(2)
- Ehiedu, Victor C (2014). An Investigation into the Internal Control System in the Banking Industry (A Case of Some Selected Banks in Asaba, Delta State. *European Journal of Business and Management*. ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online). International Institute for Science, Technology & Education, UK. Pp. 149-155. 6(9)
- European Commission. (2021). *Annual report on European SMEs 2020/2021*. <https://ec.europa.eu/docsroom/documents/45381>
- Eze, C. U., & Afolabi, M. O. (2021). The impact of real estate credit on industrial growth in Nigeria. *Journal of Construction Management*, 12(4), 234-250.
- FAO. (2021). The state of food and agriculture 2020. <https://www.fao.org/publications/sdfa/2020/en/>
- Ibe, S. N., & Okeke, C. (2021). The role of credit to SMEs in promoting industrial growth in Nigeria. *Small Business Economics*, 56(1), 67-80.
- Ibrahim, M. (2023). Exploring qualitative dimensions of bank credit allocation and industrial growth in Nigeria. *International Journal of Business and Management Studies*, 15(1), 23-34.
- IFAD. (2022). *Financing rural development: The role of microfinance*. <https://www.ifad.org/en/web/latest/-/financing-rural-development>
- IMF (2022). *World economic outlook: Countering the cost-of-living crisis*. <https://www.imf.org/en/Publications/WEO/Issues/2022/10/11/world-economic-outlook-october-2022>
- International Council on Mining and Metals (2021). *Mining and sustainable development: A global perspective*. <https://www.icmm.com/en-gb/publications>
- McKinnon R. (1973). *Money and Capital in Economic Development*, (Washington DC: Brookings Institute).
- Nwankwo, C. E., & Ibrahim, M. A. (2023). SMEs and industrial growth: The role of financial intermediation in Nigeria. *Journal of Small Business Management*, 61(1), 78-95.
- Obi, C.K and Ehiedu, V.C., (2020). Testing the Efficacy of Wagner's Law on Public Expenditure in Nigeria. SciPap Scientific Papers of the University of Pardubice. Faculty of Economics and Administration. PP. 103-114
- OECD. (2021). *Financing SMEs and entrepreneurs 2021: An OECD report*. <https://www.oecd.org/cfe/smes/financing-smes-and-entrepreneurs-2021-9789264638780-en.htm>
- Ogunbiyi, O. (2022). Access to finance and the growth of small and medium enterprises in Nigeria: An empirical analysis. *Nigerian Journal of Economic and Financial Research*, 15(1), 23-34.
- Ogunleye, A. (2021). The impact of manufacturing sector financing on economic growth in Nigeria. *African Journal of Economic Review*, 9(1), 12-29.
- Ojo, J. A. (2020). The role of banks in financing industrial development in Nigeria: A review. *African Journal of Economic Review*, 8(1), 1-15.
- Okolie, Joseph O and Ehiedu, Victor C, (2023). Foreign Portfolio Investment Flow (Fpif) and Nigerian Stock Exchange (NSE). *International Journal of Management & Entrepreneurship Research P*-ISSN: 2664-3588, E-ISSN: 2664-

- 3596 DOI: 10.51594/ijmer.v5i2.441.
Fair East Publishers. Pp. 85-98, 5(2)
- Olaniyan, O. A., & Akinyemi, A. A. (2023). Credit to commerce and industrial performance: Evidence from Nigeria. *Journal of Retailing and Consumer Services*, 70, 102-115.
- Oni, O. A., & Adebayo, O. J. (2022). Access to finance and the growth of small and medium enterprises in Nigeria: Evidence from selected states. *Journal of Small Business and Enterprise Development*, 29(4), 563-580.
- Schumpeter, J. A. (1934). *The Theory of Economic Development*. Cambridge, Mass: Harvard University Press.
- Shaw E. (1973). *Financial Deeping in Economic Development*. London: Oxford University press.
- Uche, I. A., & Nwankwo, J. (2021). The impact of bank credit on the growth of the agricultural sector in Nigeria. *Agricultural Finance Review*, 81(3), 345-360.
- UNEP. (2022). Financing sustainable construction: A guide for policymakers. <https://www.unep.org/resources/report/financing-sustainable-construction>
- World Bank. (2022). Global economic prospects: January 2022. <https://www.worldbank.org/en/publication/global-economic-prospects>



Small Business Mortality and Survival Strategies in Nigeria

Igweh K. Florence Ph.D.

Department of Business Administration

Faculty of Management Science

University of Delta, Agbor. Delta State Nigeria

florence.igweh@unidel.edu.ng

ORCHID 0009000606022659

&

CHUKWUKA, Ernest Jebolise (Ph.D)

Department of Entrepreneurship and Business Innovation

Faculty of Management Sciences

University of Delta, Agbor

ernest.chukwuka@unidel.edu.ng

ORCID ID 0000-0002-7876-9974

&

Okonta Ewere Clinton

Department of Business Administration

Faculty of Management Science

University of Delta, Agbor. Delta State Nigeria

ewere.okonta@unidel.edu.ng

Publication Date: 2025/06/30

Abstract

This study looked at the connection between strategies for survival and small business mortality in Nigeria. Four (4) categories of these commercial enterprises' personnel were studied using a cross-sectional research approach. The study's population consisted of our respondents, who were managerial staff. Fifty-three (53) copies of the questionnaire were analyzed from the field survey; the Statistical Package for Social Sciences version 20.0's Spearman's rank order correlation coefficient was used to ascertain whether there was a relationship between the variables, and the p-values were used to test the study's hypotheses. The results showed a strong correlation between the lifetime of small enterprises and the elements of entrepreneurial success, including formal education, financial resources, and strategic planning. It was therefore determined and subsequently concluded that business knowledge shapes and drives one's ability to sell or accomplish more as well as to set oneself out from the competition. This led to our suggestions that the owners and managers of the companies should consider their operations from a long-term standpoint and ensures that adequate plans or strategies are in place to satisfy the long-term vision and goals of the business.

Keywords: *Small business mortality, formal business knowledge, financial resources, strategic planning and survival strategies.*

Introduction

In both developed and developing countries, small and medium-sized enterprises, or

SMEs, constitute the foundation of global economies and the initial stage of industrialization. Since they comprise 99

percent of all businesses in developing countries, these companies are important (Okpalaojiego, 2021). About 90% of businesses in both developed and developing countries are small and medium-sized enterprises (SEMs), which make them significant drivers of economic growth because of their capacity to generate jobs, provide employment, pay taxes, and contribute to GDP. However, many SMEs in Africa face a number of challenges, including a lack of funding, poor management skills and competences, corruption, and ignorance, despite their significant and positive role. It is interesting to observe that most African governments offer very little support to SMEs, ignoring a vital economic engine that should act as a foundation for development.

Since small businesses are frequently viewed as tools for economic development and progress, governments have put a lot of effort into developing laws that support the subsectors' expansion and sustainability. Mohamed (2022) asserts that small businesses are critical to the growth and stability of national economies.

Many people romanticize entrepreneurship as a path filled with profitable endeavours, game-changing inventions, and success stories. But beneath the glitz lurks a world full of danger, uncertainty, and difficult obstacles. Startup founders must negotiate a challenging environment that is marked by intense competition, limited resources, unstable markets, and the constant fear of failure.

The capacity to tolerate setbacks, adjust to shifting conditions, and endure hardships becomes crucial in this situation. Researchers, policymakers, and practitioners are paying more and more attention to this skill, called resilience, in an effort to comprehend how it contributes to the success of entrepreneurs. With roots in organizational and psychological theories, resilience has been described in a variety of ways across disciplines.

Resilience is frequently understood in the context of entrepreneurship as the ability to

overcome obstacles, failures, and setbacks that arise when pursuing business objectives (Emon & Nipa, 2024). It has behavioral, emotional, and cognitive components and represents a person's capacity to remain composed, solve problems successfully, and adjust to shifting conditions in the face of uncertainty (Naumzik, Feuerriegel & Weinmann, 2022).

Market swings, technological setbacks, financial shortages, and emotional stressors are just a few of the obstacles that entrepreneurs must overcome in order to succeed (Lee et al., 2021). The consequences of resilience for venture survival, growth, and innovation highlight the significance of resilience in entrepreneurship. According to research, entrepreneurs who are resilient are better able to endure the failures and setbacks that are unavoidable in the early phases of venture development (Naumzik et al., 2022). Their ability to persevere, adjust, and solve problems creatively allows them to change course, iterate, and seize chances that arise from hardship (Naumzik et al., 2022). Additionally, among entrepreneurs, resilience is linked to improved psychological wellness, less burnout, and increased job satisfaction (Gartenstein & Seidel, 2019). Despite its importance, little is known about resilience's role in entrepreneurial success, especially when looking at it qualitatively. Qualitative study provides a deeper knowledge of how resilience appears in the lived experiences, perspectives, and strategies of startup founders, whereas quantitative studies have looked at the relationship between resilience and venture outcomes.

Using qualitative approaches, researchers can explore the nuances of resilience, uncovering its underlying mechanisms, contextual effects, and implications for entrepreneurial practice (Gartenstein & Seidel, 2019). Qualitative study sheds light on the complex interaction between resilience, decision-making, and venture performance in real-world contexts by examining the experiences and viewpoints

of business owners (Gogas, Papadimitriou & Agrapetidou, 2018). This qualitative study attempts to close this gap in the literature by investigating the significance of resilience in entrepreneurial success through in-depth interviews with business founders. The study employs a phenomenological technique to gain insight into the subjective resilience-related experiences, perspectives, and strategies of entrepreneurs. In particular, the study seeks to address the following research questions:

Statement of the Problem

Since SMEs account for the majority of businesses in the country, this study project must be completed due to the sector's subpar performance. In contrast to 40% in Asia and 50% in the USA, SMEs barely make up 1% of the country's GDP, according to Oyelaran (2010). According to other studies on the issues, challenges, and opportunities that SMEs face—such as Charles and Babatunde (2012) and Agwu (2014)—entrepreneur incompetence is the main factor contributing to subpar performance and, eventually, the failure of SMEs and small businesses. Talik, Laguna, Wawrzeczyk-kulik, and Talik & Wiacek (2012) argued that while SMEs' performance has been discussed in academics and policy, research on skills have been focused on large enterprises, with SMEs receiving less attention.

Although it is commonly held that entrepreneurial competencies and SMEs' performance are positively connected, there is evidence that this is not always the case. Findings from past studies that aimed to ascertain the direction of the performance-competence link were not always consistent. While Fatoki (2014) and Julius (2011) reported positive associations, Oo (2007) and Sanda (2011) reported negative ones. For example, Sanda (2011) found that while small firm CEOs were highly competent, their performance did not appear to benefit from this.

What may be deduced from these variations? In their evaluation of the literature on entrepreneurial competencies, Mitchelmore

and Rowley (2010) recommended that more research be done on the connection between business success and entrepreneurial performance and competencies in light of the discrepancies. Therefore, the primary goal of this study is to clearly examine the connection between entrepreneurial skills and SMEs' success. Once more, the two main areas of prior study on entrepreneurial performance and competencies are entrepreneurial skills (Cooney, 2013; Kinyua, 2014) and entrepreneurial traits (Ogunleye, 2012; Sarkowa, 2013). The impact of entrepreneurial motivations on performance has received little attention. The only research that have attempted to test this link are two.

There is no literature that has tested a direct relationship between entrepreneurial motives and the performance of SMEs. Waita (2013) in Kenya examined the relationship between his employees' entrepreneurial motivation and how that affects business performance, and Liebrechts (2013) in the Netherlands examined how entrepreneurial motives affect business performance through some mediating factors.

This necessitates that studies explicitly look into a direct correlation between the variables. Despite the fact that Van der Laan, Driessen, and Zwart (2010) created a framework for assessing entrepreneurial competency that includes entrepreneurial motivations, skills, knowledge, and traits, they have not in any way assessed the elements' predictive validity.

In an in-person interview with the Manager of the Kaduna State SMEDAN Office, it was disclosed that the funds could not be recovered because many recently founded businesses were shut down and those that were already established did not significantly expand due to the entrepreneurs' lack of the requisite skills. He continued by saying that many financial institutions, particularly commercial banks, had been deterred from pursuing some of these plans by the possibility of loan nonpayment. In light of this, the researcher

believes it is appropriate to examine the true nature of this assertion by looking at small business survival and mortality rates in Nigeria.

The purpose and goals of the research

Other particular goals of the study include

- i. Determining the relationship between formal business education, knowledge, skill, and experience and small business longevity in Nigeria; and
- ii. Determining the association between small business mortality and survival methods in Nigeria.
- iii. To investigate the connection between Nigerian small business longevity and financial resources
- iv. To ascertain the connection between strategic planning and the longevity of small businesses in Nigeria

Questions for research

The study's research questions are as follows:

- i. What connection exists between the lifespan of small businesses in Nigeria and
- ii. Formal business education, knowledge, skill, and experience?
- iii. What connection exists between Nigerian small business longevity and financial resources?
- iii. What is the relationship between strategic planning and small business longevity in Nigeria?

Research hypotheses

The following null hypothetical statements are raised for the study

H01: The lifetime of small businesses in Nigeria is not significantly correlated with formal business education, knowledge, skill, or experience.

H02: In Nigeria, there is no discernible correlation between the lifetime of small businesses and financial resources.

H03: In Nigeria, there is no discernible link between the longevity of small businesses and strategic planning.

Literature review

The Concept of Small Business Mortality

Small business mortality is the term used to describe the closure or failure of small firms within a given time period, with many of them not lasting past their first few years. This idea emphasizes the difficulties small firms encounter in maintaining operations and the causes of their death. Most small businesses, especially those that are just getting started, fail within the first few years. For instance, statistics indicate that 80% of small enterprises in Nigeria collapse after five years (Chukwuka 2016). Both internal and external factors might have an impact on business mortality. Poor management, weak financial planning, a lack of entrepreneurial abilities, and inadequate succession planning are examples of internal factors. External Factors: Business failure can also result from technology upheavals, harsh market competition, adverse regulations, and economic downturns. The generation of jobs and economic growth depend heavily on small businesses. High death rates can impede these contributions and have a detrimental effect on regional economies (Chukwuka 2016).

Small Business Survival Strategies in Nigeria

A survival strategy for longevity of small businesses depends on having a clear succession plan, putting good marketing techniques into practice, and cultivating strong managerial abilities. Although the duration of a business's collapse might vary, studies indicate that companies in the manufacturing sector often have a longer time to failure and a higher survival rate than those in the commerce or service sectors.

Declining cash flow, an inability to pay debts, a loss of clients, and an unclear business plan are some early warning

indicators (Chukwuka & Imide 2023). Small businesses in Nigeria should prioritize sound financial management, efficient marketing, establishing a strong network, and flexibility in order to assure their existence. This entails using modern tools, investigating new markets, and carefully planning your budget. Long-term success also depends on creating a positive work atmosphere and emphasizing client satisfaction (Chukwuka & Igweh 2024).

According to Chukwuka (2016) Monitoring spending, controlling cash flow, and making wise decisions all depend on putting in place strong budgeting procedures and keeping correct financial records. Companies can manage cash flow and finance expansion by looking into loan, grant, and other financing sources. The key to increasing profitability and maintaining financial stability is recognizing and cutting down on wasteful spending. Businesses can advertise their goods and services and reach a larger audience by utilizing social media, email marketing, and other internet channels. Good word-of-mouth and repeat business can be generated by cultivating close relationships with consumers through individualized contact, exceptional service, and loyalty programs. In order to stay ahead of the competition and customize goods and services for the market, it is essential to comprehend the demands and preferences of customers.

Theoretical Review

This Study aligned with these theories and their applications can help the small businesses reduce their mortality rate drastically and help them to succeed and compete favourably.

Entrepreneurial Wealth Creation Theory

According to the entrepreneurial wealth creation theory pioneered by Chukwuka (2025) entrepreneurs create wealth by allocating resources, innovating, and creating new value, all of which eventually

benefit society as a whole. Rather than concentrating only on financial transactions, this approach highlights that wealth creation results from recognizing and finding innovative solutions to society problems. It emphasizes how crucial it is to spot possibilities, come up with solutions, and produce financial gains in order to create wealth.

Entrepreneurs recognize societal issues and create novel solutions to deal with them. In order to create and execute their ideas, entrepreneurs efficiently manage and distribute resources. The ability to produce new value that addresses a need or resolves an issue is the foundation of wealth creation. When solutions are successfully implemented, financial gains are obtained, which further contributes to the building of wealth. Through the production of jobs, economic expansion, and better living standards, entrepreneurial wealth creation helps not only the entrepreneur but also the larger community.

Entrepreneurs identify societal problems and develop innovative solutions to address them. Entrepreneurs effectively allocate and manage resources to develop and implement their ideas. The basis of wealth creation is the capacity to create new value that solves a problem or meets a demand. Successful implementation of solutions results in financial gains, which further adds to the accumulation of wealth. Entrepreneurial wealth development benefits the entrepreneur as well as the greater community by creating jobs, boosting the economy, and raising living standards. Entrepreneurial wealth creation theory essentially highlights a positive feedback loop in which recognizing and resolving societal issues generates wealth, which in turn stimulates additional innovation and problem-solving, eventually to the advantage of the individual entrepreneur and society as a whole. Chukwuka's study argues that the term POSMOW—which stands for Problems, Opportunities,

Solutions, Monetary Rewards, and Wealth—represents this concept.

RBV Theory and Small Business

Researchers have employed the RBV, a strategic management theory, to examine firm resources, capacity, and routines—all of which are essential to business operations and competitive advantage. (Gottschalk, Sandra & Bettina Müller, 2022) Dissatisfied with the neoclassical economic approach to a firm's commercial growth, Edith Penrose created the RBV in the late 1950s (Gottschalk et al., 2022). Firm managers are motivated to attain economic optimum, which propels resource management and, in turn, organizational behavior and performance, according to an RBV approach.

Firm managers should place a high value on resource divergence and fixity in order to create and maintain a competitive edge. Managers should create unique corporate resources that rivals cannot imitate, claim (Gogas et al., 2018). First, managers can create a competitive advantage by utilizing precious and uncommon resources. Managers can manage their companies more effectively and efficiently by using valuable resources. Second, in order to generate a sustainable advantage, resources need to possess specific qualities. It is challenging to copy, replace, and move the priceless resources from one organization to another. RBV is used by small business managers to analyse SME resources and connect performance to outside sources.

Gumel (2017) state that using the RBV, researchers contended that SME managers mostly turn to external accountants for professional services due to a lack of internal resources. Due to their economic contribution and susceptibility to market flaws, small business executives require assistance and guidance (Deena & Gupta, 2021). SME managers can acquire the skills and information they require from outside service providers by depending on outside sources (Deena & Gupta, 2021). The

fundamental tenet of RBV theory is that managers of companies can achieve a state of ongoing competitive advantage by obtaining and managing resources that are rare, valuable, unique, and non-substitutable (VRIN). The RBV idea provides a detailed explanation of the internal factors that contribute to a firm's sustained competitive advantage.

Capability-based View

Another useful theory for this study is the capability-based view, which is based on the RBV (Du Jardin, 2018). The capability-based view is a link between RBV and general competitive strategy. According to Deena and Gupta (2021), proponents of the capability-based approach put a lot of effort into accumulating experiences over time in order to develop particular capabilities through path-dependent processes. According to the RBV concept, capability refers to organizational capability; however, in the capability-based view, capability refers to dynamic capability and encompasses a variety of entities, including teamwork, individual individuals, and organizations. RBV defines a resource as an input or asset, whether material or immaterial, that is utilized in production. According to RBV, an organization's capacity to carry out a planned series of actions utilizing organizational resources in order to accomplish a specific outcome is known as organizational capability. According to the capability-based view, there are numerous significant magnitudes that contribute to resource development dynamism under the capability idea. A key conceptual focus of the capability-based view, as opposed to the firm's RBV, is the development of a particular capability within the organization that goes beyond generic capability.

The ability of the company's leader to advance through a series of developmental stages is the basis of the capability-based perspective notion. The capability of a firm's lifespan is another important focus of

the notions of the capability-based view. In contrast to RBV, another key idea of the capacity-based approach is that organizational and individual capabilities are the coordinates of a firm's capability developments. According to Durica, Podhorska, Durana (2019), if a company's target and procedure are clear, its leaders might aim for a variety of goals to get a competitive edge.

However, because the goal of the study is to investigate certain organizational sustainability strategies, RBV was chosen over a capability-based view of the firm. The idea of a capability-based view is related to the topic of social capital and teamwork, which is not relevant to this study.

Entrepreneurial development theory

Although economic development theory and financial inclusion theory were also included in the study as complementary theories to the theory of entrepreneurial development, the theory of entrepreneurial development was the most important theory in this investigation.

The process of creating the resources and abilities required for managing and expanding a business is explained by the entrepreneurial development theory. The idea provides valuable guidance on how to establish and expand sustainable entrepreneurship.

In its comprehensive sense, entrepreneurial development theory describes how a business organization's promoters and the organization itself work together to create a long-lasting, lucrative enterprise. According to the notion of entrepreneurial development, the expansion and viability of business organizations depend on elements including financial inclusion, enterprise management competencies, education, training, and skills. These factors, according to proponents of the idea of entrepreneurial development, are the elements of entrepreneurial development that are necessary for the success of business organizations.

Small and medium-sized businesses (SMEs)

Similarly, small and medium-sized businesses, or SMEs, are at the core of Africa's promising growth. Over 95 percent of all businesses in Sub-Saharan Africa are SMEs (Durica, Podhorska & Durana, 2019). Given their ability to lower poverty, increase a nation's GDP, and create jobs for the vast majority of people, it is noteworthy that SMEs are even more important (Durica et al., 2019). In addition to providing a source of revenue and jobs, the industry is especially significant because of its straightforward approach to meeting the requirements of the majority of Africans by providing reasonably priced goods and services at fair terms and pricing (Durica et al., 2019).

SMEs differ in size from tiny microbusinesses with one or two employees and very little or no growth to rapidly expanding medium-sized companies with millions of dollars in revenue and the majority with up to 250 people (Durica et al., 2019). The definitions of the firms also differ; some require millions of dollars to launch, while others require little capital (Denton, 2020). Many industries around the world use certain metrics, including as yearly turnover, total assets, number of workers, and capital investments, to identify SMEs (Boso, Adeleye, Donbesuur & Gyensare, 2019). There is no widely accepted definition of SMEs, as evidenced by the analysis of various definitions of SMEs around the world, which shows that it is extremely difficult to come to a consensus. In fact, one study conducted by (Boso et al., 2019) in 75 countries found that more than 75 definitions were used in the target countries. The definitions will continue to change according to the nation, industry, size of the company, assets, and goods. For example, companies with fewer than 500 employees are referred to as SMEs by Canadians and Americans, whereas small businesses are defined as those with fewer than 100 employees and revenue. In Belgium, SMEs are companies with fewer

than 100 employees, whereas in Germany, SMEs are companies with a maximum of 250 employees.

About 80% of the world's population makes their living and finds work in SMEs (Bushe, 2019). In particular, 30% of jobs are provided by microbusinesses, 20% by small businesses, and 10% by medium-sized firms (Alshami, Mamun & Rashide, 2020). Over 90% of enterprises in Africa are SMEs, and they account for roughly 50% of the continent's GDP (Alshami et al., 2020).

SMEs give Africa a platform to grow and serve as the bridge from small industries to huge, highly developed, sophisticated sectors.

Factors affecting SMEs success

Failure causes, according to (Amankwah-Amoah & Wang, 2019), are obstacles that may arise from a company's internal and external environments and have a negative impact on its performance. Due mostly to variations in the social and political climate of the host nation, these variables may differ between economies (Amankwah-Amoah, Adomako & Berko, 2022).

While the external environment refers to elements outside the organization, the internal environment relates to elements inside a corporation. Environmental elements over which a business has no influence are referred to as external effects, whereas internal.

The term "factors" refers to the attributes of the company.

Internal factors can frequently be foreseen ahead of time, but some external causes of business failure are less foreseeable (Amankwah-Amoah, Adomako & Berko, 2022).

Corporate owners and employees have the most control over internal factors, which are aspects of the corporate environment (Amankwah-Amoah et al., 2022). The following internal factors were suggested by various authors (Sherman & Seidel, 2019): a lack of a clear target market, a poorly chosen business location, an inability to create a long-term business plan, personal

issues (health, marital, etc.), ineffective advertising or promotional strategy, a lack of understanding of pricing strategy, inadequate financial accounting record keeping, a lack of formal college education, a lack of managerial experience, skills, and training, a lack of knowledge of the current business situation, a failure to consult with knowledgeable and professional businesspeople, a failure to sell what customers want, a poor relationship with customers, a lack of employee satisfaction, a disregard for legal issues, a disregard for competition, and a lack of adequate cash flow.

Government Regulations

Insufficient resource allocation and overzealous government regulation consistently jeopardize the small business sector's existence (Chamberlain & Smith, 2006). The owners' money and effort are wasted by the many laws and regulations related to the licensing process, which ultimately led to the failure of their companies. According to Arasti (2011), one of the main causes of small business failure was unsupportive government policies.

Herrington (2014) asserts that small firms find it extremely challenging to obtain the licenses and permits required to start and grow their operations. Less bureaucratic red tape and the development of a calm and stable environment are required to support the establishment of new companies and the expansion of existing ones, claim Nieman and Nieuwenhuizen (2008).

Eliminating significant bureaucratic rules and regulations that entrepreneurs must abide by should help increase the economy's competitiveness because more enterprises would enter the market, claim Nieman and Nieuwenhuizen (2009).

Another element that may affect entrepreneurs and cause them to be disappointed is the administrative framework of tax laws, business permits, and activity authorization; it may also make them less inclined to pursue their goals. A highly bureaucratic environment with

frequently changing regulations that could be harmful to businesses' success. According to Arsti (2011), "the regulations in Iran are affecting 11 different aspects of the life of a business and these aspects include starting a business, dealing with construction permits, registering property, obtaining credit, protecting investors, paying taxes, trading across borders, enforcing contracts, closing a business, getting electricity, and employing workers."

Small Business Mortality

According to Siow Song Teng et al. (2011), business success is the continuing of a business with no profits or losses, whereas business failure is the discontinuation of a business with losses to creditors and shareholders. Compared to small and big enterprises with more than 50 employees, employees at companies with fewer than 50 employees lost their jobs at a higher rate between 2007 and 2009 (Malchow-Moller, Schjerning, & Sorensen, 2011). Business failure happens when revenue declines or costs rise, resulting in a company's insolvency and limiting its potential for net equity. There are several ways to define high small business failure rates (Cochran, 2001). Effective management and sufficient money are two criteria that determine a company's failure rate (Salman, von Friedrichs, & Shukur, 2011). A firm manager's choices, actions, and company conduct are linked to business failure (Minello et al., 2014). The behavior of the manager, internal organizational factors, and external environmental factors can all have an impact on a company's success or failure (Minello et al., 2014). The SBA classifies small businesses according to their yearly revenue, number of employees, and industry (Salas-Fumas & Sanchez-Asin, 2011). According to Campbell et al. (2012), there are other ways to categorize small businesses by size, such as the number of owners and managers, yearly sales, net income, net worth, and a combination of these factors. Due to varying definitions of failure, researchers have incorrectly

suggested solutions based on inconsistent findings from previous studies (SalasFumas & Sanchez-Asin, 2011). There are several reasons why small firms fail, such as partnership disputes, bankruptcy, voluntary termination, and lost opportunities (Yallapragada & Bhuiyan, 2011).

Legal disputes, the owner's personal limits, elective cessation, mergers or acquisitions by other companies, and the owner's passing are additional causes of small business failure. According to Stafford, Bhargava, Danes, Haynes, and Brewton (2010), businesses need to endure in order to thrive. About 50% of new small firms make it for at least five years (U.S. Census Bureau, 2014). Around five years is how long less than half of new enterprises last. According to SBA data, around 75% of new enterprises fail during the first five years on average across all industries (SBA, 2011). Due to their restricted access to the credit markets, small businesses are more likely to file for bankruptcy than large ones (Salman et al., 2011). Over 80% of small businesses fail during the first six years when all factors contributing to firm termination are taken into account (Arasti et al., 2012). Only over half of all new small enterprises survive for five years, and roughly one-third survive for ten years or more (Hibbler-Britt & Sussan, 2015). Small businesses have a low survival rate.

Factors to the Longevity of Small Businesses

Formal Business Education, Knowledge, Skills, and SME longevity

For SMEs to be successful, their owners and managers must have a certain level of business expertise. Having this business knowledge and abilities aids those in charge of a company in planning, strategizing, and comprehending the risks. According to Bosworth and Turner (2018), formal education and training, work experience, and skill development are crucial prerequisites for small business expansion. Owners and managers of SMEs require both

conceptual and technical abilities to increase their productivity and capability.

Proficiency in business is a crucial strategic advantage. It is the culmination of abilities, insights, experiences, and skills that together provide a foundation for corporate success.

Research has demonstrated that capacity-building and employee knowledge work together to help business owners understand the business environment in which they operate and create effective strategies that can help them overcome these challenges that come with running a small business, like the ineffective and inefficient allocation of resources (Bosworth & Turner, 2018). There is evidence that small businesses are susceptible to a number of challenges that could impede their growth.

Since knowledge is intrinsically unique, it is extremely valuable. Business activity, the capacity to sell or accomplish more, and the ability to differentiate oneself from the competitors are all shaped and driven by business knowledge. For SMEs to succeed, having a trained workforce is essential. Finding individuals with the talents to support the expansion of the company is the duty of SMEs' owners and managers. There are several skill sets, and a mix of technical, management, business, and staff experience abilities is essential to pursuing growth and sustainability (Del Giudice, 2017).

According to Del Giudice (2017), SME owners and managers have utilized the business expertise, abilities, and experience of their staff as vital resources to gain a long-term competitive edge. Along with expertise and knowledge, the aforementioned abilities are also intangible assets. They are categorized as resources under RBT. These intangible resources are nonetheless unique and have a certain quality. The significance of skills and how they contribute to the success of small businesses is no longer up for debate. Small business owners and managers must develop plans to anticipate and address skill shortages because they have a detrimental impact on a company's ability to grow and survive.

Financial resources and SMEs longevity

To fulfill their business vision and goals, all entrepreneurs, regardless of age, size, or location, need financial resources like capital and operating cash flow. One crucial component that helps small businesses thrive and endure is financial resources. Every entrepreneur launching a new company needs certain resources, no matter how modest, and has to cover certain costs, like business registration fees, staff costs, and other ongoing expenditures during the initial stages of the company's existence.

Financial resources are therefore a crucial asset since linked resources like material and human resources could not be acquired without them. The development, expansion, and sustainability of any economy are greatly aided by the financing of SMEs. Finding both startup and operating finance has frequently been a problem for small business entrepreneurs. The assertion that funding is a major obstacle to SMEs' expansion and survival is supported by the estimated credit gap for SMEs in emerging markets, which is above US\$1 trillion.

Funds from personal savings, donations from family and friends, outside sources like financial institution loans, unofficial sources, crowdfunding, and the sale of private assets are some of the ways small business owners raise their startup capital (Bosworth & Turner, 2018). Bank loans, unofficial financial institutions, social networks, and social capital are some of the ways that small enterprises obtain funding (Bosworth & Turner, 2018). Small business owners and young start-ups frequently have to rely entirely on unofficial sources of funding because they are unable to show collateral security and business history.

Governments worldwide are very concerned in the performance and funding of SMEs because of their ability to promote social and economic growth. Leaders in Nigeria's corporate and government sectors have realized how crucial it is to fund SMEs, and as a result, they concur that one of the pillars of economic progress is the

expansion of SMEs. SMEs in Nigeria still face difficulties obtaining startup and expansion capital funding from traditional commercial banks, despite the fact that having access to financing allows them to grow their companies and acquire better technology for manufacturing, ensuring their competitiveness. Most commercial bank loans given to SMEs have terms that are much too short to cover any significant investment (Taiwo, 2016). To help finance SMEs, the Nigerian government has implemented a number of laws and programs.

Strategic planning and the longevity of small businesses

The idea of strategy has its roots in the military, where army generals outlined strategies for organizing their forces to destroy the opposition. The decisions and activities made within a company endeavour to accomplish its objectives and obtain a competitive advantage in its sector are referred to as business strategy. A business strategy acts as a roadmap for decision-making about resource allocation by outlining what owners and managers must do to accomplish the company's objectives (Dobni et al., 2016). The intended outcomes follow from the strategy.

Lack of strategic planning can result in missed opportunities and resource waste by creating a lack of a clear business strategy, accumulating contingencies, or making it difficult to gauge success or failure (Turner & Endres, 2017). An organization's approach for directing its daily operations is called strategic planning. Budgets, financial forecasts, and cash flow appear to be the main focus of typical SME strategic planning, with little attention paid to non-financial factors. Strategic planning encompasses three key elements. These elements include strategy formulation, which makes use of a company's goals, mission, and vision.

Owners and management of SMEs may find that strategic planning aids in creating a clear plan of action and certain steps to

create and maintain a competitive edge. Too many businesses today have made significant financial investments on beautiful blueprints and strategic planning, only to have them fail during the implementation phase.

According to Elbanna et al. (2016), strategic planning is a management fad that is on the verge of dying because it has gotten too logical over time. According to reports by Naradda et al. (2020), despite 87% of the sampled organizations reporting sentiments of disappointment and irritation with their systems, the majority of them remain strongly dedicated to strategic planning. Additionally, 59% of respondents primarily blame their dissatisfaction on difficulties putting ideas into action. Compared to their counterparts without a strategic plan, business owners and managers who employ an organized yet adaptable strategic planning approach perform better (Turner & Endres, 2017). These are the explanations offered by critics for why formal strategic planning might disappear in the coming years.

Methodology

Using a cross-sectional survey research design, this study examined a subset of small and medium-sized businesses across four (4) categories: cottage industries, export-oriented industries, domestic market-oriented industries, and supporting sectors. Small and medium-sized businesses (SMEs) come into these four industries, which make up our accessible population. Nevertheless, our study units include the managerial staff of the companies, meaning that our unit of analysis is at the organizational level of the organization. We received the information on the organization's functional departments from the human resources department. Spearman's rank order correlation coefficient statistical tool was used to analyze the fifty-three (53) copies that were recovered and examined. The questionnaire was the tool used to collect data from the respondents.

Results and Discussion

Table 4.1: Spearman's correlation between small business mortality and survival strategies

		Formal.Bus. edu	Finan.Reso u	Strat.Pla nn	Longevity	
Spearman's rho	Formal.Bus.e du	Correlation Coefficient	1.000	.874**	.901**	.974**
		Sig. (2- tailed)	.	.	.	.
		N	53	53	53	53
	Finan.Resou	Correlation Coefficient	.874**	1.000	1.000**	.883**
		Sig. (2- tailed)	.	.	.	.
		N	53	53	53	53
	Strat.Plann	Correlation Coefficient	.901**	1.000**	1.000	.922**
		Sig. (2- tailed)	.	.	.	.
		N	53	53	53	53
	Longevity	Correlation Coefficient	.974**	.883**	.922**	1.000
		Sig. (2- tailed)	.	.	.	.
		N	40	40	40	40

SPSS output, Version 20 – Field Survey, 2025

Table 4.1 shows the Spearman's rank order coefficient of correlation, which was used to determine the relationship between the factors used in this study (formal business education) and the longevity of small businesses among fifty-three (53) SMEs entrepreneurs in Nigeria who fall into four (4) categories: supporting industries, export-oriented industries, domestic market-oriented industries, and cottage industries. There is a statistically significant positive correlation between the longevity of small businesses and formal business education, knowledge, skills, and experience ($\rho = .974^{**}$, $p = .000 < 0.05$ (alpha value)). This suggests that formal business education has a significant impact on small business longevity.

Decision: We declare that there is a substantial correlation between the lifespan of small enterprises in Nigeria and formal

business education, knowledge, skills, and experience, and we reject the null hypothesis (H_0). Spearman's rank order coefficient of correlation is used in Table 4.1 to explore the relationship between the longevity of small businesses and the factors used in this study (financial resources) among fifty-three (53) SMEs entrepreneurs in Nigeria across four (4) categories (supporting industries, export-oriented industries, domestic market-oriented industries, and cottage industries).

A strong positive correlation coefficient value was reported between financial resources and longevity of small businesses which was statistically significant ($\rho = .883^{**}$, $p = .000 < 0.05$ (alpha value)); this being indicative that financial resources have significant relationship with small business longevity.

Decision: The null hypothesis (H0₂) is rejected and we state that there is significant relationship between financial resources and longevity of small businesses in Nigeria.

Table 4.1 presents Spearman’s rank order coefficient of correlation run to find out the relationship between the factors that affect small businesses and their longevity as deployed in this study (strategic planning) and longevity of small businesses among fifty-three (53) SMEs entrepreneurs of along the four (4) categorizations (supporting industries, export-oriented industries,

domestic market-oriented industries, and cottage industries) in Nigeria. A strong positive correlation coefficient value was reported between strategic planning and longevity of small businesses which was statistically significant ($\rho = .922^{**}$, $p = .000 < 0.05$ (alpha value); this being indicative that strategic planning has significant relationship with small business longevity.

Decision: The null hypothesis (H0₃) is rejected and we state that there is significant relationship between strategic planning and longevity of small businesses in Nigeria.

Table 4.2: Summary of Findings

The findings of this study are summarized as follows;

H ₀	Statement	Result	Remark	Decision
1	There is no significant relationship between formal business education, knowledge, skills and experience and longevity of small businesses	$\rho = .974^{**}$, $p = .000 < 0.05$	Strong positive and significant relationship	Rejected
2	There is no significant relationship between financial resources and longevity of small businesses	$\rho = .883^{**}$, $p = .000 < 0.05$	Strong positive and significant relationship	Rejected
3	There is no significant relationship between strategic planning and longevity of small businesses	$\rho = .922^{**}$, $p = .000 < 0.05$	Strong positive and significant relationship	Rejected

Researcher’s Summary

Discussion of Findings

The study examined the relationship between small business mortality and survival strategies among selected SMEs in Nigeria; three (3) hypotheses were formulated as tentative answers to research questions raised and were tested to find support for the propositions, thus;

- i. The result of the tested H_{01} revealed the existence of a significant relationship between formal business education, knowledge, skills and experience and small business longevity; ($\rho = .974^{**}$, $p = .000$); this empirical result is corroborated with views from literature; thus, according to Bosworth and Turner (2018), formal education and training, work experience, and skill development are crucial prerequisites for small business expansion. Owners and managers of SMEs require both conceptual and technical abilities to increase their productivity and capability. Proficiency in business is a crucial strategic advantage. It is the culmination of abilities, insights, experiences, and skills that together provide a foundation for corporate success.
- ii. The result of the tested H_{02} revealed the existence of a significant relationship between financial resources and longevity of small business; ($\rho = .883^{**}$, $p = .000$); this empirical result is corroborated with views from literature; thus, small business owners and young start-ups frequently have to rely entirely on unofficial sources of funding because they are unable to show collateral security and business history. The assertion that funding is a major obstacle to SMEs' expansion and survival is supported by the estimated credit gap for SMEs in emerging markets, which is above US\$1 trillion. Funds from personal savings, donations from family and friends, outside sources like financial institution loans, unofficial sources, crowdfunding, and the sale of private assets are some of the ways small business owners

raise their startup capital (Bosworth & Turner, 2018).

The result of the tested H_{03} revealed the existence of a significant relationship between strategic planning and longevity of small businesses; ($\rho = .922^{**}$, $p = .000$); this empirical result is corroborated with views from literature; thus, the assumed link between strategic planning and SME growth has already been covered by a sizable number of scholars. According to Ralph et al. (2020), strategic planning has gained a lot of attention. Since the mid-1990s, studies on strategic business planning in SMEs have shown that this field is still in its infancy and that there is inconsistent data regarding its correlation with success.

Conclusions

The following conclusions are reached in the course of the research undertaking;

Formal education and training, work experience, and skill development are crucial prerequisites for small business longevity and expansion. Owners and managers of SMEs require both conceptual and technical abilities to increase their productivity and capability through obtaining proficiency in business which becomes a crucial strategic advantage.

The assertion that funding is a major obstacle to SMEs' expansion and survival is supported by the estimated credit gap for SMEs in emerging markets, which is above US\$1 trillion. Funds from personal savings, donations from family and friends, outside sources like financial institution loans, unofficial sources, crowdfunding, and the sale of private assets are some of the ways small business owners raise their startup capital and through it survive in their establishments

One of the most important steps in the strategic planning process is figuring out an organization's mission, goals, strategic alternatives, and policies so that resources can be acquired and distributed to meet organizational goals.

Recommendations

For sustainability and expansion, present and future small business owners should take advantage of the six action items suggested by this study. Current and prospective small business owners want to concentrate on (a) customer satisfaction tactics, (b) aggressive marketing tactics, (c) sincere dedication to the enterprise, (d) strategies for human capital, (e) strategies for business understanding, and (f) efficient supervisory tactics.

- i. For SMEs to be successful, their owners and managers must have a certain level of business expertise. Having this business

References

- Alshami S, Mamun A, Rashide S (2020). Causes of failure among Malaysian female entrepreneurs: A qualitative case study of Malaysian microcredit borrowers. Emerald Publishing Limited 12(1):43-71.
- Amankwah-Amoah, J., & Wang, X. (2019). Business failures around the world: Emerging trends and new research agenda. *Journal of Business Research*, 98, 367–369.
- Amankwah-Amoah, J., Adomako, S., & Berko, D. O. (2022). Once bitten, twice shy? The relationship between business failure experience and entrepreneurial collaboration. *Journal of Business Research*, 139, 983-992.
- Boso, N., Adeleye, I., Donbesuur, F., & Gyensare, M. (2019). Do entrepreneurs always benefit from business failure experience? *Journal of Business Research*, 98, 370-379.
- Bushe, B. (2019). The Causes and Impact of Business Failure among Small to Micro and Medium Enterprises in South Africa. *Africa's Public Service Delivery and Performance Review*, 7, 2310-2195
- Chukwuka, E. J.(2025). "Entrepreneurial Wealth creation theory," *World Journal of Finance and Investment Research*, vol. 9, no. 4, pp. 49–60,
- Chukwuka, E. J. (2025). Strategies of starting and sustaining a business without incurring high interest loans. Lagos, Nigeria: Alabaster Publishing Technologies Ltd, 2016.
- knowledge and abilities aids those in charge of a company in planning, strategizing, and comprehending the risks.
- The owners of these small businesses should strive to differentiate themselves from the competitors by investing more in business knowledge.
- Small business owners and managers must look at their operations from a long-term perspective and make sure that sufficient plans or strategies are in place to meet the company's long-term vision, purpose, goals, and objectives.
- Chukwuka E. J., and Imide, I.,(2022)"Assessing the strategic effect of small and medium scale enterprises on economic development: Evidence from Delta State," *FUWJBFS Journal of Banking and Financial Studies*, vol. 2, no. 2, p. 15
- vuka E.J., Igweh F. (2024) Feasibility Studies and Entrepreneurial Success of Small and Medium Scale Businesses in Asaba. *Nigerian Journal of Management Sciences* 25(1) 134-141
- , D., & Gupta, D. (2021). A Study on Factors that contribute to the failure of startups. *Int. J. of Aquatic Science*, 12(2), 2634-2640.
- Denton, A. (2020). Why Do Most Small Businesses in Liberia Fail. *Open Journal of Business and Management*, 8, 1771-1815
- Du Jardin, P. (2018). Failure pattern-based ensembles applied to bankruptcy forecasting. *Decision Support Systems*, 107, 64-77.
- Durica, M., Podhorska, I., Durana, P. (2019). Business failure prediction using cart-based model: A case of Slovak companies. *Ekonomicko-manazerske spektrum*, 13(1), 51-61.
- Gartenstein, D., & Seidel, M. (2019). Why Is Strategic Planning Important to a Business? *Chron.*

- <https://smallbusiness.chron.com/strategic-planning-important-business-2671.html>
- Gogas, P., Papadimitriou, T. & Agrapetidou, A. (2018). Forecasting bank failures and stress testing: A machine learning approach. *International Journal of Forecasting*, 34(3), 440-455.
- Gottschalk, Sandra, and Bettina Müller. (2022) "A second chance for failed entrepreneurs: a good idea?." *Small Business Economics*: 1-23.
- Gumel, B. I. (2017). Strategizing for Sustaining Small Business Enterprises in Nigeria. *IOSR Journal of Business and Management*, 19, 8-25.
- Lee, C. K., Cottle, G. W., Simmons, S. A., & Wiklund, J. (2021). Fear not, want not: Untangling the effects of social cost of failure on high-growth entrepreneurship. *Small Business Economics*, 57(1), 531-553.
- Mohamed, A. K. (2022). What are the causes of small business failure in Burao, Somaliland?. *African Journal of Business Management*, 16(2), 32-41.
- Naumzik, C., Feuerriegel, S., & Weinmann, M. (2022). I will survive: Predicting business failures from customer ratings. *Marketing Science*, 41(1), 188-207.
- Okpalaojiego E. C (2021). Causes and Implications of Insecurity on Entrepreneurial Development and Small Business Operations in Nigeria: The Panacea. *Academic Journal of Current Research* ,8(6):95-109.
- Schaefer, P. (2019). Why Small Businesses Fail: Top 7 Reasons for Startup Failure. *Business Know-How*. <https://www.businessknowhow.com/startup/business-failure.htm>
- Sherman, F., & Seidel, M. (2019). Why Is the Location of a Business Important? *Chron*. <https://smallbusiness.chron.com/location-business-important-43239.html>
- Sibanda, V., & Ndhlela, M. (2018). Customer Relationship Management as a Customer Retention Tool: A Case Study of OK Zimbabwe Limited. *EPH—International Journal of Business and Management Science*, 4, 2208-2190



The Role Of Motivation In Enhancing Job Performance Among Public Sector Workers

Orovwegodo Goodluck OFOBRUKU¹ Akpomuvire MUKORO^{*2}, Onofere Princewill OKEREKA³

^{1,2,3}Department of Public Administration, Faculty of Management Science, Delta State University, Abraka

*Corresponding Author: akpomuviremukoro@delsu.edu.ng

Publication Date: 2025/06/30

Abstract

Motivating employees has consistently been identified as a major factor that drives performance, especially within public sector organizations where effective service delivery relies heavily on workers' commitment and productivity. This study focuses on the role of motivation in enhancing job performance among public sector workers, paying attention to how different motivational elements influence efficiency and overall effectiveness in the workplace. Employing the historical research method, the study reviews past literature, official records, and documented experiences from public institutions to show how motivation has shaped employee attitudes and performance over time. The study was anchored on Herzberg's Two-Factor Theory, which differentiates between motivators, such as achievement and recognition, and hygiene factors, such as salary and job security, in explaining what drives employee satisfaction and performance. The findings indicated that public sector employees who are well-motivated tend to demonstrate higher productivity, lower absenteeism, and stronger commitment to service delivery. On the other hand, lack of motivation is often linked to poor performance, inefficiency, and higher turnover intentions. The study concluded that motivation plays a central role in improving performance and ensuring sustainable productivity among public servants. It is recommended among others that public service organizations should prioritize career development as a strategic tool for boosting motivation and performance. This involves implementing continuous training and capacity-building programs, establishing mentoring systems, and designing structured career progression plans. When employees are assured of growth and professional advancement, they are more likely to remain committed, innovative, and productive.

Keywords: *Employee motivation, job performance, public sector, Herzberg Two-Factor Theory, Service delivery*

Introduction

In every organization, the human element remains the most critical factor in achieving goals and objectives. Unlike machines or financial capital, people bring creativity, commitment, and initiative into the workplace. For this reason, employee motivation has continued to attract scholarly and policy attention, especially in the public sector, where efficiency and accountability are often questioned (Nguyen & Ngo, 2021). Public sector organizations are established to

provide essential services such as education, health care, security, and social welfare. However, the extent to which these organizations deliver quality service largely depends on the motivation, dedication, and job performance of their workforce. Motivation, therefore, becomes a key driver of productivity, as it influences how employees approach their duties and how committed they are to organizational success (Awan & Mahmood, 2023).

Motivation is broadly understood as the internal and external forces that stimulate individuals to act in a particular way to achieve certain goals. Scholars like Herzberg (1959) highlighted that motivation is not merely about financial rewards but also intrinsic factors such as recognition, personal growth, and a sense of accomplishment. In public organizations, motivation plays a unique role because workers often face constraints such as bureaucratic red tape, limited resources, and political interference. Despite these challenges, when employees are well-motivated, they tend to display improved job performance, reduced absenteeism, and greater commitment to service delivery (Aguinis et al., 2022).

The Nigerian public sector, like many others across developing countries, has faced criticisms over inefficiency, low productivity, and poor service delivery. These challenges are frequently linked to poor motivation of workers (Ejumudo, 2022). Many civil servants perceive public service as monotonous, with limited opportunities for career advancement and insufficient recognition for their contributions. This lack of motivation has contributed to low morale, high turnover intentions, and a decline in productivity. In contrast, studies have shown that when public institutions introduce effective motivation strategies, employees demonstrate higher levels of job satisfaction and organizational commitment (Osabiya, 2023).

The importance of motivation in the public sector also aligns with contemporary human resource management practices, which stress the need for organizations to go beyond financial incentives. Today's public sector employees, like their private-sector counterparts, seek opportunities for self-development, recognition, and involvement in decision-making. Motivation is, therefore, not only about raising salaries or offering bonuses but also about creating an enabling environment where employees feel valued and empowered to contribute meaningfully (Nguyen & Ngo, 2021). This study, therefore, examined how motivation affects the productivity and efficiency of employees in government organizations. It builds on Herzberg's Two-Factor Theory, which distinguishes between motivators (achievement, recognition, and responsibility) and hygiene factors (salary, job security, and working conditions). By analyzing how these factors

influence public sector workers, the study provides insight into how government agencies can strengthen motivation and, in turn, improve service delivery. In essence, motivation remains central to the success of public organizations. Without a motivated workforce, even well-designed policies and programs are likely to fail in implementation. This study underscores the need for public managers and policymakers to prioritize effective motivation strategies as a pathway to boosting employee performance, enhancing productivity, and ensuring sustainable public service delivery.

Conceptual Review

Motivation

Motivation is a central idea in organizational behavior and human resource management, often seen as the driving force, either internal or external, that pushes individuals to take actions aimed at meeting both personal and organizational objectives. Simply put, it explains why people choose to act in certain ways at work. Scholars generally categorize motivation into two broad types: intrinsic factors (such as personal growth, recognition, and a sense of purpose) and extrinsic factors (such as salary, job stability, and workplace conditions). Ryan and Deci (2020) describe motivation as "the process that initiates, guides, and sustains goal-directed behavior," emphasizing its role in shaping the energy, persistence, and quality of an employee's performance.

In organizational settings, motivation extends beyond financial incentives; it also involves creating an environment where employees feel valued, committed, and satisfied. Herzberg's Two-Factor Theory remains particularly relevant in public administration, as it highlights the distinction between motivators (e.g., recognition and achievement) and hygiene factors (e.g., pay, policies, and conditions of service) (Bamfo & Dogbe, 2023). Therefore, motivation within public institutions can be seen as the continuous interaction between employee values and the

rewards or incentives provided by the organization.

Job Performance

Job performance refers to how effectively individuals carry out their assigned duties and responsibilities within an organization. It can be evaluated through indicators such as productivity, service quality, timeliness, and innovation. Campbell and Wiernik (2015) define job performance as “behaviors or actions that are relevant to the organization’s goals and measurable in terms of contributions to organizational effectiveness.” In public organizations, performance goes beyond technical efficiency. It also involves accountability, ethical behavior, and responsiveness to the needs of citizens (Nguyen & Ngo, 2021). Job performance can take different forms: task-related (fulfilling specific duties), contextual (supporting colleagues and demonstrating initiative), or adaptive (responding effectively to change). Research consistently suggests that motivated employees perform better, show lower absenteeism, and remain more committed to their organizations (Awan & Mahmood, 2023). This shows that performance is not only an individual characteristic but also a product of how well organizations manage and motivate their workforce.

Public Sector Organizations

Public sector organizations are government-owned institutions that exist primarily to deliver services and improve the welfare of citizens rather than generate profit. These include ministries, agencies, and parastatals responsible for key services such as healthcare, education, infrastructure, security, and social programs (World Bank, 2020). Unlike private companies driven mainly by profit, public sector institutions operate under principles of accountability, equity, and public service.

According to Perry and Vandenabeele (2015), public sector organizations are usually structured through bureaucracy, relying on rules, procedures, and political oversight, all of which influence employee behavior and performance. In developing nations such as Nigeria, public organizations play a vital role in governance and nation-building, though they often struggle with challenges like low motivation, corruption, and resource shortages (Ejumudo, 2022). For this reason, improving motivation among public employees is not just a human resource concern but also a governance priority.

Thus, motivation represents the psychological and organizational drivers of employee behavior, job performance reflects how effectively such behavior translates into achieving organizational goals, and public sector organizations are state institutions tasked with serving the public interest. The three are closely connected: without motivated workers, performance declines, and public institutions fail to meet their mandates.

Relationship Between Employee Motivation and Job Performance

The relationship between employee motivation and job performance in public organizations has continued to attract scholarly attention. Both theoretical perspectives and empirical findings suggest that motivation remains a fundamental driver of productivity, particularly in bureaucratic institutions where service delivery depends heavily on the commitment of workers. Classic theories such as Herzberg’s Two-Factor Theory and the Public Service Motivation (PSM) framework are among the most frequently applied lenses to explain variations in performance levels among public sector employees. Herzberg (1959) differentiated between *hygiene factors* (e.g., pay, job security, and working conditions) that prevent dissatisfaction and *motivators* (e.g., achievement, recognition, and growth opportunities) that actively improve satisfaction and performance. Recent studies confirm the relevance of this theory in modern public service contexts, noting that workers who feel recognized and empowered

display higher levels of efficiency (Bamfo & Dogbe, 2023).

More recently, the concept of Public Service Motivation has gained prominence. PSM emphasizes the altruistic and prosocial values that drive individuals to serve the public interest (Perry & Vandenberg, 2015). Empirical research consistently shows a positive relationship between PSM and job performance, often mediated by factors such as employee engagement, organizational commitment, and organizational citizenship behavior (OCB). For example, Nguyen and Ngo (2021) demonstrated that public employees with high PSM tend to go beyond their formal job descriptions, contributing discretionary effort that enhances service delivery outcomes.

Studies also reveal that mediators and moderators shape how motivation translates into performance. Employee engagement has been identified as a common mediator in the PSM-performance link, while leadership style and HR practices often serve as moderators. Transformational leadership, in particular, amplifies the effect of PSM by fostering a shared mission and motivating employees to align with organizational goals (Awan & Mahmood, 2023). Similarly, effective HR practices, such as training, transparent appraisal systems, and rewards, create the conditions necessary for motivation to yield sustained productivity (Aguinis et al., 2022). This indicates that motivation, while essential, must be supported by enabling structures and strong managerial capacity.

Complementary frameworks, such as the Ability–Motivation–Opportunity (AMO) model, broaden the discussion by suggesting that performance is maximized when employees not only feel motivated but also possess the necessary skills and are provided opportunities to contribute (Appelbaum et al., 2000). Nigerian studies confirm this dynamic, showing that a combination of financial incentives, training, and participatory decision-making enhances both commitment and output in the public sector (Ejumudo, 2022; Osabiya, 2023).

The COVID-19 pandemic, for instance, has shifted attention toward intrinsic motivators such as well-being, flexibility, and meaningful work, while also reinforcing the importance of hygiene factors such as health and safety (Aguinis et al., 2022). As hybrid and remote work arrangements

expand, recognition, autonomy, and digital support systems are becoming increasingly critical in maintaining employee motivation (Nguyen et al., 2021).

Region-specific evidence, particularly from Nigeria, echoes global patterns but highlights persistent structural challenges. Bureaucratic inefficiency, irregular promotion, and delayed salaries continue to dampen employee morale. However, findings also suggest that intrinsic motivators such as PSM and recognition can offset some of these barriers, though systemic reforms, such as fair promotion systems, capacity building, and improved managerial accountability, are required to fully translate motivation into measurable performance outcomes (Perry & Vandenberg, 2015; Ejumudo, 2022; Osabiya, 2023).

Challenges of Sustaining Employee Motivation in Public Service Delivery

Sustaining motivation among public servants remains a complex and persistent challenge, largely because public organizations operate under structural conditions that differ significantly from those of the private sector. While private firms often rely on flexible incentive schemes, performance-based pay, and competitive market signals to motivate workers, government agencies operate under more rigid constraints. These include bureaucratic procedures, political oversight, and limited budgets that restrict the use of conventional motivational tools. As a result, public institutions must grapple with multiple, overlapping challenges that undermine long-term employee engagement and productivity (Aguinis et al., 2022).

1. Bureaucratic rigidities and slow decision-making

Public servants often encounter excessive paperwork, rigid hierarchies, and prolonged approval processes that create frustration and reduce their sense of agency. Employees who cannot see the timely impact of their work often lose intrinsic motivators such as achievement and purpose. Studies of civil

service systems confirm that bureaucratic bottlenecks are linked to diminished morale and episodic rather than consistent performance outcomes (Aguinis et al., 2022).

2. Irregular pay, poor remuneration, and delayed benefits

Compensation challenges are among the strongest demotivators in the public sector. While salaries may appear adequate on paper, delays in disbursement, irregular allowances, or unpaid pensions erode employee trust. Such inconsistencies drive absenteeism, moonlighting, and weak organizational loyalty, particularly in developing contexts such as Nigeria (Aguinis et al., 2022).

3. Weak promotion and career-development systems

Opaque promotion processes, unpredictable career paths, and limited training opportunities contribute to a sense of stagnation among staff. Where advancement is based on favoritism or political influence rather than merit, long-term motivation declines sharply. Research consistently links perceptions of unfairness in career progression to turnover intentions and reduced discretionary effort (Bamfo & Dogbe, 2023).

4. Ineffective leadership and poor HR practices

Motivation is also undermined when leadership styles are authoritarian, unsupportive, or inconsistent. Public servants thrive under transformational leadership that provides recognition, mentorship, and participative decision-making. Yet, in many public organizations, HR systems remain outdated, with weak performance appraisals, inadequate training structures, and reward mechanisms that prioritize seniority over merit (Ogah & Akinbo, 2024).

5. Excessive workloads, resource scarcity, and burnout

Understaffing and inadequate resources are widespread problems in frontline services such as healthcare and education. These constraints generate chronic stress and burnout, especially during crises like the COVID-19 pandemic. Without sufficient well-being supports, intrinsic motivation diminishes, and employees' resilience deteriorates (Aguinis et al., 2022).

6. Changing work environments and remote/hybrid challenges

The shift to remote and hybrid work has produced mixed outcomes. While flexibility has boosted autonomy for some, in contexts where digital infrastructure is weak, employees report isolation, blurred work-life boundaries, and reduced recognition from supervisors. Public agencies ill-prepared for digital transition have struggled to sustain employee engagement in post-pandemic work modes (Bamfo & Dogbe, 2023).

7. Corruption, political interference, and perceived unfairness

Corruption and favoritism present perhaps the most damaging motivational barriers. When employees perceive that promotions, contracts, or rewards are allocated based on patronage, organizational trust collapses. Such practices not only demotivate staff but also foster cynicism and disengagement across the institution (Aguinis et al., 2022).

8. Measurement, evaluation gaps, and short-term policy cycles

Motivational initiatives are often rolled out without rigorous measurement or sustained evaluation. Political leaders and donors frequently prefer visible short-term reforms like one-off bonuses or ad hoc training programs rather than long-term, structural improvements. Without systematic tracking, it is difficult to identify which strategies

actually enhance motivation over time (Perry & Vandenabeele, 2015).

9. Cultural and contextual factors

Finally, organizational culture and local values strongly influence motivation. In environments where risk aversion, low institutional trust, or weak public service ethos dominate, even well-designed incentives may fail to resonate. Misalignment between imported motivational models and local cultural realities often produces resistance or only superficial compliance (Bamfo & Dogbe, 2023).

Theoretical Framework

The study was anchored on Herzberg's Two-Factor Theory. Herzberg's Two-Factor Theory, widely known as the Motivation–Hygiene Theory, was first developed in 1959 by Frederick Herzberg together with his colleagues Bernard Mausner and Barbara Bloch Snyderman. The theory was introduced through their groundbreaking book *The Motivation to Work*, which has remained one of the most influential contributions to organizational psychology and management studies (Herzberg et al., 1959). At the core of this framework is the idea that employee motivation and satisfaction are shaped by two broad categories of factors.

On one side are the *motivators*, also referred to as intrinsic factors. These include elements such as achievement, recognition, growth opportunities, and responsibility. When present, these factors inspire employees, encourage them to engage more deeply with their tasks, and ultimately contribute to higher levels of job satisfaction and improved performance. Motivators are associated with the inner drive to succeed and the fulfillment that comes from meaningful work.

On the other side are the *hygiene factors*, also known as extrinsic factors. These are conditions surrounding the job, such as salary, supervision, company policies, and physical

working conditions. Herzberg argued that while these elements do not necessarily create motivation or long-term satisfaction, their absence can lead to dissatisfaction, frustration, and a decline in performance. In other words, hygiene factors are essential for maintaining a neutral or stable work environment, but they are not sufficient to generate genuine motivation on their own.

The strength of Herzberg's theory lies in its shift from the traditional focus on external rewards alone to an appreciation of the deeper psychological needs of employees. By distinguishing between motivators and hygiene factors, the theory highlights the importance of creating a workplace that not only removes dissatisfaction but also actively fosters personal growth, recognition, and achievement (Miner, 2005). This perspective has significantly shaped modern approaches to human resource management, emphasizing that sustainable motivation requires more than financial incentive requires fulfilling work and opportunities for personal development.

Herzberg's Two-Factor Theory has been one of the most influential models in understanding employee motivation, but it has also attracted several criticisms over the years. One of the major concerns lies in the methodological limitations of Herzberg's original study. The theory was developed using critical incident technique, where employees were asked to recall times, they felt satisfied or dissatisfied at work. Critics argue that this method introduces bias, as individuals are more likely to attribute positive experiences to their achievements (internal factors) and negative experiences to external circumstances such as poor supervision or pay (King, 2023). This self-serving bias makes it difficult to generalize the results across different contexts.

Another criticism is that the theory oversimplifies the complexity of motivation by rigidly categorizing factors into "motivators" and "hygiene factors." In practice, some elements, such as salary or job security, may serve as both motivators and sources of dissatisfaction depending on the employee's context. For example, in environments where wages are very low, financial rewards can strongly motivate

employees, contradicting Herzberg's claim that salary is merely a hygiene factor (Wickramasinghe & Sajeevanie, 2022).

The theory has also been critiqued for limited applicability across cultures and sectors. Much of Herzberg's work was conducted in Western organizational contexts, and subsequent research has shown that motivational drivers differ in developing countries or in public service roles where extrinsic rewards like job stability and benefits can be powerful motivators (Agyeman & Osei-Tutu, 2021). This raises questions about the universality of the Two-Factor framework.

Finally, scholars argue that Herzberg's model does not fully address individual differences in motivation. Factors such as personality, age, or career stage can influence how employees perceive motivators and hygiene factors. What inspires one employee may leave another indifferent, suggesting that a more flexible and integrative model is needed to capture the diversity of workplace motivations (Robbins & Judge, 2022).

However, Herzberg's Two-Factor Theory is highly relevant to a study on motivation and job performance among public sector workers because it provides a useful lens for understanding the dynamics of employee satisfaction and productivity. The theory suggests that performance is shaped not only by external rewards such as salaries, allowances, and working conditions but also by deeper, intrinsic factors like recognition, responsibility, and opportunities for growth. This is especially relevant in public sector organizations where financial incentives are often limited by bureaucratic processes and restricted budgets. Herzberg's perspective helps explain why non-material factors can play a vital role in keeping employees motivated and committed.

The theory's distinction between motivators and hygiene factors sheds light on why many public servants remain dedicated to their duties despite facing low wages or inadequate resources. Workers in government ministries or agencies often find fulfillment in the recognition they receive, the sense of

accomplishment in serving the public, or the responsibility of contributing to social progress. Such intrinsic rewards are powerful in the public sector, where the goal of serving society can provide meaning that goes beyond material benefits.

At the same time, Herzberg's model stresses the need to deal with hygiene factors to avoid dissatisfaction. Problems such as poor work environments, ineffective supervision, or limited opportunities for promotion can weaken employee morale and reduce efficiency. Applying this theory, therefore, calls on policymakers and administrators to maintain a balance between removing workplace frustrations and actively promoting intrinsic motivation among employees.

Overall, Herzberg's Two-Factor Theory is highly relevant to this study because it offers a solid foundation for analyzing how both internal and external factors influence motivation and job performance in public service. It helps researchers understand not just the reasons behind employee satisfaction or dissatisfaction, but also how these conditions affect workers' dedication to providing effective public services.

Empirical Review

Over the past decade, empirical evidence has increasingly shown that both intrinsic and extrinsic forms of motivation play a significant role in shaping job performance within public organizations. However, the strength and pathways of these effects differ depending on context, organizational structures, and research design. Large-scale international and country-specific studies consistently demonstrate that public service motivation (PSM) is positively associated with employee performance, particularly when combined with supportive leadership and active work engagement. Engagement often acts as the mechanism that explains this link, while transformational leadership tends to amplify it (Chen et al., 2024).

Meta-analyses and systematic reviews further support the conclusion that PSM generally enhances performance outcomes but highlight important limitations. For instance, a recent synthesis of PSM antecedents and outcomes reported robust associations with organizational commitment and organizational citizenship behaviors (OCB). Yet, it also revealed that differences in study design and performance indicators lead to variation in effect sizes, making results less uniform. A recurring critique is the dominance of cross-sectional studies, which limits causal interpretation and underscores the need for longitudinal and experimental approaches (Kim & Vandenabeele, 2024). Empirical findings have also clarified how motivation translates into performance. Variables such as work engagement, psychological safety, and organizational support frequently serve as mediators, while leadership style and human resource management practices function as moderators that strengthen the motivation–performance connection. Evidence from health and education sectors shows that when employees are motivated and organizational systems provide the necessary support, such as training, fair appraisals, and recognition, they are more likely to go beyond formal duties, maintain quality standards, and sustain higher productivity (Aguinis et al., 2022). The Ability–Motivation–Opportunity (AMO) model provides a complementary framework for understanding these dynamics. This model argues that motivation alone cannot yield optimal results unless employees also have the necessary skills (ability) and enabling structures (opportunity) to act effectively. Recent studies applying the AMO model in public organizations show that combining training with motivational incentives and participatory practices enhances both employee commitment and performance outcomes (International Journal of Strategic Management, 2025).

In Africa, and particularly Nigeria, empirical studies mirror global patterns while drawing attention to unique contextual challenges. Research in Nigerian public organizations shows that intrinsic factors, such as recognition, meaningful work, and PSM, boost morale and discretionary effort. Yet, structural barriers, including delayed salary payments, bureaucratic inefficiencies, limited resources, and political interference, often undermine sustained motivational gains. These systemic challenges frequently result in low morale, absenteeism, and weak organizational commitment, limiting the long-term impact of motivational initiatives (Abuh et al., 2025).

Applied studies in Nigeria have nonetheless demonstrated promising outcomes where AMO-based interventions are implemented. Packages that combine training, incentive adjustments, and participatory decision-making processes report improvements in staff commitment and some performance indicators. Similarly, case studies in universities and public agencies show that non-financial measures such as recognition, transparent career progression, and managerial coaching can significantly improve morale and certain productivity metrics, though these gains remain constrained by governance and funding weaknesses (Abuh et al., 2025).

The COVID-19 pandemic provided further evidence of the role of motivation under crisis conditions. Research across multiple countries, including Nigeria, indicates that where employees received wellbeing support, hazard allowances, and managerial recognition, they reported higher engagement and resilience. Conversely, in the absence of such supports, burnout and performance decline were widespread (Aguinis et al., 2022).

Methodology

This study adopted a historical design, which was suitable for examining past events, policies, and trends that have shaped

perspectives on employee motivation and job performance in the public sector. Historical research involves a systematic review of records, documents, and developments to understand their connection to present realities (Kumar, 2020). By using this approach, the study traced the progression of public sector work practices, assessed previous reforms, and demonstrated how policies have influenced job satisfaction and performance over time. This method is particularly useful in contexts such as Nigeria and Africa, where reviewing the historical path of public administration provides insight into current challenges and future possibilities. The study relied exclusively on secondary data, which provided a strong foundation for historical analysis. These data sources included government publications, policy documents, and civil service commission reports. Additionally, academic works such as journal articles and textbooks on motivation theories and public administration were reviewed to enrich the study with scholarly perspectives. Secondary sources are highly relevant to historical studies because they make it possible to synthesize findings across different periods, identify recurring patterns, and develop a broader understanding (Johnston, 2021). The use of diverse sources further strengthened the reliability of the study.

For analysis, the study employed content analysis, a method that systematically examines and interprets written texts from the selected sources. This technique focuses on identifying themes, patterns, and recurring issues within documents, reports, and academic literature (Krippendorff, 2019). Through this approach, the study explored how motivation has been conceptualized across different periods, highlighted the policy areas, and assessed how these align with Herzberg's Two-Factor Theory. Content analysis thus provided a rigorous way to derive insights from historical materials and

to link past administrative practices with present challenges of employee motivation and performance in the public sector.

Discussion of Key Findings

The study revealed that the level of employee commitment and performance in the public sector has been greatly influenced by historical trends, government reforms, and policy directions over the years. Looking at records through a historical research lens showed that many of the problems affecting public servants today, such as low motivation, dissatisfaction, and poor productivity, are not recent developments but are rooted in long-established institutional practices.

It was also found that government reforms designed to promote efficiency and accountability often produced uneven outcomes because they failed to fully consider employees' motivational needs. While issues like pay and working conditions, what Herzberg describes as hygiene factors, were sometimes addressed, deeper motivators such as recognition, opportunities for growth, and active involvement in decision-making were frequently overlooked. This neglect has fueled long-standing problems of poor morale and weak commitment in the public sector.

Another important finding is that the evolution of Nigeria's public service has largely followed a top-down approach, where employees' voices and contributions were rarely considered. This limited the effectiveness of reforms, making it difficult for them to achieve long-term success. The study further showed that motivational theories, particularly Herzberg's Two-Factor Theory, provide useful insights into why certain reforms had partial success while others failed outright, mainly because they placed too much emphasis on hygiene factors or ignored intrinsic motivators.

Thus, the findings point to the need for a balanced approach in policy design that considers both extrinsic and intrinsic factors. They also underline the value of

understanding the historical path of public administration to craft better strategies that can strengthen employee motivation, commitment, and performance in Nigeria today.

Conclusion and Recommendations

This study has shown that motivation is a key factor in improving job performance among public sector workers. The public service in many countries faces numerous challenges, such as inadequate resources, bureaucratic delays, and political pressures. Despite these obstacles, the level of productivity and commitment of employees depends greatly on whether their motivational needs are adequately met. The findings reveal that while fair pay, job security, and favorable working conditions help in meeting employees' basic expectations, these factors alone do not guarantee sustained performance. More lasting impact comes from intrinsic motivators such as recognition, career growth opportunities, participation in decision-making, and a sense of pride in contributing to public service.

The study highlights that motivation should not be restricted to financial incentives but must combine both intrinsic and extrinsic approaches. Public sector organizations that adopt a holistic view of motivation and respond to the diverse needs of their workforce are better positioned to improve service delivery, build accountability, and achieve higher levels of efficiency. In this way, motivation should be understood as a fundamental pillar of organizational success rather than a secondary concern. Strengthening motivational practices is therefore crucial for creating a public service that is effective, responsive, and dedicated to meeting the needs of citizens while driving sustainable national development.

In conclusion, motivation is not just a supporting factor but the engine that drives employee performance in the public sector. A deliberate commitment to integrating both intrinsic and extrinsic motivators will enable governments and managers to inspire their workforce, enhance productivity, and build a public administration system capable of delivering excellence.

Building on the findings of this study, enhancing job performance in the public sector requires practical and people-centered strategies. Motivation must be approached holistically, combining both intrinsic and extrinsic factors to address long-standing challenges of low morale, weak commitment, and declining productivity. Based on this, the following recommendations are proposed:

Public service organizations should prioritize career development as a strategic tool for boosting motivation and performance. This involves implementing continuous training and capacity-building programs, establishing mentoring systems, and designing structured career progression plans. When employees are assured of growth and professional advancement, they are more likely to remain committed, innovative, and productive.

Recognition and reward mechanisms should extend beyond financial compensation to include symbolic and non-monetary incentives. Public servants who demonstrate dedication, innovation, and excellence should be acknowledged through awards, commendations, and other forms of recognition that reinforce a culture of appreciation. Such efforts enhance employee morale and foster stronger organizational loyalty.

Public sector organizations should uphold fairness and transparency in promotion and performance appraisal systems to strengthen trust within the workforce. Employees should see that merit, effort, and competence are consistently rewarded. By reducing favoritism and political interference, transparent systems motivate workers to perform better, knowing their contributions will be objectively recognized and rewarded.

References

- Abuh, O., Okolie, C., & Uchenna, O. (2025). Enhancing employee commitment and performance levels in Nigeria public sector through Ability–Motivation–Opportunity (AMO) framework. *International Journal of Strategic Management*, 4(2), 13–47. <https://doi.org/10.47604/ijism.3434>
- Aguinis, H., Villamor, I., & Gabriel, K. P. (2022). Understanding employee motivation: Advancing the field through integrative reviews and research agenda. *Journal of Management*, 48(1), 132–167. <https://doi.org/10.1177/01492063211045045>
- Agyeman, C. M., & Osei-Tutu, E. (2021). Motivation and employee performance in public sector organizations: Revisiting Herzberg’s Two-Factor Theory. *Public Organization Review*, 21(3), 567–582. <https://doi.org/10.1007/s11115-020-00493-6>
- Appelbaum, E., Bailey, T., Berg, P., & Kalleberg, A. L. (2000). *Manufacturing advantage: Why high-performance work systems pay off*. Cornell University Press.
- Awan, A. G., & Mahmood, K. (2023). Motivation and its impact on employee performance in public sector organizations. *Journal of Human Resource Management*, 11(2), 45–59.
- Bamfo, B. A., & Dogbe, C. S. K. (2023). Motivation and employee performance: Revisiting Herzberg’s Two-Factor Theory in public organizations. *International Journal of Public Administration*, 46(4), 327–341. <https://doi.org/10.1080/01900692.2021.1986348>
- Campbell, J. P., & Wiernik, B. M. (2015). The modeling and assessment of work performance. *Annual Review of Organizational Psychology and Organizational Behavior*, 2(1), 47–74. <https://doi.org/10.1146/annurev-orgpsych-032414-111427>
- Chen, Y., Wang, Y., & Li, X. (2024). The role of public service motivation in enhancing job performance: Work engagement as a mediator. *Education Sciences*, 15(5), 585. <https://www.mdpi.com/2227-7102/15/5/585>
- Ejumudo, K. B. O. (2022). Motivation and job performance in Nigeria’s public service: An assessment of challenges and prospects. *African Journal of Public Administration*, 15(3), 88–103.
- Enhancing employee commitment and performance levels in Nigeria public sector through the Ability–Motivation–Opportunity (AMO) framework. (2025). *International Journal of Strategic Management*, 4(2), 13–47. <https://ideas.repec.org/a/bdu/ojijism/v4y2025i2p13-47id3434>
- Herzberg, F. (1959). *The motivation to work*. New York: John Wiley & Sons.
- Herzberg, F., Mausner, B., & Snyderman, B. B. (1959). *The motivation to work* (2nd ed.). New York: John Wiley & Sons.
- Johnston, M. P. (2021). Secondary data analysis: A method of which the time has come. *Qualitative and Quantitative Methods in Libraries*, 10(3), 1–10.
- Kim, S., & Vandenabeele, W. (2024). The antecedents and outcomes of public service motivation: A meta-analysis. *Frontiers in Public Health*, 2, 37 – 46.
- King, N. (2023). The critical incident method revisited: Evaluating Herzberg’s Two-Factor Theory in contemporary workplaces. *Journal of Management History*, 29(1), 45–61. <https://doi.org/10.1108/JMH-08-2022-0048>
- Krippendorff, K. (2019). *Content analysis: An introduction to its methodology* (4th ed.). SAGE.
- Kumar, R. (2020). *Research methodology: A step-by-step guide for beginners* (5th ed.). SAGE.
- Miner, J. B. (2005). *Organizational behavior 1: Essential theories of motivation and leadership*. Armonk, NY: M.E. Sharpe.
- Nguyen, P. V., & Ngo, L. V. (2021). Public sector motivation and performance: A systematic review and research agenda. *Public Administration Review*, 81(4), 667–680. <https://doi.org/10.1111/puar.13364>

- Nguyen, P. V., & Ngo, L. V. (2021). Public service motivation and performance: A systematic review and research agenda. *Public Administration Review*, *81*(4), 667–680. <https://doi.org/10.1111/puar.13364>
- Ogah, U. S., & Akinbo, T. M. (2024). Exploring promotion practices, impact on public servants' commitment, efficiency, responsiveness, and goal attainment in Nigeria. *World Journal of Advanced Research and Reviews*, *24*(2), 2557–2571. <https://doi.org/10.30574/wjarr.2024.24.2.3475>
- Osabiya, B. J. (2023). Employee motivation and productivity in the Nigerian public service: Rethinking strategies for efficiency. *Global Journal of Management and Social Sciences*, *12*(1), 120–135.
- Perry, J. L., & Vandenabeele, W. (2015). Public service motivation research: Achievements, challenges, and future directions. *Public Administration Review*, *75*(5), 692–699. <https://doi.org/10.1111/puar.12430>
- Robbins, S. P., & Judge, T. A. (2022). *Organizational behavior* (19th ed.). Pearson.
- Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, *61*, 101860. <https://doi.org/10.1016/j.cedpsych.2020.101860>
- Wickramasinghe, V., & Sajeevanie, T. L. (2022). Employee motivation in low-income contexts: Revisiting Herzberg's theory. *International Journal of Human Resource Studies*, *12*(2), 1–18. <https://doi.org/10.5296/ijhrs.v12i2.19688>
- World Bank. (2020). *Public sector performance: A framework for reform*. Washington, DC: World Bank Publications.



Small Business Mortality and Survival Strategies in Nigeria

Igweh K. Florence Ph.D.

Department of Business Administration
Faculty of Management Science
University of Delta, Agbor. Delta State Nigeria
florence.igweh@unidel.edu.ng
ORCHID 0009000606022659

&

CHUKWUKA, Ernest Jebolise (Ph.D)

Department of Entrepreneurship and Business Innovation
Faculty of Management Sciences
University of Delta, Agbor
ernest.chukwuka@unidel.edu.ng
ORCID ID 0000-0002-7876-9974

&

Okonta Ewere Clinton

Department of Business Administration
Faculty of Management Science
University of Delta, Agbor. Delta State Nigeria
ewere.okonta@unidel.edu.ng

Publication Date: 2025/06/30

Abstract

This study looked at the connection between strategies for survival and small business mortality in Nigeria. Four (4) categories of these commercial enterprises' personnel were studied using a cross-sectional research approach. The study's population consisted of our respondents, who were managerial staff. Fifty-three (53) copies of the questionnaire were analyzed from the field survey; the Statistical Package for Social Sciences version 20.0's Spearman's rank order correlation coefficient was used to ascertain whether there was a relationship between the variables, and the p-values were used to test the study's hypotheses. The results showed a strong correlation between the lifetime of small enterprises and the elements of entrepreneurial success, including formal education, financial resources, and strategic planning. It was therefore determined and subsequently concluded that business knowledge shapes and drives one's ability to sell or accomplish more as well as to set oneself out from the competition. This led to our suggestions that the owners and managers of the companies should consider their operations from a long-term standpoint and ensures that adequate plans or strategies are in place to satisfy the long-term vision and goals of the business.

Keywords: *Small business mortality, formal business knowledge, financial resources, strategic planning and survival strategies.*

Introduction

In both developed and developing countries, small and medium-sized enterprises, or

SMEs, constitute the foundation of global economies and the initial stage of industrialization. Since they comprise 99

percent of all businesses in developing countries, these companies are important (Okpalaojiego, 2021). About 90% of businesses in both developed and developing countries are small and medium-sized enterprises (SEMs), which make them significant drivers of economic growth because of their capacity to generate jobs, provide employment, pay taxes, and contribute to GDP. However, many SMEs in Africa face a number of challenges, including a lack of funding, poor management skills and competences, corruption, and ignorance, despite their significant and positive role. It is interesting to observe that most African governments offer very little support to SMEs, ignoring a vital economic engine that should act as a foundation for development.

Since small businesses are frequently viewed as tools for economic development and progress, governments have put a lot of effort into developing laws that support the subsectors' expansion and sustainability. Mohamed (2022) asserts that small businesses are critical to the growth and stability of national economies.

Many people romanticize entrepreneurship as a path filled with profitable endeavours, game-changing inventions, and success stories. But beneath the glitz lurks a world full of danger, uncertainty, and difficult obstacles. Startup founders must negotiate a challenging environment that is marked by intense competition, limited resources, unstable markets, and the constant fear of failure.

The capacity to tolerate setbacks, adjust to shifting conditions, and endure hardships becomes crucial in this situation. Researchers, policymakers, and practitioners are paying more and more attention to this skill, called resilience, in an effort to comprehend how it contributes to the success of entrepreneurs. With roots in organizational and psychological theories, resilience has been described in a variety of ways across disciplines.

Resilience is frequently understood in the context of entrepreneurship as the ability to

overcome obstacles, failures, and setbacks that arise when pursuing business objectives (Emon & Nipa, 2024). It has behavioral, emotional, and cognitive components and represents a person's capacity to remain composed, solve problems successfully, and adjust to shifting conditions in the face of uncertainty (Naumzik, Feuerriegel & Weinmann, 2022).

Market swings, technological setbacks, financial shortages, and emotional stressors are just a few of the obstacles that entrepreneurs must overcome in order to succeed (Lee et al., 2021). The consequences of resilience for venture survival, growth, and innovation highlight the significance of resilience in entrepreneurship. According to research, entrepreneurs who are resilient are better able to endure the failures and setbacks that are unavoidable in the early phases of venture development (Naumzik et al., 2022). Their ability to persevere, adjust, and solve problems creatively allows them to change course, iterate, and seize chances that arise from hardship (Naumzik et al., 2022). Additionally, among entrepreneurs, resilience is linked to improved psychological wellness, less burnout, and increased job satisfaction (Gartenstein & Seidel, 2019). Despite its importance, little is known about resilience's role in entrepreneurial success, especially when looking at it qualitatively. Qualitative study provides a deeper knowledge of how resilience appears in the lived experiences, perspectives, and strategies of startup founders, whereas quantitative studies have looked at the relationship between resilience and venture outcomes.

Using qualitative approaches, researchers can explore the nuances of resilience, uncovering its underlying mechanisms, contextual effects, and implications for entrepreneurial practice (Gartenstein & Seidel, 2019). Qualitative study sheds light on the complex interaction between resilience, decision-making, and venture performance in real-world contexts by examining the experiences and viewpoints

of business owners (Gogas, Papadimitriou & Agrapetidou, 2018). This qualitative study attempts to close this gap in the literature by investigating the significance of resilience in entrepreneurial success through in-depth interviews with business founders. The study employs a phenomenological technique to gain insight into the subjective resilience-related experiences, perspectives, and strategies of entrepreneurs. In particular, the study seeks to address the following research questions:

Statement of the Problem

Since SMEs account for the majority of businesses in the country, this study project must be completed due to the sector's subpar performance. In contrast to 40% in Asia and 50% in the USA, SMEs barely make up 1% of the country's GDP, according to Oyelaran (2010). According to other studies on the issues, challenges, and opportunities that SMEs face—such as Charles and Babatunde (2012) and Agwu (2014)—entrepreneur incompetence is the main factor contributing to subpar performance and, eventually, the failure of SMEs and small businesses. Talik, Laguna, Wawrzeczyk-kulik, and Talik & Wiacek (2012) argued that while SMEs' performance has been discussed in academics and policy, research on skills have been focused on large enterprises, with SMEs receiving less attention.

Although it is commonly held that entrepreneurial competencies and SMEs' performance are positively connected, there is evidence that this is not always the case. Findings from past studies that aimed to ascertain the direction of the performance-competence link were not always consistent. While Fatoki (2014) and Julius (2011) reported positive associations, Oo (2007) and Sanda (2011) reported negative ones. For example, Sanda (2011) found that while small firm CEOs were highly competent, their performance did not appear to benefit from this.

What may be deduced from these variations? In their evaluation of the literature on entrepreneurial competencies, Mitchelmore

and Rowley (2010) recommended that more research be done on the connection between business success and entrepreneurial performance and competencies in light of the discrepancies. Therefore, the primary goal of this study is to clearly examine the connection between entrepreneurial skills and SMEs' success. Once more, the two main areas of prior study on entrepreneurial performance and competencies are entrepreneurial skills (Cooney, 2013; Kinyua, 2014) and entrepreneurial traits (Ogunleye, 2012; Sarkowa, 2013). The impact of entrepreneurial motivations on performance has received little attention. The only research that have attempted to test this link are two.

There is no literature that has tested a direct relationship between entrepreneurial motives and the performance of SMEs. Waita (2013) in Kenya examined the relationship between his employees' entrepreneurial motivation and how that affects business performance, and Liebrechts (2013) in the Netherlands examined how entrepreneurial motives affect business performance through some mediating factors.

This necessitates that studies explicitly look into a direct correlation between the variables. Despite the fact that Van der Laan, Driessen, and Zwart (2010) created a framework for assessing entrepreneurial competency that includes entrepreneurial motivations, skills, knowledge, and traits, they have not in any way assessed the elements' predictive validity.

In an in-person interview with the Manager of the Kaduna State SMEDAN Office, it was disclosed that the funds could not be recovered because many recently founded businesses were shut down and those that were already established did not significantly expand due to the entrepreneurs' lack of the requisite skills. He continued by saying that many financial institutions, particularly commercial banks, had been deterred from pursuing some of these plans by the possibility of loan nonpayment. In light of this, the researcher

believes it is appropriate to examine the true nature of this assertion by looking at small business survival and mortality rates in Nigeria.

The purpose and goals of the research

Other particular goals of the study include

- v. Determining the relationship between formal business education, knowledge, skill, and experience and small business longevity in Nigeria; and
- vi. Determining the association between small business mortality and survival methods in Nigeria.
- vii. To investigate the connection between Nigerian small business longevity and financial resources
- viii. To ascertain the connection between strategic planning and the longevity of small businesses in Nigeria

Questions for research

The study's research questions are as follows:

- iv. What connection exists between the lifespan of small businesses in Nigeria and
- v. Formal business education, knowledge, skill, and experience?
- vi. What connection exists between Nigerian small business longevity and financial resources?
- iv. What is the relationship between strategic planning and small business longevity in Nigeria?

Research hypotheses

The following null hypothetical statements are raised for the study

H01: The lifetime of small businesses in Nigeria is not significantly correlated with formal business education, knowledge, skill, or experience.

H02: In Nigeria, there is no discernible correlation between the lifetime of small businesses and financial resources.

H03: In Nigeria, there is no discernible link between the longevity of small businesses and strategic planning.

Literature review

The Concept of Small Business Mortality

Small business mortality is the term used to describe the closure or failure of small firms within a given time period, with many of them not lasting past their first few years. This idea emphasizes the difficulties small firms encounter in maintaining operations and the causes of their death. Most small businesses, especially those that are just getting started, fail within the first few years. For instance, statistics indicate that 80% of small enterprises in Nigeria collapse after five years (Chukwuka 2016). Both internal and external factors might have an impact on business mortality. Poor management, weak financial planning, a lack of entrepreneurial abilities, and inadequate succession planning are examples of internal factors. External Factors: Business failure can also result from technology upheavals, harsh market competition, adverse regulations, and economic downturns. The generation of jobs and economic growth depend heavily on small businesses. High death rates can impede these contributions and have a detrimental effect on regional economies (Chukwuka 2016).

Small Business Survival Strategies in Nigeria

A survival strategy for longevity of small businesses depends on having a clear succession plan, putting good marketing techniques into practice, and cultivating strong managerial abilities. Although the duration of a business's collapse might vary, studies indicate that companies in the manufacturing sector often have a longer time to failure and a higher survival rate than those in the commerce or service sectors.

Declining cash flow, an inability to pay debts, a loss of clients, and an unclear business plan are some early warning indicators (Chukwuka & Imide 2023). Small businesses in Nigeria should prioritize

sound financial management, efficient marketing, establishing a strong network, and flexibility in order to assure their existence. This entails using modern tools, investigating new markets, and carefully planning your budget. Long-term success also depends on creating a positive work atmosphere and emphasizing client satisfaction (Chukwuka & Igweh 2024).

According to Chukwuka (2016) Monitoring spending, controlling cash flow, and making wise decisions all depend on putting in place strong budgeting procedures and keeping correct financial records. Companies can manage cash flow and finance expansion by looking into loan, grant, and other financing sources. The key to increasing profitability and maintaining financial stability is recognizing and cutting down on wasteful spending. Businesses can advertise their goods and services and reach a larger audience by utilizing social media, email marketing, and other internet channels. Good word-of-mouth and repeat business can be generated by cultivating close relationships with consumers through individualized contact, exceptional service, and loyalty programs. In order to stay ahead of the competition and customize goods and services for the market, it is essential to comprehend the demands and preferences of customers.

Theoretical Review

This Study aligned with these theories and their applications can help the small businesses reduce their mortality rate drastically and help them to succeed and compete favourably.

Entrepreneurial Wealth Creation Theory

According to the entrepreneurial wealth creation theory pioneered by Chukwuka (2025) entrepreneurs create wealth by allocating resources, innovating, and creating new value, all of which eventually benefit society as a whole. Rather than

concentrating only on financial transactions, this approach highlights that wealth creation results from recognizing and finding innovative solutions to society problems. It emphasizes how crucial it is to spot possibilities, come up with solutions, and produce financial gains in order to create wealth.

Entrepreneurs recognize societal issues and create novel solutions to deal with them. In order to create and execute their ideas, entrepreneurs efficiently manage and distribute resources. The ability to produce new value that addresses a need or resolves an issue is the foundation of wealth creation. When solutions are successfully implemented, financial gains are obtained, which further contributes to the building of wealth. Through the production of jobs, economic expansion, and better living standards, entrepreneurial wealth creation helps not only the entrepreneur but also the larger community.

Entrepreneurs identify societal problems and develop innovative solutions to address them. Entrepreneurs effectively allocate and manage resources to develop and implement their ideas. The basis of wealth creation is the capacity to create new value that solves a problem or meets a demand. Successful implementation of solutions results in financial gains, which further adds to the accumulation of wealth. Entrepreneurial wealth development benefits the entrepreneur as well as the greater community by creating jobs, boosting the economy, and raising living standards. Entrepreneurial wealth creation theory essentially highlights a positive feedback loop in which recognizing and resolving societal issues generates wealth, which in turn stimulates additional innovation and problem-solving, eventually to the advantage of the individual entrepreneur and society as a whole. Chukwuka's study argues that the term POSMOW—which stands for Problems, Opportunities,

Solutions, Monetary Rewards, and Wealth—represents this concept.

RBV Theory and Small Business

Researchers have employed the RBV, a strategic management theory, to examine firm resources, capacity, and routines—all of which are essential to business operations and competitive advantage. (Gottschalk, Sandra & Bettina Müller, 2022) Dissatisfied with the neoclassical economic approach to a firm's commercial growth, Edith Penrose created the RBV in the late 1950s (Gottschalk et al., 2022). Firm managers are motivated to attain economic optimum, which propels resource management and, in turn, organizational behavior and performance, according to an RBV approach.

Firm managers should place a high value on resource divergence and fixity in order to create and maintain a competitive edge. Managers should create unique corporate resources that rivals cannot imitate, claim (Gogas et al., 2018). First, managers can create a competitive advantage by utilizing precious and uncommon resources. Managers can manage their companies more effectively and efficiently by using valuable resources. Second, in order to generate a sustainable advantage, resources need to possess specific qualities. It is challenging to copy, replace, and move the priceless resources from one organization to another. RBV is used by small business managers to analyse SME resources and connect performance to outside sources.

Gumel (2017) state that using the RBV, researchers contended that SME managers mostly turn to external accountants for professional services due to a lack of internal resources. Due to their economic contribution and susceptibility to market flaws, small business executives require assistance and guidance (Deena & Gupta, 2021). SME managers can acquire the skills and information they require from outside service providers by depending on outside sources (Deena & Gupta, 2021). The

fundamental tenet of RBV theory is that managers of companies can achieve a state of ongoing competitive advantage by obtaining and managing resources that are rare, valuable, unique, and non-substitutable (VRIN). The RBV idea provides a detailed explanation of the internal factors that contribute to a firm's sustained competitive advantage.

Capability-based View

Another useful theory for this study is the capability-based view, which is based on the RBV (Du Jardin, 2018). The capability-based view is a link between RBV and general competitive strategy. According to Deena and Gupta (2021), proponents of the capability-based approach put a lot of effort into accumulating experiences over time in order to develop particular capabilities through path-dependent processes. According to the RBV concept, capability refers to organizational capability; however, in the capability-based view, capability refers to dynamic capability and encompasses a variety of entities, including teamwork, individual individuals, and organizations. RBV defines a resource as an input or asset, whether material or immaterial, that is utilized in production. According to RBV, an organization's capacity to carry out a planned series of actions utilizing organizational resources in order to accomplish a specific outcome is known as organizational capability. According to the capability-based view, there are numerous significant magnitudes that contribute to resource development dynamism under the capability idea. A key conceptual focus of the capability-based view, as opposed to the firm's RBV, is the development of a particular capability within the organization that goes beyond generic capability.

The ability of the company's leader to advance through a series of developmental stages is the basis of the capability-based perspective notion. The capability of a firm's lifespan is another important focus of

the notions of the capability-based view. In contrast to RBV, another key idea of the capacity-based approach is that organizational and individual capabilities are the coordinates of a firm's capability developments. According to Durica, Podhorska, Durana (2019), if a company's target and procedure are clear, its leaders might aim for a variety of goals to get a competitive edge.

However, because the goal of the study is to investigate certain organizational sustainability strategies, RBV was chosen over a capability-based view of the firm. The idea of a capability-based view is related to the topic of social capital and teamwork, which is not relevant to this study.

Entrepreneurial development theory

Although economic development theory and financial inclusion theory were also included in the study as complementary theories to the theory of entrepreneurial development, the theory of entrepreneurial development was the most important theory in this investigation.

The process of creating the resources and abilities required for managing and expanding a business is explained by the entrepreneurial development theory. The idea provides valuable guidance on how to establish and expand sustainable entrepreneurship.

In its comprehensive sense, entrepreneurial development theory describes how a business organization's promoters and the organization itself work together to create a long-lasting, lucrative enterprise. According to the notion of entrepreneurial development, the expansion and viability of business organizations depend on elements including financial inclusion, enterprise management competencies, education, training, and skills. These factors, according to proponents of the idea of entrepreneurial development, are the elements of entrepreneurial development that are necessary for the success of business organizations.

Small and medium-sized businesses (SMEs)

Similarly, small and medium-sized businesses, or SMEs, are at the core of Africa's promising growth. Over 95 percent of all businesses in Sub-Saharan Africa are SMEs (Durica, Podhorska & Durana, 2019). Given their ability to lower poverty, increase a nation's GDP, and create jobs for the vast majority of people, it is noteworthy that SMEs are even more important (Durica et al., 2019). In addition to providing a source of revenue and jobs, the industry is especially significant because of its straightforward approach to meeting the requirements of the majority of Africans by providing reasonably priced goods and services at fair terms and pricing (Durica et al., 2019).

SMEs differ in size from tiny microbusinesses with one or two employees and very little or no growth to rapidly expanding medium-sized companies with millions of dollars in revenue and the majority with up to 250 people (Durica et al., 2019). The definitions of the firms also differ; some require millions of dollars to launch, while others require little capital (Denton, 2020). Many industries around the world use certain metrics, including as yearly turnover, total assets, number of workers, and capital investments, to identify SMEs (Boso, Adeleye, Donbesuur & Gyensare, 2019). There is no widely accepted definition of SMEs, as evidenced by the analysis of various definitions of SMEs around the world, which shows that it is extremely difficult to come to a consensus. In fact, one study conducted by (Boso et al., 2019) in 75 countries found that more than 75 definitions were used in the target countries. The definitions will continue to change according to the nation, industry, size of the company, assets, and goods. For example, companies with fewer than 500 employees are referred to as SMEs by Canadians and Americans, whereas small businesses are defined as those with fewer than 100 employees and revenue. In Belgium, SMEs are companies with fewer

than 100 employees, whereas in Germany, SMEs are companies with a maximum of 250 employees.

About 80% of the world's population makes their living and finds work in SMEs (Bushe, 2019). In particular, 30% of jobs are provided by microbusinesses, 20% by small businesses, and 10% by medium-sized firms (Alshami, Mamun & Rashide, 2020). Over 90% of enterprises in Africa are SMEs, and they account for roughly 50% of the continent's GDP (Alshami et al., 2020).

SMEs give Africa a platform to grow and serve as the bridge from small industries to huge, highly developed, sophisticated sectors.

Factors affecting SMEs success

Failure causes, according to (Amankwah-Amoah & Wang, 2019), are obstacles that may arise from a company's internal and external environments and have a negative impact on its performance. Due mostly to variations in the social and political climate of the host nation, these variables may differ between economies (Amankwah-Amoah, Adomako & Berko, 2022).

While the external environment refers to elements outside the organization, the internal environment relates to elements inside a corporation. Environmental elements over which a business has no influence are referred to as external effects, whereas internal.

The term "factors" refers to the attributes of the company.

Internal factors can frequently be foreseen ahead of time, but some external causes of business failure are less foreseeable (Amankwah-Amoah, Adomako & Berko, 2022).

Corporate owners and employees have the most control over internal factors, which are aspects of the corporate environment (Amankwah-Amoah et al., 2022). The following internal factors were suggested by various authors (Sherman & Seidel, 2019): a lack of a clear target market, a poorly chosen business location, an inability to create a long-term business plan, personal

issues (health, marital, etc.), ineffective advertising or promotional strategy, a lack of understanding of pricing strategy, inadequate financial accounting record keeping, a lack of formal college education, a lack of managerial experience, skills, and training, a lack of knowledge of the current business situation, a failure to consult with knowledgeable and professional businesspeople, a failure to sell what customers want, a poor relationship with customers, a lack of employee satisfaction, a disregard for legal issues, a disregard for competition, and a lack of adequate cash flow.

Government Regulations

Insufficient resource allocation and overzealous government regulation consistently jeopardize the small business sector's existence (Chamberlain & Smith, 2006). The owners' money and effort are wasted by the many laws and regulations related to the licensing process, which ultimately led to the failure of their companies. According to Arasti (2011), one of the main causes of small business failure was unsupportive government policies.

Herrington (2014) asserts that small firms find it extremely challenging to obtain the licenses and permits required to start and grow their operations. Less bureaucratic red tape and the development of a calm and stable environment are required to support the establishment of new companies and the expansion of existing ones, claim Nieman and Nieuwenhuizen (2008).

Eliminating significant bureaucratic rules and regulations that entrepreneurs must abide by should help increase the economy's competitiveness because more enterprises would enter the market, claim Nieman and Nieuwenhuizen (2009).

Another element that may affect entrepreneurs and cause them to be disappointed is the administrative framework of tax laws, business permits, and activity authorization; it may also make them less inclined to pursue their goals. A highly bureaucratic environment with

frequently changing regulations that could be harmful to businesses' success. According to Arsti (2011), "the regulations in Iran are affecting 11 different aspects of the life of a business and these aspects include starting a business, dealing with construction permits, registering property, obtaining credit, protecting investors, paying taxes, trading across borders, enforcing contracts, closing a business, getting electricity, and employing workers."

Small Business Mortality

According to Siow Song Teng et al. (2011), business success is the continuing of a business with no profits or losses, whereas business failure is the discontinuation of a business with losses to creditors and shareholders. Compared to small and big enterprises with more than 50 employees, employees at companies with fewer than 50 employees lost their jobs at a higher rate between 2007 and 2009 (Malchow-Moller, Schjerning, & Sorensen, 2011). Business failure happens when revenue declines or costs rise, resulting in a company's insolvency and limiting its potential for net equity. There are several ways to define high small business failure rates (Cochran, 2001). Effective management and sufficient money are two criteria that determine a company's failure rate (Salman, von Friedrichs, & Shukur, 2011). A firm manager's choices, actions, and company conduct are linked to business failure (Minello et al., 2014). The behavior of the manager, internal organizational factors, and external environmental factors can all have an impact on a company's success or failure (Minello et al., 2014). The SBA classifies small businesses according to their yearly revenue, number of employees, and industry (Salas-Fumas & Sanchez-Asin, 2011). According to Campbell et al. (2012), there are other ways to categorize small businesses by size, such as the number of owners and managers, yearly sales, net income, net worth, and a combination of these factors. Due to varying definitions of failure, researchers have incorrectly

suggested solutions based on inconsistent findings from previous studies (SalasFumas & Sanchez-Asin, 2011). There are several reasons why small firms fail, such as partnership disputes, bankruptcy, voluntary termination, and lost opportunities (Yallapragada & Bhuiyan, 2011).

Legal disputes, the owner's personal limits, elective cessation, mergers or acquisitions by other companies, and the owner's passing are additional causes of small business failure. According to Stafford, Bhargava, Danes, Haynes, and Brewton (2010), businesses need to endure in order to thrive. About 50% of new small firms make it for at least five years (U.S. Census Bureau, 2014). Around five years is how long less than half of new enterprises last. According to SBA data, around 75% of new enterprises fail during the first five years on average across all industries (SBA, 2011). Due to their restricted access to the credit markets, small businesses are more likely to file for bankruptcy than large ones (Salman et al., 2011). Over 80% of small businesses fail during the first six years when all factors contributing to firm termination are taken into account (Arasti et al., 2012). Only over half of all new small enterprises survive for five years, and roughly one-third survive for ten years or more (Hibbler-Britt & Sussan, 2015). Small businesses have a low survival rate.

Factors to the Longevity of Small Businesses

Formal Business Education, Knowledge, Skills, and SME longevity

For SMEs to be successful, their owners and managers must have a certain level of business expertise. Having this business knowledge and abilities aids those in charge of a company in planning, strategizing, and comprehending the risks. According to Bosworth and Turner (2018), formal education and training, work experience, and skill development are crucial prerequisites for small business expansion. Owners and managers of SMEs require both

conceptual and technical abilities to increase their productivity and capability.

Proficiency in business is a crucial strategic advantage. It is the culmination of abilities, insights, experiences, and skills that together provide a foundation for corporate success.

Research has demonstrated that capacity-building and employee knowledge work together to help business owners understand the business environment in which they operate and create effective strategies that can help them overcome these challenges that come with running a small business, like the ineffective and inefficient allocation of resources (Bosworth & Turner, 2018). There is evidence that small businesses are susceptible to a number of challenges that could impede their growth.

Since knowledge is intrinsically unique, it is extremely valuable. Business activity, the capacity to sell or accomplish more, and the ability to differentiate oneself from the competitors are all shaped and driven by business knowledge. For SMEs to succeed, having a trained workforce is essential. Finding individuals with the talents to support the expansion of the company is the duty of SMEs' owners and managers. There are several skill sets, and a mix of technical, management, business, and staff experience abilities is essential to pursuing growth and sustainability (Del Giudice, 2017).

According to Del Giudice (2017), SME owners and managers have utilized the business expertise, abilities, and experience of their staff as vital resources to gain a long-term competitive edge. Along with expertise and knowledge, the aforementioned abilities are also intangible assets. They are categorized as resources under RBT. These intangible resources are nonetheless unique and have a certain quality. The significance of skills and how they contribute to the success of small businesses is no longer up for debate. Small business owners and managers must develop plans to anticipate and address skill shortages because they have a detrimental impact on a company's ability to grow and survive.

Financial resources and SMEs longevity

To fulfill their business vision and goals, all entrepreneurs, regardless of age, size, or location, need financial resources like capital and operating cash flow. One crucial component that helps small businesses thrive and endure is financial resources. Every entrepreneur launching a new company needs certain resources, no matter how modest, and has to cover certain costs, like business registration fees, staff costs, and other ongoing expenditures during the initial stages of the company's existence.

Financial resources are therefore a crucial asset since linked resources like material and human resources could not be acquired without them. The development, expansion, and sustainability of any economy are greatly aided by the financing of SMEs. Finding both startup and operating finance has frequently been a problem for small business entrepreneurs. The assertion that funding is a major obstacle to SMEs' expansion and survival is supported by the estimated credit gap for SMEs in emerging markets, which is above US\$1 trillion.

Funds from personal savings, donations from family and friends, outside sources like financial institution loans, unofficial sources, crowdfunding, and the sale of private assets are some of the ways small business owners raise their startup capital (Bosworth & Turner, 2018). Bank loans, unofficial financial institutions, social networks, and social capital are some of the ways that small enterprises obtain funding (Bosworth & Turner, 2018). Small business owners and young start-ups frequently have to rely entirely on unofficial sources of funding because they are unable to show collateral security and business history.

Governments worldwide are very concerned in the performance and funding of SMEs because of their ability to promote social and economic growth. Leaders in Nigeria's corporate and government sectors have realized how crucial it is to fund SMEs, and as a result, they concur that one of the pillars of economic progress is the

expansion of SMEs. SMEs in Nigeria still face difficulties obtaining startup and expansion capital funding from traditional commercial banks, despite the fact that having access to financing allows them to grow their companies and acquire better technology for manufacturing, ensuring their competitiveness. Most commercial bank loans given to SMEs have terms that are much too short to cover any significant investment (Taiwo, 2016). To help finance SMEs, the Nigerian government has implemented a number of laws and programs.

Strategic planning and the longevity of small businesses

The idea of strategy has its roots in the military, where army generals outlined strategies for organizing their forces to destroy the opposition. The decisions and activities made within a company endeavour to accomplish its objectives and obtain a competitive advantage in its sector are referred to as business strategy. A business strategy acts as a roadmap for decision-making about resource allocation by outlining what owners and managers must do to accomplish the company's objectives (Dobni et al., 2016). The intended outcomes follow from the strategy.

Lack of strategic planning can result in missed opportunities and resource waste by creating a lack of a clear business strategy, accumulating contingencies, or making it difficult to gauge success or failure (Turner & Endres, 2017). An organization's approach for directing its daily operations is called strategic planning. Budgets, financial forecasts, and cash flow appear to be the main focus of typical SME strategic planning, with little attention paid to non-financial factors. Strategic planning encompasses three key elements. These elements include strategy formulation, which makes use of a company's goals, mission, and vision.

Owners and management of SMEs may find that strategic planning aids in creating a clear plan of action and certain steps to

create and maintain a competitive edge. Too many businesses today have made significant financial investments on beautiful blueprints and strategic planning, only to have them fail during the implementation phase.

According to Elbanna et al. (2016), strategic planning is a management fad that is on the verge of dying because it has gotten too logical over time. According to reports by Naradda et al. (2020), despite 87% of the sampled organizations reporting sentiments of disappointment and irritation with their systems, the majority of them remain strongly dedicated to strategic planning. Additionally, 59% of respondents primarily blame their dissatisfaction on difficulties putting ideas into action. Compared to their counterparts without a strategic plan, business owners and managers who employ an organized yet adaptable strategic planning approach perform better (Turner & Endres, 2017). These are the explanations offered by critics for why formal strategic planning might disappear in the coming years.

Methodology

Using a cross-sectional survey research design, this study examined a subset of small and medium-sized businesses across four (4) categories: cottage industries, export-oriented industries, domestic market-oriented industries, and supporting sectors. Small and medium-sized businesses (SMEs) come into these four industries, which make up our accessible population. Nevertheless, our study units include the managerial staff of the companies, meaning that our unit of analysis is at the organizational level of the organization. We received the information on the organization's functional departments from the human resources department. Spearman's rank order correlation coefficient statistical tool was used to analyze the fifty-three (53) copies that were recovered and examined. The questionnaire was the tool used to collect data from the respondents.

Results and Discussion

Table 4.1: Spearman's correlation between small business mortality and survival strategies

		Formal.Bus. edu	Finan.Reso u	Strat.Pla nn	Longevity	
Spearman's rho	Formal.Bus.e du	Correlation Coefficient	1.000	.874**	.901**	.974**
		Sig. (2- tailed)	.	.	.	.
		N	53	53	53	53
	Finan.Resou	Correlation Coefficient	.874**	1.000	1.000**	.883**
		Sig. (2- tailed)	.	.	.	.
		N	53	53	53	53
	Strat.Plann	Correlation Coefficient	.901**	1.000**	1.000	.922**
		Sig. (2- tailed)	.	.	.	.
		N	53	53	53	53
	Longevity	Correlation Coefficient	.974**	.883**	.922**	1.000
		Sig. (2- tailed)	.	.	.	.
		N	40	40	40	40

SPSS output, Version 20 – Field Survey, 2025

Table 4.1 shows the Spearman's rank order coefficient of correlation, which was used to determine the relationship between the factors used in this study (formal business education) and the longevity of small businesses among fifty-three (53) SMEs entrepreneurs in Nigeria who fall into four (4) categories: supporting industries, export-oriented industries, domestic market-oriented industries, and cottage industries. There is a statistically significant positive correlation between the longevity of small businesses and formal business education, knowledge, skills, and experience ($\rho = .974^{**}$, $p = .000 < 0.05$ (alpha value)). This suggests that formal business education has a significant impact on small business longevity.

Decision: We declare that there is a substantial correlation between the lifespan of small enterprises in Nigeria and formal

business education, knowledge, skills, and experience, and we reject the null hypothesis (H_0). Spearman's rank order coefficient of correlation is used in Table 4.1 to explore the relationship between the longevity of small businesses and the factors used in this study (financial resources) among fifty-three (53) SMEs entrepreneurs in Nigeria across four (4) categories (supporting industries, export-oriented industries, domestic market-oriented industries, and cottage industries).

A strong positive correlation coefficient value was reported between financial resources and longevity of small businesses which was statistically significant ($\rho = .883^{**}$, $p = .000 < 0.05$ (alpha value)); this being indicative that financial resources have significant relationship with small business longevity.

Decision: The null hypothesis (H0₂) is rejected and we state that there is significant relationship between financial resources and longevity of small businesses in Nigeria.

Table 4.1 presents Spearman's rank order coefficient of correlation run to find out the relationship between the factors that affect small businesses and their longevity as deployed in this study (strategic planning) and longevity of small businesses among fifty-three (53) SMEs entrepreneurs of along the four (4) categorizations (supporting industries, export-oriented industries,

domestic market-oriented industries, and cottage industries) in Nigeria. A strong positive correlation coefficient value was reported between strategic planning and longevity of small businesses which was statistically significant ($\rho = .922^{**}$, $p = .000 < 0.05$ (alpha value); this being indicative that strategic planning has significant relationship with small business longevity.

Decision: The null hypothesis (H0₃) is rejected and we state that there is significant relationship between strategic planning and longevity of small businesses in Nigeria.

Table 4.2: Summary of Findings

The findings of this study are summarized as follows;

H ₀	Statement	Result	Remark	Decision
1	There is no significant relationship between formal business education, knowledge, skills and experience and longevity of small businesses	$\rho = .974^{**}$, $p = .000 < 0.05$	Strong positive and significant relationship	Rejected
2	There is no significant relationship between financial resources and longevity of small businesses	$\rho = .883^{**}$, $p = .000 < 0.05$	Strong positive and significant relationship	Rejected
3	There is no significant relationship between strategic planning and longevity of small businesses	$\rho = .922^{**}$, $p = .000 < 0.05$	Strong positive and significant relationship	Rejected

Researcher's Summary

Discussion of Findings

The study examined the relationship between small business mortality and survival strategies among selected SMEs in Nigeria; three (3) hypotheses were formulated as tentative answers to research questions raised and were tested to find support for the propositions, thus;

- iv. The result of the tested H_{01} revealed the existence of a significant relationship between formal business education, knowledge, skills and experience and small business longevity; ($\rho = .974^{**}$, $p = .000$); this empirical result is corroborated with views from literature; thus, according to Bosworth and Turner (2018), formal education and training, work experience, and skill development are crucial prerequisites for small business expansion. Owners and managers of SMEs require both conceptual and technical abilities to increase their productivity and capability. Proficiency in business is a crucial strategic advantage. It is the culmination of abilities, insights, experiences, and skills that together provide a foundation for corporate success.
- v. The result of the tested H_{02} revealed the existence of a significant relationship between financial resources and longevity of small business; ($\rho = .883^{**}$, $p = .000$); this empirical result is corroborated with views from literature; thus, small business owners and young start-ups frequently have to rely entirely on unofficial sources of funding because they are unable to show collateral security and business history. The assertion that funding is a major obstacle to SMEs' expansion and survival is supported by the estimated credit gap for SMEs in emerging markets, which is above US\$1 trillion. Funds from personal savings, donations from family and friends, outside sources like financial institution loans, unofficial sources, crowdfunding, and the sale of private assets are some of the ways small business owners raise their startup capital (Bosworth & Turner, 2018).

The result of the tested H_{03} revealed the existence of a significant relationship between strategic planning and longevity of small businesses; ($\rho = .922^{**}$, $p = .000$); this empirical result is corroborated with views from literature; thus, the assumed link between strategic planning and SME growth has already been covered by a sizable number of scholars. According to Ralph et al. (2020), strategic planning has gained a lot of attention. Since the mid-1990s, studies on strategic business planning in SMEs have shown that this field is still in its infancy and that there is inconsistent data regarding its correlation with success.

Conclusions

The following conclusions are reached in the course of the research undertaking;

Formal education and training, work experience, and skill development are crucial prerequisites for small business longevity and expansion. Owners and managers of SMEs require both conceptual and technical abilities to increase their productivity and capability through obtaining proficiency in business which becomes a crucial strategic advantage.

The assertion that funding is a major obstacle to SMEs' expansion and survival is supported by the estimated credit gap for SMEs in emerging markets, which is above US\$1 trillion. Funds from personal savings, donations from family and friends, outside sources like financial institution loans, unofficial sources, crowdfunding, and the sale of private assets are some of the ways small business owners raise their startup capital and through it survive in their establishments

One of the most important steps in the strategic planning process is figuring out an organization's mission, goals, strategic alternatives, and policies so that resources can be acquired and distributed to meet organizational goals.

Recommendations

For sustainability and expansion, present and future small business owners should take advantage of the six action items suggested by this study. Current and prospective small business owners want to concentrate on (a) customer satisfaction tactics, (b) aggressive marketing tactics, (c) sincere dedication to the enterprise, (d) strategies for human capital, (e) strategies for business understanding, and (f) efficient supervisory tactics.

- iv. For SMEs to be successful, their owners and managers must have a certain level of business expertise. Having this business

References

- Alshami S, Mamun A, Rashide S (2020). Causes of failure among Malaysian female entrepreneurs: A qualitative case study of Malaysian microcredit borrowers. Emerald Publishing Limited 12(1):43-71.
- Amankwah-Amoah, J., & Wang, X. (2019). Business failures around the world: Emerging trends and new research agenda. *Journal of Business Research*, 98, 367–369.
- Amankwah-Amoah, J., Adomako, S., & Berko, D. O. (2022). Once bitten, twice shy? The relationship between business failure experience and entrepreneurial collaboration. *Journal of Business Research*, 139, 983-992.
- Boso, N., Adeleye, I., Donbesuur, F., & Gyensare, M. (2019). Do entrepreneurs always benefit from business failure experience? *Journal of Business Research*, 98, 370-379.
- Bushe, B. (2019). The Causes and Impact of Business Failure among Small to Micro and Medium Enterprises in South Africa. *Africa's Public Service Delivery and Performance Review*, 7, 2310-2195
- Chukwuka, E. J.(2025). "Entrepreneurial Wealth creation theory," *World Journal of Finance and Investment Research*, vol. 9, no. 4, pp. 49–60,
- Chukwuka, E. J. (2025). Strategies of starting and sustaining a business without incurring high knowledge and abilities aids those in charge of a company in planning, strategizing, and comprehending the risks.
- The owners of these small businesses should strive to differentiate themselves from the competitors by investing more in business knowledge.
- Small business owners and managers must look at their operations from a long-term perspective and make sure that sufficient plans or strategies are in place to meet the company's long-term vision, purpose, goals, and objectives.
- interest loans. Lagos, Nigeria: Alabaster Publishing Technologies Ltd, 2016.
- Chukwuka E. J., and Imide, I.,(2022)"Assessing the strategic effect of small and medium scale enterprises on economic development: Evidence from Delta State," *FUWJBFS Journal of Banking and Financial Studies*, vol. 2, no. 2, p. 15
- kwuka E.J., Igweh F. (2024) Feasibility Studies and Entrepreneurial Success of Small and Medium Scale Businesses in Asaba. *Nigerian Journal of Management Sciences* 25(1) 134-141
- na, D., & Gupta, D. (2021). A Study on Factors that contribute to the failure of startups. *Int. J. of Aquatic Science*, 12(2), 2634-2640.
- Denton, A. (2020). Why Do Most Small Businesses in Liberia Fail. *Open Journal of Business and Management*, 8, 1771-1815
- Du Jardin, P. (2018). Failure pattern-based ensembles applied to bankruptcy forecasting. *Decision Support Systems*, 107, 64-77.
- Durica, M., Podhorska, I., Durana, P. (2019). Business failure prediction using cart-based model: A case of

- Slovak companies. *Ekonomicko-manazerske spektrum*, 13(1), 51-61.
- Gartenstein, D., & Seidel, M. (2019). Why Is Strategic Planning Important to a Business? *Chron*.
<https://smallbusiness.chron.com/strategic-planning-important-business-2671.html>
- Gogas, P., Papadimitriou, T. & Agrapetidou, A. (2018). Forecasting bank failures and stress testing: A machine learning approach. *International Journal of Forecasting*, 34(3), 440-455.
- Gottschalk, Sandra, and Bettina Müller. (2022) "A second chance for failed entrepreneurs: a good idea?." *Small Business Economics*: 1-23.
- Gumel, B. I. (2017). Strategizing for Sustaining Small Business Enterprises in Nigeria. *IOSR Journal of Business and Management*, 19, 8-25.
- Lee, C. K., Cottle, G. W., Simmons, S. A., & Wiklund, J. (2021). Fear not, want not: Untangling the effects of social cost of failure on high-growth entrepreneurship. *Small Business Economics*, 57(1), 531-553.
- Mohamed, A. K. (2022). What are the causes of small business failure in Burao, Somaliland?. *African Journal of Business Management*, 16(2), 32-41.
- Naumzik, C., Feuerriegel, S., & Weinmann, M. (2022). I will survive: Predicting business failures from customer ratings. *Marketing Science*, 41(1), 188-207.
- Okpalaojiego E. C (2021). Causes and Implications of Insecurity on Entrepreneurial Development and Small Business Operations in Nigeria: The Panacea. *Academic Journal of Current Research* ,8(6):95-109.
- Schaefer, P. (2019). Why Small Businesses Fail: Top 7 Reasons for Startup Failure. *Business Know-How*.
<https://www.businessknowhow.com/startup/business-failure.htm>
- Sherman, F., & Seidel, M. (2019). Why Is the Location of a Business Important? *Chron*.
<https://smallbusiness.chron.com/location-business-important-43239.html>
- Sibanda, V., & Ndhlela, M. (2018). Customer Relationship Management as a Customer Retention Tool: A Case Study of OK Zimbabwe Limited. *EPH—International Journal of Business and Management Science*, 4, 2208-2190



Management of the Code of Conduct and Employees' Performance in Public Service Agencies in Delta State

Francisca Ibhade NKADI¹, Akpomuvire MUKORO *², Onofere Princewill OKEREKA³

^{1,2,3}Department of Public Administration, Faculty of Management Science,
Delta State University, Abraka

*Corresponding Author: akpomuviremukoro@delsu.edu.ng

Publication Date: 2025/06/30

Abstract

This study investigated the impact of the management of the code of conduct on employees' performance within selected public service agencies in Delta State, Nigeria. The research examined the influence of Employee Awareness Levels (EAL), Training Sessions on Ethical Conduct (TSEC), Compliance Rates with Code of Conduct Regulations (CRCCR), Disciplinary Actions Taken (DAT), and Transparency and Accountability Indices (TAI) as independent variables, while Employee Performance (EP) was the dependent variable. A descriptive survey research design was adopted to collect primary data from a sample of 396 civil servants across ten ministries and agencies in the state. However, two hundred and thirty-two (232) were retrieved and properly completed, representing 58.59 percent of the total questionnaires administered. The study employed descriptive statistics to summarize the data, correlation analysis to examine the strength and direction of relationships between variables, and multiple regression analysis (Ordinary Least Squares) via Social Sciences (SPSS) version 23 to determine the impact of each independent variable on the dependent variable. The study's findings revealed that each of the independent variables had a statistically significant positive impact on employee performance. The study concluded that management of the code of conduct has a significant impact on employees' performance within selected public service agencies in Delta State, Nigeria. The study recommends that government agencies should enhance communication and awareness programs to ensure that all employees fully understand the codes of conduct and ethical expectations.

Keywords: Code of Conduct, Employee Performance, Public Service, Management, Delta State

Introduction

In the contemporary global landscape, the management of codes of conduct within public service institutions has garnered significant attention as a pivotal mechanism for enhancing employee performance and ensuring ethical governance (Ethics & Compliance Initiative, 2022). The increasing complexity of public administration, coupled with heightened public scrutiny, necessitates robust ethical frameworks to guide employee behavior and decision-making processes (Fair

Labor Association, 2022). Recent studies have underscored the integral role that well-structured codes of conduct play in fostering a culture of accountability, transparency, and professionalism among public servants (Kasase & Hapompwe, 2025). Moreover, the implementation of comprehensive training sessions on ethical conduct has been linked to improved compliance rates with established regulations, thereby mitigating instances of misconduct and enhancing overall

organizational performance (Adebayo & Abdulrazaq, 2022).

Globally, there is a growing recognition of the importance of ethical leadership in public administration. Ethical leadership not only influences employee behavior but also shapes organizational culture, leading to improved job satisfaction and performance (Office of Government Ethics, 2022). For instance, a study examining the influence of ethical leadership on public servants in Somalia found that ethical leadership directly and positively impacts public servants' trust in leaders, employee loyalty, and motivation (Adebayo & Abdulrazaq, 2022). This underscores the significance of ethical leadership in fostering a conducive work environment that promotes ethical behavior and enhances employee performance.

Across Africa, the emphasis on ethical standards within public service has been increasingly pronounced, with various nations instituting codes of conduct to address challenges related to corruption, inefficiency, and public distrust (World Bank, 2022). For instance, in Zambia, research has highlighted the significance of employee awareness levels and the enforcement of disciplinary actions in promoting ethical behavior within public institutions (Kasase & Hapompwe, 2025). Similarly, in Tanzania, the Code of Ethics and Conduct for the Public Service serves as a foundational document outlining expected behaviors and ethical standards, aiming to enhance service delivery and public confidence (Government of Tanzania, 2022). These regional initiatives underscore the broader continental commitment to embedding ethical considerations within the fabric of public administration (Transparency International, 2022).

In Nigeria, the public service sector has grappled with persistent challenges related to ethical conduct, accountability, and employee performance (Chatham House, 2025). Despite the establishment of codes of conduct and

various institutional arrangements aimed at promoting integrity, issues such as corruption, nepotism, and inefficiency remain prevalent (Transparency International, 2024). The Nigerian government's efforts to address these concerns have included the implementation of training programs on ethical conduct and the establishment of disciplinary mechanisms to enforce compliance (Imene, 2023). However, the effectiveness of these measures has been mixed, with studies indicating a need for more comprehensive strategies that integrate employee awareness, regular training, and transparent accountability systems (Ukeje, 2023).

Focusing specifically on Delta State, Nigeria, the public service sector presents a microcosm of the broader national challenges. Research conducted within the state has revealed that while codes of conduct exist, their implementation and enforcement are often inconsistent, leading to varying levels of employee compliance and performance (Imene, 2023). Factors such as inadequate training sessions on ethical conduct, limited awareness among employees, and insufficient disciplinary actions contribute to the suboptimal adherence to established regulations (Ukeje, 2023). Furthermore, the transparency and accountability indices within the state's public service institutions have been questioned, highlighting the need for a more integrated approach to ethical governance (Transparency International, 2024).

The interplay between the management of codes of conduct and employee performance in Delta State's public service underscores the importance of a multifaceted strategy that encompasses employee awareness levels, training sessions on ethical conduct, compliance rates with regulations, disciplinary actions, and transparency and accountability indices. By examining these variables collectively, it becomes possible to identify the strengths and weaknesses within

the current system and propose targeted interventions aimed at enhancing ethical standards and employee performance. Such an approach aligns with global best practices and offers a pathway toward more effective and trustworthy public service delivery in Delta State and beyond.

The main objective of this study was to examine the impact of the management of the code of conduct on employees' performance within selected public service agencies in Delta State, Nigeria. The specific objectives are to:

- i. assess the impact of employee awareness regarding the code of conduct on employees' performance within selected public service agencies in Delta State, Nigeria.
- ii. evaluate the impact of training sessions on ethical conduct on employees' performance within selected public service agencies in Delta State, Nigeria.
- iii. determine the compliance rate with code of conduct regulations on employees' performance within selected public service agencies in Delta State, Nigeria.
- iv. analyze the impact of disciplinary actions taken on employees' performance within selected public service agencies in Delta State, Nigeria.
- v. examine the impact of transparency and accountability indices on employees' performance within selected public service agencies in Delta State, Nigeria.

Conceptual Review

Management of Code of Conduct

Managing the Code of Conduct in Nigeria's public service is essential for promoting ethics, transparency, and accountability. Established under the Fifth Schedule of the 1999 Constitution, the Code of Conduct Bureau (CCB) is responsible for enforcing ethical standards among public officers (Code of Conduct Bureau, 2023). However, its

implementation faces challenges. The Code is often seen as complex and ambiguous, making it difficult for public servants to understand and comply (TUGAR, 2021). Weak enforcement, limited resources, and low political will have also contributed to a culture of impunity, undermining ethical standards (Umar & Adamu, 2023; Ahmad, Olohigbe, & Momoh, 2023).

To address these issues, reforms like the Draft Nigerian Public Sector Governance Code emphasize ethics, accountability, training, and whistleblowing policies (Arugu & Coastman, 2023; Gberevbie, 2022). Integrating ethical standards into the Public Service Rules (PSR) provides clear guidance on behavior and disciplinary measures, but effectiveness depends on consistent application and leadership commitment (Marshall & Murtala, 2020; Otinche, 2021). Regular capacity-building programs, workshops, and seminars can strengthen understanding of ethical responsibilities and foster a culture of accountability (Gberevbie, 2022; Arugu & Coastman, 2023).

Civil society and the media also play a key role by monitoring public officers and exposing misconduct, extending oversight beyond internal mechanisms (Umar & Adamu, 2023; Ahmad et al., 2023). Effective management of the Code thus requires simplifying its provisions, strengthening enforcement, integrating ethics into public service rules, investing in training, and engaging external oversight. These combined efforts help uphold integrity, transparency, and accountability in Nigeria's public service (TUGAR, 2021; Code of Conduct Bureau, 2023; Arugu & Coastman, 2023).

Employees Performance

Employee performance in Nigeria's public service is a key driver of administrative efficiency and national development. Research shows that factors such as performance management systems,

motivation, training, leadership, and organizational culture significantly influence productivity. Strong performance planning positively impacts employee output, though other components like capacity-building, performance reviews, and rewards are less effective when poorly implemented (Ijewereme, 2023). Motivation is essential for improving efficiency, with effective strategies shown to enhance performance (Osisioma & Audu, 2022). Training and development programs are important, but current research and development initiatives often fail to meet workforce needs, highlighting the need for more practical, targeted programs (Egbon-Charles et al., 2024). Leadership also affects performance, with communication, leading by example, on-the-job training, motivation, and teamwork being key strategies (Elias-Fatile, 2021). Similarly, positive interpersonal relations within organizational culture improve public service outcomes (Amakiri et al., 2025).

Personnel management practices, including recruitment, training, performance evaluation, compensation, and motivation, further enhance employee productivity (Kpurunee et al., 2024). However, challenges like inadequate resources, weak policy implementation, poor appraisal systems, and insufficient training continue to hinder performance (Obidike & Onuora, 2025; Ogunbodede & Lawal, 2024). Addressing these issues requires strengthening performance management, applying effective motivational strategies, offering targeted training, promoting good leadership, and fostering a supportive culture. Policymakers must prioritize reforms in these areas to sustainably improve public service performance and national development (World Bank, 2023; Transparency International, 2023).

Employee Awareness Levels and Employee Performance in the Public Service in Nigeria

Employee awareness in Nigeria's public service is crucial for effective performance and service delivery. Awareness, understanding organizational goals, policies, procedures, and individual roles, helps align staff efforts with institutional objectives, enhancing efficiency and accountability. Lack of awareness, however, can cause confusion, reduce productivity, and encourage mismanagement.

Performance management systems play a key role in building awareness. Studies show that clear performance planning improves productivity, while poorly aligned capacity-building programs often fail to enhance understanding of roles (Ijewereme, 2023). Leadership strategies, such as effective communication, leading by example, on-the-job training, motivation, and teamwork, also strengthen awareness and engagement (Elias-Fatile, 2021). Public Service Motivation (PSM) further influences awareness, with intrinsically motivated employees showing higher understanding of organizational goals and stronger commitment (Oladimeji & Abdulkareem, 2024). Performance appraisal systems and training programs are intended to support awareness, but challenges like bias, politicization, and poorly designed training limit their effectiveness (Sakpere, 2022; Egbon-Charles et al., 2024).

Organizational culture, including positive interpersonal relations, enhances awareness by promoting communication, collaboration, and a sense of belonging (Amakiri et al., 2025). Motivation strategies through recognition, incentives, and career development also encourage proactive engagement and alignment with organizational goals (Osisioma & Audu, 2022). Persistent challenges, such as inadequate resources, weak policy implementation, and insufficient training, hinder awareness and performance (Obidike

& Onuora, 2025; Ogunbodede & Lawal, 2024). Addressing these issues requires integrated efforts: strengthening performance management, leadership, motivation, training, and organizational culture. Promoting employee awareness is both an organizational and leadership responsibility and is essential for improving public service performance and national development.

Training Sessions on Ethical Conduct and Employee Performance in the Public Service in Nigeria

Training on ethical conduct is vital for promoting integrity, accountability, and performance in Nigeria's public service. Such training equips employees with the knowledge and skills to handle ethical dilemmas and align their actions with organizational values. In a context historically affected by corruption and inefficiency, ethical training is a key tool for improving governance and service delivery. Studies show that clear performance expectations reinforced through ethical training can enhance both awareness and productivity (Ijewereme, 2023). However, many capacity-building programs are poorly aligned with practical challenges, highlighting the need for context-specific training that addresses real-world public service issues. Leadership also plays a crucial role, as leaders who communicate effectively, lead by example, and integrate ethics into development programs foster a culture of integrity (Elias-Fatile, 2021).

Interpersonal relations and motivation further influence ethical behavior. Training that promotes fairness, respect, and collaboration, combined with recognition and career development, encourages employees to apply ethical principles in their work (Amakiri et al., 2025; Osisoma & Audu, 2022). Aligning training with employees' values and organizational goals enhances its effectiveness (Oladimeji & Abdulkareem,

2024). Challenges such as inadequate funding, lack of skilled trainers, and political interference limit the impact of ethical training (Obidike & Onuora, 2025; Ogunbodede & Lawal, 2024). Overcoming these requires strong leadership commitment, high-quality training, integration with performance appraisal, and a supportive organizational culture. When well-designed and implemented, ethical training can significantly improve employee performance and accountability in Nigeria's public service.

Compliance Rate with Code of Conduct Regulations and Employee Performance in the Public Service in Nigeria

Compliance with the code of conduct is essential for promoting ethics, integrity, and accountability among public servants in Nigeria. It provides a framework for guiding behavior, fostering transparency, and building public trust, especially in a context challenged by corruption, inefficiency, and political interference. Performance management systems help ensure adherence to ethical standards. Clear integration of compliance into performance planning and appraisals boosts productivity and commitment, though poorly aligned training programs often fail to reinforce these expectations (Ijewereme, 2023). Leadership is equally important; leaders who model ethical behavior, communicate expectations, and provide supervision create a culture where compliance is part of daily operations (Elias-Fatile, 2021).

Interpersonal relations, motivation, and public service commitment also influence compliance. Trusting, respectful relationships and intrinsic motivation encourage adherence to ethical regulations, while recognition and rewards further reinforce compliance (Amakiri et al., 2025; Osisoma & Audu, 2022; Oladimeji & Abdulkareem, 2024). Challenges such as weak enforcement, limited training, political interference, and a culture of impunity hinder consistent compliance

(Obidike & Onuora, 2025; Ogunbodede & Lawal, 2024). Addressing these requires strengthening performance management, leadership, ethical training, motivation, and organizational culture. A holistic approach is crucial for enhancing compliance, employee performance, and public trust in Nigeria's public service.

Disciplinary Actions Taken and Employee Performance in the Public Service in Nigeria

Disciplinary actions are key to shaping behavior and improving performance in Nigeria's public service. When applied fairly and consistently, they correct misconduct, deter future violations, and promote a culture of accountability and efficiency, especially in a context challenged by corruption, absenteeism, and inefficiency (Agbor, 2023; Ajike, 2023). Research shows that measures such as reprimands, suspensions, demotions, and terminations positively influence employee performance and commitment (Agbor, 2023; Ajike, 2023; Ijewereme, 2023). However, political interference, favoritism, and lack of transparency often undermine their effectiveness, eroding morale and allowing indiscipline to persist (Ukeje et al., 2024; Ogunbodede & Lawal, 2024).

Leadership plays a critical role, as ethical leaders who enforce discipline consistently set positive examples and build trust (Elias-Fatile, 2021; Amakiri et al., 2025). Integrating disciplinary procedures into performance management systems further reinforces accountability, helping employees understand that violations have consequences and encouraging alignment with organizational goals (Ijewereme, 2023; Osisioma & Audu, 2022). Addressing challenges requires fair and transparent disciplinary systems, strong leadership, ethical training, capacity building, and a supportive organizational culture. When effectively implemented, disciplinary actions become strategic tools for fostering

accountability, integrity, and enhanced public service delivery (Agbor, 2023; Elias-Fatile, 2021; Ogunbodede & Lawal, 2024).

Transparency and Accountability Indices and Employee Performance in the Public Service in Nigeria

Transparency and accountability are essential for effective governance and improved employee performance in Nigeria's public service. They foster openness, reduce corruption, build trust, and motivate employees to perform efficiently, particularly in a context historically challenged by mismanagement and poor service delivery (Ashiru & Lawal, 2024; Ogunbodede & Lawal, 2024).

Integrating transparency measures into public service operations, such as the Transparency and Integrity Index (TII), shows a clear link between openness and employee productivity. Agencies with higher transparency scores, like the Development Bank of Nigeria, demonstrate better engagement and service outcomes compared to less transparent institutions (Center for Fiscal Transparency and Public Integrity, 2024; Transparency International, 2023). Leadership plays a key role: ethical leaders who communicate openly and make accountable decisions foster trust and commitment, boosting performance (Elias-Fatile, 2021; Obidike & Onuora, 2025). Digital initiatives like IPPIS and TSA have also strengthened transparency, reduced fraud, and created a clearer, accountable work environment (Ogunbodede & Lawal, 2024).

Performance management systems linked to accountability metrics further improve employee output, but challenges like political interference, weak enforcement, and bureaucracy remain (Ezeajughu, 2021; Ogunbodede & Lawal, 2024). Addressing these requires strong leadership, robust frameworks, continuous monitoring, and a culture of integrity. By integrating transparency and accountability into

leadership, digital systems, and performance management, Nigeria's public service can foster ethical, efficient, and high-performing employees (Ashiru & Lawal, 2024; Obidike & Onuora, 2025).

Theoretical Framework

This study is grounded in Agency Theory, developed by Jensen and Meckling (1976), which examines the relationship between principals (citizens/government) and agents (public servants) in situations where interests may diverge and information is uneven. In the public service, the theory explains that managers (agents) may act in self-interest unless effective controls are in place to align their actions with organizational goals. It provides a useful framework for understanding how ethical management practices can improve employee performance by reducing opportunism and agency costs.

In Delta State's public service, mechanisms such as Employee Awareness Levels (EAL), Training Sessions on Ethical Conduct (TSEC), Compliance with Code of Conduct Regulations (CRCCR), Disciplinary Actions Taken (DAT), and Transparency and Accountability Indices (TAI) help mitigate agency problems. High employee awareness reduces information gaps between principals and agents, fostering trust and accountability (Ashiru & Lawal, 2024; Ezeajughu, 2021). Ethical training equips employees to make sound decisions, lowering the risk of self-serving behavior (Osisioma & Audu, 2022; Ajike, 2023).

Compliance with ethical codes ensures alignment with organizational goals, while disciplinary actions act as deterrents against misconduct, reinforcing accountability (Joseph & Ataire, 2022; Agbor, 2023). Transparency and accountability measures reduce information asymmetry, making actions observable and discouraging opportunistic behavior (Obidike & Onuora, 2025; Ogunbodede & Lawal, 2024).

Agency theory thus links these variables, showing how awareness, training, compliance, discipline, and transparency collectively align employee behavior with public service objectives. Applying this theory in Delta State can guide policies that enhance ethical conduct, boost employee performance, and strengthen public trust, ultimately supporting effective governance and developmental goals.

Empirical Review

Recent studies across Africa highlight the importance of ethical codes, training, transparency, and disciplinary measures in enhancing public sector employee performance. Kasase and Hapompwe (2025) found that while employees in Lusaka's public secondary schools were generally aware of the code of conduct, understanding and adherence varied, and enforcement was inconsistent. They recommended clearer policies, ethical training, and regular monitoring to improve outcomes.

Kyambade and Namatovu (2025) in Uganda showed that ethical leadership and codes of ethics positively influence employee integrity, with job satisfaction enhancing this effect. Public sector organizations were advised to strengthen ethics programs and focus on employee satisfaction. Masenya (2025) highlighted that corruption in South Africa's public sector undermines governance, recommending strong ethical frameworks and accountability mechanisms. Similarly, Seliti et al. (2025) demonstrated that staff training across Africa improves performance, advocating for diverse and performance-linked training programs.

Studies in Uganda, Ethiopia, Tanzania, Botswana, and South Africa (Nansubuga & Kaggwa, 2025; Tadesse & Bekele, 2025; Mwakyusa & Mbise, 2024; Dlamini & Phiri, 2024; Khoza & Dlamini, 2023) emphasized that consistent disciplinary actions, ethical training, and employee awareness significantly enhance compliance, ethical

behavior, and service delivery outcomes. In Nigeria, research by Aliyu & Lawal (2024), Kpurunee et al. (2024), Ezeanolue & Chukwuemeka (2024), Ogunbodede & Lawal (2024), and Omoniyi & Akintoye (2024) underscores that transparency, accountability, training, and clear policies are crucial for improving public service efficiency, reducing corruption, and fostering trust.

Studies in Kenya and Senegal (Otieno & Wanjiku, 2023; Diop & Ndiaye, 2023) further confirmed that transparency initiatives and timely disciplinary measures improve employee compliance, motivation, and performance. Finally, Akosa et al. (2019) identified internal challenges, like staff immunity and nepotism, and external challenges, including political interference, as barriers to implementing Ghana's civil service code, recommending stronger enforcement and better resource allocation. Overall, these studies demonstrate that ethical awareness, training, compliance monitoring, leadership, transparency, and fair disciplinary systems are key to fostering integrity, enhancing employee performance, and improving public service delivery across African contexts.

Research Methodology

This study uses a descriptive survey research design, which is ideal for systematically gathering data to describe the characteristics of a population or phenomenon. This approach allows for examining the relationship between ethical management practices, such as Employee Awareness Levels (EAL), Training Sessions on Ethical Conduct (TSEC), Compliance with Code of Conduct Regulations (CRCCR), Disciplinary Actions Taken (DAT), and Transparency and Accountability Indices (TAI) and employee performance in Delta State's public service. The design is particularly suitable as it enables data collection from a large population, allowing the findings to be generalized across the workforce.

The target population includes all civil servants in Delta State, Nigeria, who form the backbone of the state's administrative machinery. As of July 2023, there are approximately 39,648 civil servants on the state payroll, reflecting the size and complexity of the public service sector. Delta State's diverse socio-economic and administrative structure encompasses multiple ministries, departments, and agencies, making it a representative setting for the study.

Table 1: Distribution of Civil Servants Across Selected Ministries and Agencies

S/N	Ministry/Agency	Estimated Number of Employees
1	Delta State Civil Service Commission	5,000
2	Delta State Ministry of Education	6,500
3	Delta State Ministry of Health	4,800
4	Delta State Ministry of Finance	3,200
5	Delta State Ministry of Works	3,000
6	Delta State Ministry of Agriculture	2,500
7	Delta State Ministry of Justice	2,000
8	Delta State Ministry of Environment	1,800
9	Delta State Ministry of Women Affairs, Community, and Social Development	1,500
10	Delta State Ministry of Youth Development	1,348
Total		39,648

Source: Adapted from Delta State Government Records (2024)

The study used Taro Yamane's formula (1967) to determine an appropriate sample size. This formula is widely used in social science research to calculate a statistically significant and manageable sample for large populations. It provides a simple method that considers the total population and the desired precision, ensuring the selected sample reliably represents the broader population. Taro Yamane's formula is expressed as:

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

Where:

n = sample size

N = the total population

e = the desired level of precision (margin of error), often set at 0.05 for a 95% confidence level

Substituting the values:

$$n = \frac{1 + 39,648(0.05)^2}{39,648} = \frac{1 + 99.12}{39,648} = \frac{100.12}{39,648} \approx 396$$

Therefore, the sample size for the study is approximately 396 respondents.

The primary research instrument employed in this study is a structured questionnaire carefully designed to capture data on the independent variables, Employee Awareness Levels (EAL), Training Sessions on Ethical

Conduct (TSEC), Compliance Rate with Code of Conduct Regulations (CRCCR), Disciplinary Actions Taken (DAT), and Transparency and Accountability Indices (TAI), as well as the dependent variable, Employee Performance. The questionnaire is divided into seven distinct sections to ensure comprehensive coverage of the research objectives. Section A collects demographic information from the respondents, providing context for their responses. Sections B through G focus on the key study variables: Section B addresses Employee Awareness Levels (EAL); Training Sessions on Ethical Conduct (TSEC); Compliance Rate with Code of Conduct Regulations (CRCCR); Disciplinary Actions Taken (DAT); Transparency and Accountability Indices (TAI); and Employee Performance. Each item in Section B is measured using a five-point Likert scale, enabling respondents to express their level of agreement with each statement. The response options on the scale include Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), and Strongly Agree (5). This structured format ensures consistency in

responses and facilitates accurate analysis of the data collected.

The data collected through the questionnaires are analyzed using SPSS version 23, a widely used software for both descriptive and inferential statistical analysis in social science research. This tool allows for efficient and accurate examination of complex data, helping the researcher generate meaningful insights. The study applies inferential statistics, specifically Ordinary Least Squares (OLS) regression analysis, to explore the relationships between the independent variables, Employee Awareness Levels (EAL), Training Sessions on Ethical Conduct (TSEC), Compliance Rate with Code of Conduct Regulations (CRCCR), Disciplinary Actions Taken (DAT), and Transparency and Accountability Indices (TAI) and the dependent variable, Employee Performance.

OLS regression is employed because it effectively estimates the linear relationships between a continuous outcome and multiple predictor variables.

Results and Discussion

A total of three hundred and ninety-six (396) questionnaires were administered to civil servants in the Delta State Civil Service Commission, Ministry of Education, Ministry of Health, Ministry of Finance, Ministry of Works, Ministry of Agriculture, Ministry of Justice, Ministry of Environment, Ministry of Women Affairs, Community and Social Development, and the Ministry of Youth Development in Delta State, Nigeria. However, two hundred and thirty-two (232) were retrieved and properly completed, representing 58.59 percent of the total questionnaires administered.

Test of Hypotheses

Table 2: Correlations

	EP	EAL	TSEC	CRCCR	DAT	TAI
Pearson Correlation EP	1.000					
EAL	.131	1.000				
TSEC	.389	.153	1.000			
CRCCR	.523	.117	.202	1.000		
DAT	.532	.086	.184	.970	1.000	
TAI	.504	.251	.403	.587	.580	1.000

Source: SPSS Output, 2025

Employee Performance (EP) was positively correlated with all other variables. EP had a weak positive correlation with Employee Awareness Levels (EAL) at 0.131, a moderate positive correlation with Training Sessions on Ethical Conduct (TSEC) at 0.389, and strong positive correlations with Compliance Rate with Code of Conduct Regulations (CRCCR) at 0.523, Disciplinary Actions Taken (DAT) at 0.532, and Transparency and Accountability Indices (TAI) at 0.504. This suggests that higher levels of CRCCR, DAT,

and TAI are particularly associated with higher employee performance.

Among the independent variables, EAL had weak positive correlations with TSEC (0.153), CRCCR (0.117), DAT (0.086), and TAI (0.251). TSEC showed positive correlations with CRCCR (0.202), DAT (0.184), and TAI (0.403), with a moderate relationship between TSEC and TAI. CRCCR and DAT exhibited an extremely strong positive correlation (0.970), indicating almost perfect alignment, while CRCCR and TAI were moderately correlated (0.587). DAT and TAI also showed

a strong correlation (0.580). Overall, the correlation matrix highlighted significant relationships among the variables, particularly the strong links between EP and CRCCR, DAT, and TAI. These results demonstrate the

interconnected nature of the study variables and provide a solid basis for further multivariate analyses.

Table 3: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	.450	.097		4.639	.001
EAL	.142	.052	.027	2.731	.015
TSEC	.150	.033	.156	4.482	.001
CRCCR	.320	.134	.020	2.388	.013
DAT	.463	.128	.478	3.604	.002
TAI	.260	.055	.149	4.727	.001

a. Dependent Variable: EP

Source: SPSS Output, 2025

Table 3 presented the regression coefficients, standard errors, standardized beta coefficients, t-values, and significance levels (p-values) for each of the independent variables (EAL, TSEC, CRCCR, DAT, and TAI) in relation to the dependent variable, EP.

Testing H₀₁: Employee Awareness Levels (EAL) has no significant impact on employees' performance within selected public service agencies in Delta State, Nigeria. The unstandardized coefficient for EAL was 0.142, with a standard error of 0.052. The t-value was 2.731, and the p-value was 0.015. Since the p-value was less than 0.05, the null hypothesis (H₀₁) was rejected. This indicated that EAL had a statistically significant positive impact on EP.

Testing H₀₂: Training Sessions on Ethical Conduct (TSEC) have no significant impact on employees' performance within selected public service agencies in Delta State, Nigeria. The unstandardized coefficient for TSEC was 0.150, with a standard error of 0.033. The t-value was 4.482, and the p-value was 0.001. Given that the p-value was less than 0.05, the

null hypothesis (H₀₂) was rejected. This result showed that TSEC had a statistically significant positive impact on EP.

Testing H₀₃: Compliance Rate with Code of Conduct Regulations (CRCCR) has no significant impact on employees' performance within selected public service agencies in Delta State, Nigeria.

The unstandardized coefficient for CRCCR was 0.320, with a standard error of 0.134. The t-value was 2.388, and the p-value was 0.013. Since the p-value was less than 0.05, the null hypothesis (H₀₃) was rejected. This implied that CRCCR had a significant positive impact on EP.

Testing H₀₄: Disciplinary Actions Taken (DAT) has no significant impact on employees' performance within selected public service agencies in Delta State, Nigeria. The unstandardized coefficient for DAT was 0.463, with a standard error of 0.128. The t-value was 3.604, and the p-value was 0.002. As the p-value was less than 0.05, the null hypothesis (H₀₄) was rejected. This

demonstrated that DAT had a statistically significant positive impact on EP.

Testing H₀₅: Transparency and Accountability Indices (TAI) have no significant impact on employees' performance within selected public service agencies in Delta State, Nigeria.

The unstandardized coefficient for TAI was 0.260, with a standard error of 0.055. The t-value was 4.727, and the p-value was 0.001. As the p-value was less than 0.05, the null hypothesis (H₀₅) was rejected. This result revealed that TAI had a significant positive impact on EP.

Table 4: Model Summary

Model Summary ^b						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	
1	.921 ^a	.848	.821	1.338	1.791	
a. Predictors: (Constant), EAL, TSEC, CRCCR, DAT, TAI						
b. Dependent Variable: EP						
ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1199.862	5	239.972	134.092	.000 ^b
	Residual	579.835	224	1.790		
	Total	1779.697	229			
a. Dependent Variable: EP						
b. Predictors: (Constant), EAL, TSEC, CRCCR, DAT, TAI						

Source: SPSS Output, 2025

Table 4 presented the results of the regression analysis conducted to assess the combined effect of the independent variables (EAL, TSEC, CRCCR, DAT, and TAI) on the dependent variable (EP).

The model summary indicated that the multiple correlation coefficient (**R**) was 0.921, suggesting a very strong linear relationship between the independent variables and EP. The coefficient of determination (**R Square**) was 0.848, which implied that approximately 84.8% of the variance in EP could be explained by the combined independent variables. The adjusted R Square, which accounted for the number of predictors in the model, was slightly lower at 0.821, indicating that the model remained robust even after adjusting for the degrees of freedom. The standard error of the estimate was 1.338, which reflected the average distance between the observed values and the predicted values of EP. This indicated a relatively good fit of the model to the data. The Durbin-Watson statistic was 1.791, suggesting that there was no significant autocorrelation in the residuals and that the model met the assumption of independent errors.

The ANOVA table further supported the significance of the model. The regression sum

of squares was 1199.862, while the residual sum of squares was 579.835, resulting in a total sum of squares of 1779.697. The mean square for regression was 239.972, compared to 1.790 for the residual. The F-statistic was 134.092, with a significance level (p-value) of .000, indicating that the model was statistically significant at the 1% level. This implied that the independent variables jointly had a significant effect on EP.

Overall, the results presented in Table 4 suggested that the model was highly effective in explaining the variation in EP and that the independent variables together made a significant contribution to predicting EP. These findings provided a solid foundation for further analysis and interpretation of the individual regression coefficients.

Discussion of Findings

The study found that employee awareness of laws and ethics positively influenced performance. This supports social learning theory, which suggests that employees adopt appropriate behaviors by observing and following organizational norms. When staff understand expectations, rules, and ethical standards, they are more likely to act in ways that align with organizational goals,

improving overall performance. Research by Mwakyusa and Mbise (2024) showed that raising awareness among Tanzanian public servants enhanced compliance and ethical behavior, while Onuegbu et al. (2025) highlighted that clear communication improves employee understanding and performance in Nigeria's digital banking sector. These findings show that promoting awareness is not just procedural but can transform individual and organizational outcomes.

Training and skills development were also shown to enhance performance, consistent with social learning and public service motivation theories. Studies by Dlamini and Phiri (2024) and Moyo and Sibanda (2024) demonstrated that ethical training in Botswana and South Africa improved adherence to codes of conduct and job performance. Similarly, Seliti et al. (2025) emphasized that well-structured technical and skills-based training positively affects employee performance across African public sector organizations. This underlines the importance of continuous and diverse training programs in fostering ethical behavior and improving outcomes.

Adherence to codes of conduct significantly impacted performance, reflecting agency theory's focus on formal rules to guide behavior and reduce opportunism. Tadesse and Bekele (2025) found that higher compliance in Ethiopian hospitals led to better service delivery, while Kasase and Hapompwe (2025) showed that inconsistent enforcement in Lusaka's public schools hindered organizational outcomes. Kyambade and Namatovu (2025) further stressed that ethical codes enhance integrity and performance, emphasizing that strong compliance mechanisms are crucial for effective public service.

The study also highlighted that disciplined accountability positively affects performance,

supporting stewardship theory. Research by Nansubuga and Kaggwa (2025) and Diop and Ndiaye (2023) revealed that fair and timely disciplinary actions in Uganda and Senegal improved adherence to codes of conduct and reduced unethical behavior. Kyambade and Namatovu (2025) noted that a structured disciplinary framework strengthens integrity and job satisfaction, showing that consistent corrective measures are key to sustaining ethical standards and high performance.

Transparency and accountability were found to enhance employee performance as well, aligning with institutional theory. Studies by Ali-Momoh et al. (2025) in Nigeria and Uwimana and Habimana (2023) in Rwanda demonstrated that transparent practices increase motivation and performance. Otieno and Wanjiku (2023) also showed that measures like open budgeting and public reporting improve service delivery and responsiveness in Kenyan county governments. These findings highlight the role of trust, transparency, and accountability in fostering engagement and performance.

Thus, the findings align with multiple theoretical perspectives, including social learning, agency, stewardship, institutional, and public service motivation theories. They confirm that promoting awareness, providing comprehensive training, enforcing codes of conduct, implementing fair disciplinary measures, and encouraging transparency are all critical factors in driving employee performance. These outcomes support existing literature and emphasize the importance of ethical practices, continuous capacity building, and transparent governance in improving performance within public service agencies in Delta State, Nigeria.

Conclusion and Recommendations

The study concluded that effective management of the code of conduct has a substantial positive impact on employee performance in the public service sector of

Delta State, Nigeria. Key factors such as employees' awareness of ethical standards, participation in training programs on ethical conduct, adherence to code of conduct regulations, consistent disciplinary actions, and the promotion of transparency and accountability all played significant roles in improving performance. These results highlight the critical need to cultivate a strong ethical culture and adopt comprehensive management practices to enhance efficiency and effectiveness within public service organizations. Based on these findings, the study proposed the following recommendations:

- i. Government agencies should enhance communication and awareness programs to ensure that all employees fully understand the codes of conduct and ethical expectations.
- ii. Regular and comprehensive training on ethical standards should be institutionalized to reinforce knowledge and compliance among staff.
 - a. Agencies should develop monitoring and enforcement mechanisms to ensure consistent adherence to ethical guidelines.
- iii. A transparent, fair, and consistent disciplinary process should be implemented to keep employees accountable and maintain a high standard of conduct.
- iv. Agencies should invest in systems that promote transparency and accountability to foster trust and motivate employees to perform effectively.

References

- Adebayo, K., & Abdulrazaq, K. A. (2022). Ethical Leadership and Employee Performance in the Public Sector: The Mediating Effects of Motivation and Satisfaction. *Jurnal Studi Pemerintahan*, 13(2), 142-160.
- Agbor, M. O. (2023). Work disciplinary measures and employee performance of federal universities in North Central Nigeria. *International Journal of Management Sciences*, 10(1), 96–113.
- Ahmad, C. A., Olohigbe, A. F., & Momoh, A. (2023). Assessment of the performance of Code of Conduct Bureau in Nigeria: Prospects and challenges. *Social Science and Law Journal of Policy Review*, 5(2), 123-130.
- Ajike, A. (2023). Effect of staff discipline on employee performance in the Abia State Civil Service. *Michael Okpara University of Agriculture Repository*.
- Akosa, F., Yeboah-Assiamah, E., Asare, B. E., Asamoah, K., Essah-Koli, A. P., & Ahmad, P. (2019). Operationalization of Ghana's civil service code of conduct. *Public Money & Management*, 39(6), 446–454.
- Ali-Momoh, M., Ojo, R., Musa, S., & Yakubu, F. (2025). Financial administration rules and transparency in federal Ministries, Departments, and Agencies in Ekiti State, Nigeria. *Journal of Public Sector Studies*, 19(2), 134–152.
- Aliyu, M., & Lawal, K. (2024). Strategies for strengthening accountability and transparency in Nigeria's public sector. *African Journal of Governance and Development*, 11(1), 22–38.
- Amakiri, J. F., Nein, G., & Oyinmiebi, P. T. (2025). Interpersonal relations and public service performance in Nigeria: A study of Bayelsa State Public Service. *African Journal of Law, Political Research and Administration*, 8(1), 111-124.
- Arugu, L. O., & Coastman, S. (2023). Ethical standards in the Nigerian public service: Issues and challenges. *International Policy Brief*, 10(4), 83-89.

- Ashiru, A. O., & Lawal, Y. B. (2024). Strengthening accountability and transparency in the Nigerian public sector entities: An approach for promoting good governance. *Nigerian Journal of Public Sector Management*, 7(2), 45–60.
- Bakare, L. A. (2023). The moderating effect of ethical behaviour on employee performance in selected Nigerian public institutions. *African Journal of Business Ethics*, 14(1), 75–91.
- Diop, A., & Ndiaye, M. (2023). Disciplinary actions and compliance with codes of conduct in Senegal's public administration. *Senegalese Journal of Administrative Studies*, 9(1), 66–82.
- Dlamini, N., & Phiri, K. (2024). Ethical training and employee performance in Botswana's public sector. *Botswana Journal of Public Administration*, 11(3), 89–104.
- Egbon-Charles, C. N., Tanko, D. B., Gambo, N., Ehiaguina, J. A., & Yakubu, F. (2024). Research & development and employees productivity in public service of Nigerian Fourth Republic. *Global Journal of Human Resource Management*, 12(4), 108-130.
- Elias-Fatile, O. M. (2021). Leader Strategies That Increase Employee Performance in the Nigerian Public Sector. *Walden Dissertations and Doctoral Studies*, 12337.
- Ezeajughu, M. C. (2021). Accountability and transparency in Nigerian civil service. *Sapientia Global Journal of Arts, Humanities and Development Studies*, 4(2), 200–207.
- Ezeanolue, A. G., & Chukwuemeka, E. E. O. (2024). Effect of SERVICOM on employee service delivery in Nigerian universities. *Nigerian Journal of Public Administration*, 15(3), 210–230.
- Gberevbie, D. E. (2022). Ethical issues and challenges of accountability in Nigeria's public administration. *Agathos International Review*, 24, 377-389.
- Government of Tanzania (2022). Code of ethics and conduct for the public service. Dar es Salaam: Civil Service Department.
- Ijewereme, O. B. (2023). The Influence of Performance Management on Staff Performance: A Case of Two Bureaucracies in Federal Public Service of Nigeria. *Journal of Public Policy and Administration*, 7(2), 98-108.
- Imene, A. (2023). Impact of performance evaluation system on employee performance in Nigeria local government administration: A study of Ukwuani local government administration of Delta State, Nigeria. *Journal of Social Sciences and Management Studies*, 2(2), 54-65.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360.
- Joseph, O. M., & Atairet, C. A. (2022). Budget as an instrument of accountability in democratic governance of Akwa Ibom State 2013-2022. *AKSU Journal of Administration and Corporate Governance*, 2(1), 10–21.
- Kasase, C. C., & Hapompwe, C. C. (2025). Assessing barriers to implementation of employee code of conduct: A case of Lusaka's public schools. *Journal of Economics, Finance and Management Studies*, 8(4), 2152-2164.
- Kpurunee, G. L., Amadi, K. I., & Zeb-Obipi, I. (2024). Employee Productivity in Nigeria: Challenges and Prospects. *Research Journal of Management Practice*, 4(10), 49-64.
- Kyambade, M., & Namatovu, A. (2025). Ethical leadership, code of ethics, and

- employee integrity in Uganda's public sector. *East African Journal of Leadership*, 6(2), 89–105.
- Marshall, J. B., & Murtala, A. M. (2020). Public service in Nigeria: Functions and code of conduct. *Global Journal of Politics and Law Research*, 3(1), 61-69.
- Masenyana, M. J. (2025). Curbing corruption in South Africa's public sector through ethical enforcement. *South African Public Management Review*, 22(1), 34–52.
- Moyo, T., & Sibanda, M. (2024). Ethical training and compliance in South Africa's public sector: An empirical study. *Journal of Public Administration*, 59(1), 112–130.
- Mwakyusa, D., & Mbise, A. (2024). Employee awareness and implementation of codes of conduct in Tanzania's public institutions. *Tanzania Journal of Ethics and Governance*, 10(1), 23–38.
- Nansubuga, H., & Kaggwa, J. (2025). Disciplinary actions and code of conduct enforcement in Uganda's public service. *East African Public Administration Review*, 8(2), 78–95.
- Obidike, J. C., & Onuora, J. K. J. (2025). Effect of digital transformation on public sector accountability and transparency in Nigeria. *Journal of Accounting and Financial Management*, 11(1), 40–51.
- Ogunbodede, N., & Lawal, T. (2024). Transparency and accountability in the Nigerian public sector and their effects on service delivery. *Journal of African Governance and Administration*, 12(1), 55–73.
- Omoniyi, O. S., & Akintoye, I. R. (2024). Deteriorating transparency and accountability in the Nigerian public sector: Challenges and remedies. *Journal of African Policy Studies*, 13(2), 101–119.
- Onuegbu, O. C., Agbamu, B. O., Anyakoha, B. U., & Anunike, O. W. (2025). Communication, awareness, and acceptance of digital banking during a cash crunch in Southeast and South-South Nigeria. *Journal of Digital Finance and Development*, 8(3), 110–128.
- Osisioma, H., & Audu, A. (2022). Performance management practices and employee productivity at Nigeria Brewery and Guinness Plc in South-West Nigeria. *Journal of Human Resource Management*, 10(1), 15–28.
- Otieno, J., & Wanjiku, L. (2023). Transparency initiatives and employee performance in Kenya's county governments. *African Journal of Governance and Development*, 12(3), 45–60.
- Otinche, I. (2021). Dialectical review of Nigerian public sector ethics. *International Journal of Law, Politics & Humanities Research*, 2(2), 53-60.
- Seliti, O., Dick-Sagoe, C., Ehiane, S., Odoom, D., & Mpuangna, K. N. (2025). Influence of training on employee performance in African public sector organizations: A systematic review. *African Journal of Management Research*, 17(2), 145–162.
- Tadesse, S., & Bekele, G. (2025). Compliance with code of conduct regulations and service delivery in Ethiopia's public health institutions. *Ethiopian Journal of Public Health Management*, 7(2), 55–70.
- Transparency International (2022). 2022 Corruption Perceptions Index. Retrieved from <https://www.transparency.org/en/cpi/2022>
- Transparency International (2024). Transparency, accountability, and integrity of public procurement systems. Retrieved from <https://knowledgehub.transparency.org>

[/assets/uploads/helpdesk/Transparency-accountability-and-integrity-of-public-procurement-systems_2024-English-Version.pdf](#)

- Ukeje, I. (2023). Public Sector Disciplinary Practices and Implications for Sustainable Organizational Performance: Evidence from Delta State Civil Service Commission, Asaba. *Journal of Public Administration and Policy Research*, 15(1), 96-110.
- Umar, M., & Adamu, U. (2023). The role of Code of Conduct Bureau in ensuring

probity and accountability in the Nigerian public service. *International Policy Brief*, 10(4), 215-217.

- Umar, M., & Adamu, U. (2023). The role of Code of Conduct Bureau in ensuring probity and accountability in the Nigerian public service. *International Policy Brief*, 10(4), 215-217.
- Uwimana, C., & Habimana, P. (2023). Transparency, accountability, and employee performance in Rwanda's public service. *Rwandan Journal of Public Affairs*, 5(4), 101–118.



Organizational Justice and Employee Performance: A Study of the Delta State Hospital Management Board

Ihuoma Justice OGBONNA¹ Akpomuvire MUKORO^{*2}, Onofere Princewill OKEREKA³

^{1,2,3}Department of Public Administration, Faculty of Management Science,
Delta State University, Abraka

*Corresponding Author: akpomuviremukoro@delsu.edu.ng

Publication Date: 2025/06/30

Abstract

This study examines the impact of organizational justice on employee performance within the Delta State Hospital Management Board (DSHMB), Nigeria. It explores four dimensions of organizational justice, distributive, procedural, interactional, and informational justice, and their respective effects on employee performance in the public health sector. The study was anchored on organizational justice theory and equity theory, which posits that employees are motivated to perform when they perceive fair treatment within the workplace. A cross-sectional survey design and purposive sampling technique were adopted to collect data from a diverse sample of healthcare professionals, including administrative staff, medical doctors, nurses, pharmacists, and laboratory personnel across various DSHMB hospitals. The study utilized a structured questionnaire to gather primary data from 291 respondents deemed usable. Multiple regression analysis was used to analyze the data and test the hypotheses with the aid of the Statistical Package for Social Sciences (SPSS) Version 23. The findings revealed that all four dimensions of organizational justice have a positive and significant effect on employee performance in DSHMB. This indicates that perceptions of fairness in outcomes, procedures, interpersonal treatment, and information sharing play a vital role in enhancing staff commitment, motivation, and productivity within the public healthcare system. The study concluded that fostering a just organizational climate is essential for improving employee performance in healthcare institutions. The positive influence of organizational justice suggests that hospital administrators should prioritize fairness in both policy implementation and daily management practices. It recommended, among others, that the DSHMB implement a transparent and equitable reward system to strengthen distributive justice. Ensuring fair compensation and recognition for contributions will enhance employee satisfaction and overall performance. This study contributes to the broader discourse on organizational justice by establishing its practical relevance in the Nigerian healthcare context and offers a foundation for further comparative and longitudinal research.

Introduction

In today's dynamic, globalized, and increasingly competitive work environment, organizational justice has gained significant attention as a foundational element in shaping employee behaviour, workplace harmony, and

overall organizational effectiveness. The concept of organizational justice, initially introduced by Greenberg (1987), refers to employees' perceptions of fairness in organizational procedures, interactions, and outcomes. These perceptions of fairness

influence how employees interpret their treatment at work, how they respond to organizational decisions, and how they align their efforts with organizational goals.

Globally, a growing body of empirical research has linked organizational justice to a wide range of positive individual and organizational outcomes. These include job satisfaction, trust in leadership, organizational commitment, employee engagement, and job performance (Colquitt et al., 2022). In the long run, organizations perceived as fair by their employees tend to enjoy lower turnover intentions, stronger employee loyalty, greater productivity, and enhanced innovation. Conversely, perceptions of injustice can result in absenteeism, workplace conflict, decreased morale, and resistance to change.

Organizational justice is commonly conceptualized through four distinct but interconnected dimensions. Distributive justice pertains to the perceived fairness in the allocation of resources and rewards, such as pay, promotions, and recognition. Procedural justice relates to the fairness of the processes used to arrive at decisions, emphasizing transparency, consistency, and neutrality. Interactional justice refers to the degree of respect and dignity with which individuals are treated by supervisors and colleagues, while informational justice concerns the adequacy and honesty of explanations provided about decisions and policies (Colquitt, 2001).

Studies from both developed and developing countries consistently show that organizational justice significantly influences employee behaviours beyond basic job duties. These include organizational citizenship behaviour (OCB), the discretionary actions that go beyond formal job requirements, as well as motivation, loyalty, and adaptability during organizational changes. In high-income nations like the United States, the United Kingdom, and Germany, strong procedural and Interactional justice mechanisms have been linked to higher

employee satisfaction and increased organizational innovation (Loi et al., 2009; Kim & Beehr, 2021). In contrast, research from developing nations, including China, Brazil, India, and Nigeria, suggests that justice perceptions are deeply influenced by socio-cultural norms, economic conditions, and institutional frameworks. These contextual factors can either strengthen or weaken the relationship between justice and performance (Rupp et al., 2023).

In light of these international trends, scholars have emphasized the importance of conducting culturally nuanced and context-specific research. Multinational organizations and public institutions alike are increasingly challenged to tailor justice frameworks to suit diverse employee expectations and local conditions. Therefore, gaining an in-depth understanding of how organizational justice functions within specific national or regional settings is critical for developing effective human resource management strategies. In the Nigerian context, especially within the public health sector, issues of fairness and equity in employee treatment remain highly pertinent. The Delta State Hospital Management Board (DSHMB), responsible for administering and managing secondary healthcare institutions across the state, presents a compelling case study. Over the years, the Board has faced persistent human resource challenges, including frequent industrial actions, low staff morale, complaints about inequitable promotion practices, and a significant outflow of skilled health professionals to private or foreign sectors.

These challenges point toward possible gaps in the perception and implementation of organizational justice within the Board's system. For instance, employees who perceive favoritism in promotions or inconsistencies in disciplinary actions may become demotivated or disengaged. Similarly, poor communication from management and a lack of recognition

may erode trust, diminish morale, and ultimately reduce performance.

While some studies have broadly addressed human resource challenges in Nigerian healthcare institutions, few have specifically explored how organizational justice influences employee performance within state-managed hospitals. Given the strategic importance of human capital in healthcare delivery, especially in resource-constrained environments, there is a clear need for focused research on this subject. Understanding how fairness in outcomes, processes, treatment, and communication shapes the behaviour and effectiveness of healthcare workers is vital to designing interventions that can enhance workforce stability, motivation, and service quality. Therefore, this study filled the existing empirical gap by investigating the relationship between organizational justice and employee performance in the Delta State Hospital Management Board. The specific objectives were to:

- i. Examine the influence of distributive justice on employee performance in the Delta State Hospital Management Board.
- ii. Assess how procedural justice impacts employee performance in the Delta State Hospital Management Board.
- iii. Explore the role of interactional justice on employee performance in the Delta State Hospital Management Board.
- iv. Determine the effect of informational justice on employee performance in the Delta State Hospital Management Board.

Literature Review

Organizational Justice

Justice is often equated with fairness, and in organizations, it reflects how employees judge actions and decisions as being fair or unfair. Workers naturally assess whether wages, promotions, hiring, and decision-making processes are transparent and equitable. When fairness is perceived, employees show trust,

motivation, and commitment; but when it is lacking, morale and performance suffer (Chandrawaty & Widodo, 2021).

The idea of organizational justice, introduced by Greenberg in 1987, refers to employees' perceptions of fairness in the workplace. Scholars view it as the extent to which management decisions, such as pay, promotions, rewards, policies, and task assignments, are fair and ethical (Okocha & Anyanwu, 2016; Kalay, 2016; Imran, 2016). In simple terms, it is how employees evaluate whether they are treated justly by their organization.

Organizational justice matters because it shapes employee behaviour and organizational outcomes. Fair practices foster trust, job satisfaction, and productivity, while unfair treatment often results in dissatisfaction, absenteeism, or turnover (Rowland & Hall, 2012; Zayer & Benabdelhadi, 2020). It also strengthens collaboration, reduces workplace conflict, and enhances an organization's reputation (Al Aina & Atan, 2020). Overall, organizational justice, whether in pay, promotion, performance appraisal, or conflict resolution, is a cornerstone of healthy work environments. Organizations that uphold fairness retain talent, achieve higher productivity, and build long-term success (Timan et al., 2024).

Employee Performance

Performance refers to how well employees accomplish the tasks assigned to them. Mangkunegara (2018) defines it as the quality and quantity of work achieved by employees in fulfilling their responsibilities. It can be evaluated based on an employee's ability to complete tasks and meet set standards. Employees who meet or exceed these standards are considered to have good performance, while those who fall short are seen as underperforming (Okolie & Kawedo, 2018).

Orhero and Okolie (2020) note that performance reflects an organization's capacity to reach its goals through the positive contributions of its members. Similarly, Faruk (2016) emphasizes that organizational success largely depends on employee performance both individually and collectively. The better the employees perform, the stronger the organization's overall performance. According to Nurak and Riana (2017), employee performance can also be assessed by their contributions toward organizational objectives within a given period, as well as their creativity and efficiency in carrying out tasks. Employees who fail to meet expectations may not receive rewards or could face disciplinary actions.

Organizational Justice and Employee Performance

Organizational justice is essential for effective performance evaluation and influences outcomes like job satisfaction, commitment, conflict, and turnover (Manal et al., 2021). Research shows that fair treatment in the workplace improves performance through increased job satisfaction, trust, and employee engagement. Procedural justice is particularly important for determining employee performance, though distributive and interactional justice also positively affect both self-rated and supervisor-rated performance (Faruk, 2016).

Ensuring organizational justice aligns with management practices helps reduce absenteeism, low morale, and turnover while boosting commitment and satisfaction (Syarifah, 2016). It also encourages extra-role behaviours, proactive attitudes, and cooperation, as employees who feel fairly treated demonstrate higher trust and organizational citizenship (Hyder et al., 2022). Therefore, integrating organizational justice into workplace practices is crucial for maximizing employee performance.

Distributive Justice and Employee Performance

Distributive justice focuses on employees' perceptions of fairness in how resources, rewards, and outcomes are allocated. Based on equity theory, employees compare their effort-to-reward ratio with that of colleagues. When they perceive fairness, motivation and productivity increase; when they perceive imbalance, dissatisfaction and disengagement arise. Empirical studies support this link. Garba et al. (2022) found that fair reward distribution positively influenced employee performance in Nigeria's Federal Capital Territory. Similarly, Ebiem and Ikediugwu (2023) reported that school principals in Anambra State who treated teachers fairly and explained decisions achieved higher teacher performance. In the banking sector, Agbim et al. (2023) observed that equitable reward distribution improved both task and contextual performance. In healthcare, Alshammari and Ali (2024) showed that fair workloads and recognition boosted nurses' performance, which enhanced patient satisfaction.

Distributive justice also strengthens job involvement, satisfaction, and organizational commitment, indirectly improving performance (Rivai et al., 2019). Theoretically, equity theory suggests that perceived unfairness motivates employees to adjust behavior to restore balance, while social exchange theory emphasizes reciprocity, fair treatment encourages employees to go beyond their duties, engage in organizational citizenship behaviours, and reduce turnover intentions (Adams, 1963).

Procedural Justice and Employee Performance

Procedural justice ensures that organizational decisions are made through clear, consistent, and transparent processes, building trust, engagement, and improving performance. Employees who perceive fairness show higher

commitment and proactive behavior, while unfair procedures lead to disengagement and counterproductive actions (Adams, 1963; Cropanzano & Mitchell, 2005).

Studies show procedural justice enhances task performance, organizational citizenship behaviors, and engagement by fostering trust and a sense of belonging (Li et al., 2022; Kim & Lee, 2022). It also reduces turnover intentions and social loafing by creating meaningful work and favorable job conditions (O'Callaghan, 2024).

In industrial settings, transparent job analyses and clearly defined roles increase perceived fairness, boosting employee trust, security, and effectiveness (Khatbeh et al., 2020). Organizations can strengthen procedural justice by involving employees in decisions, maintaining consistent policies, providing appeal mechanisms, training managers, and regularly assessing fairness perceptions, which collectively enhance performance.

Interactional Justice and Employee Performance

Interactional justice focuses on respectful, transparent, and fair treatment that builds trust and emotional safety. In high-pressure sectors like healthcare, education, and services, it significantly affects employee well-being, team cohesion, and overall performance. Studies show that fair and considerate treatment reduces feelings of broken trust, strengthens emotional resilience, and enhances engagement (Mohamed et al., 2018; Cheng et al., 2022; Dong & Zhong, 2022).

In industries such as technology and manufacturing, interactional justice improves job satisfaction, commitment, and retention while reducing conflict and counterproductive behaviors. For example, in Jordan and Ethiopia, fair communication and treatment were linked to higher performance, stronger team trust, and lower turnover intentions (Uraon & Kumarasamy, 2024; Kebede & Wang, 2022). Overall, prioritizing respectful

and transparent interactions fosters a supportive work environment where employees feel valued, empowered, and motivated to perform at their best.

Informational Justice and Employee Performance

Informational justice refers to employees' perceptions of transparency, honesty, clarity, and timeliness in organizational communication, particularly regarding decisions and policies. Unlike distributive or procedural justice, it emphasizes the quality of information shared and the reasoning behind decisions. When leaders communicate openly and clearly, employees gain trust, role clarity, and motivation, which enhances performance.

Research shows informational justice reduces counterproductive behaviors like knowledge hiding, lowers anxiety during uncertain times, and strengthens engagement, job satisfaction, and retention (Xu et al., 2023; van den Bos & Lind, 2021; Uraon & Kumarasamy, 2024). Fostering understanding and trust encourages discretionary effort, collaboration, and overall organizational effectiveness (Zahran & Eldossoqi, 2021).

Empirical Review

Several studies have explored the impact of organizational justice on employee performance across different countries and sectors. Faruk (2016) examined 942 public school teachers in Turkey and found that distributive justice positively influenced task performance, while procedural and interactional justice had no significant effect. Similarly, Kalay (2016) reported that distributive justice significantly enhanced employees' performance, though the study did not identify key determinants of justice.

In Indonesia, Nurak and Riana (2017) studied 104 government employees and found that organizational justice significantly improved job satisfaction and performance, with job

satisfaction further boosting performance. They emphasized the importance of interactional and informational justice in enhancing employee satisfaction. Arab and Atan (2018) studied 402 employee-manager pairs in Iraq's higher education institutions, finding that all justice dimensions contributed to job satisfaction and performance, with interactional justice having the strongest effect and interacting with distributive justice to improve performance.

In Nigeria, Orishede and Bello (2019) examined 202 bank employees and found that distributive, procedural, and interactional justice positively influenced performance. They recommended transparent decision-making, fair workload distribution, and respectful communication to sustain employee effectiveness. Similarly, Oluyemisi et al. (2024) and Kolawole et al. (2025) reported that all three dimensions of organizational justice positively affect performance and job satisfaction in Nigeria's private and banking sectors. Their studies highlight the need for fair rewards, transparent policies, and respectful interactions to enhance employee morale, commitment, and organizational success.

Theoretical Framework

This study is based on Organizational Justice Theory, developed by Jerald Greenberg in the 1980s. The theory highlights that employees' perceptions of fairness, whether in outcomes (distributive justice), decision-making processes (procedural justice), or interpersonal treatment (interactional justice), strongly influence their attitudes and behavior at work (Greenberg, 1987; Przęczek et al., 2020). Distributive justice relates to fair outcomes like pay and promotions, procedural justice concerns the fairness of the processes used to make decisions, and interactional justice focuses on respectful treatment and communication from leaders (Zayer & Benabdelhadi, 2020).

Research shows that when employees perceive fairness across these dimensions, they are more satisfied, loyal, productive, and engaged. Justice also encourages positive behaviors such as organizational citizenship and reduces counterproductive behaviors like withdrawal or workplace deviance (Colquitt et al., 2001; Folger & Konovsky, 1989). Procedural fairness, for example, enhances compliance and trust, while respectful interactions foster cooperation and discretionary effort.

However, critics note that fairness is subjective, influenced by personal values, cultural context, and emotional factors, which the theory does not fully capture. It also often relies on laboratory studies, raising concerns about how well it reflects real-world workplace complexity (Mitchell et al., 2021; Aisha et al., 2024; Briganti et al., 2023; Colquitt et al., 2005). Despite these limitations, embedding justice in policies, culture, and leadership remains both ethically important and strategically beneficial.

Colquitt (2001) notes that while Organizational Justice Theory divides fairness into distributive, procedural, interactional, and informational dimensions, these often overlap in practice. For example, unfair procedures may also be seen as disrespectful treatment, making it harder to measure justice clearly. Roberson and Stevens (2006) add that the theory focuses on individual perceptions within daily interactions, sometimes overlooking broader systemic or cultural inequities. Ambrose and Schminke (2009) highlight that theory often treats fairness as static, missing how perceptions develop over time through ongoing experiences and trust.

Despite these limitations, the theory is valuable for understanding how perceived fairness affects employee motivation, behavior, and performance. Distributive justice relates to fair outcomes like pay or promotions; procedural justice focuses on fair decision-making processes; interactional

justice emphasizes respectful treatment; and informational justice concerns clear, transparent communication.

Fair workload distribution, transparent procedures, and respectful interactions can enhance trust, commitment, and productivity. When employees perceive fairness, they demonstrate positive behaviors such as organizational citizenship, loyalty, and job satisfaction. Conversely, perceived injustice can lead to absenteeism, low morale, and turnover, critical issues in overstretched healthcare settings. Ultimately, the application of this theory can support the development of a more motivated, committed, and high-performing healthcare workforce in the Delta State Hospital Management Board. Based on the literature review, the following hypotheses were formulated to guide this study:

- i. H₀₁: Distributive justice has no significant positive effect on employee performance in the Delta State Hospital Management Board.
- ii. H₀₂: Procedural justice has no significant positive effect on employee performance in the Delta State Hospital Management Board.
- iii. H₀₃: Interactional justice has no significant positive impact on employee performance in the Delta State Hospital Management Board.
- iv. H₀₄: Informational justice has no significant positive effect on employee performance in the Delta State Hospital Management Board.

Research Methodology

This study employed a cross-sectional research design, which involves collecting data from a diverse group of respondents at a single point in time (Check & Schutt, 2012; McNabb, 2012; Devare, 2015). This approach is suitable because it allows simultaneous measurement of both the independent variable (organizational justice) and the dependent variable (employee performance) without

manipulating or controlling them (Obasi, 2000). It enables quantitative data collection from a wide population, allowing comparisons across different hospitals and employee categories while identifying patterns in perceptions of justice without long-term observation.

The study population comprised staff of the Delta State Hospital Management Board (DSHMB), including medical doctors, nurses and midwives, pharmacists and laboratory scientists, administrative officers, and support staff. According to 2024 data from the DSHMB Human Resource Department, the total workforce is approximately 3,500 employees. This includes 200 administrative staff at the Asaba headquarters, 450 doctors, 1,700 nurses and midwives, 350 pharmacists and lab scientists, 430 health records officers and technicians, 250 allied health professionals, and 120 support staff. These employees work across general, specialist, and cottage hospitals in all 25 Local Government Areas of Delta State. The sample size for the study was determined using Yamane's (1967) formula.

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

Where:

- i. n = sample size
- ii. N = population size (3,500)
- iii. e = level of precision (0.05)
 $n = \frac{3500}{1 + 3500(0.05)^2}$
 $n = \frac{3500}{1 + 8.75} = 359$

Thus, a sample of 359 respondents was selected for the study.

The study used primary data collected through a structured, closed-ended questionnaire, a widely used tool in quantitative research for generating measurable data suitable for statistical analysis (De-Leeuw, 2008). The questionnaire had three sections: Section A collected demographic information, Section B focused on organizational justice, and Section C covered employee performance. Responses were measured on a five-point Likert scale ranging from Strongly Disagree to Strongly

Agree, ensuring consistency and relevance. Items on organizational justice: distributive, procedural, interactional, and informational were adapted from Niehoff and Moorman (1993) and Colquitt (2001), while employee performance items were adapted from Goodman and Svyantek (1999) and Williams and Anderson (1991). These items were adjusted to fit the healthcare context of the Delta State Hospital Management Board (DSHMB), ensuring content validity.

Data analysis was performed using SPSS version 23, employing inferential statistics. Multiple regression analysis was used to examine how the dimensions of organizational justice predicted employee performance and to explore their relationships.

Results and Discussion

The study examined the relationship between organizational justice and employee performance at the Delta State Hospital Management Board. Out of 359 questionnaires distributed, 291 were returned, yielding an 80.9% response rate, which indicates strong participant engagement and supports the reliability of the data. Multiple regression analysis was performed at a 5% significance level to assess the impact of organizational justice on employee performance and to test the study's hypotheses. A summary of the regression results is presented in Table 1.

Table 1: Multiple Regression of the Influence of Organizational Justice on Employee Performance

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.729 ^a	.566	.547	.531		
ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	75.564	1	73.505	135.509	.000 ^b
	Residual	250.259	290	.426		
	Total	325.823	291			
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	- 2.570	.124		-5.247	.001
	Distributive justice	.288	.057	.275	4.523	.000
	Procedural justice	.280	.050	.264	3.940	.000
	Interactional justice	.346	.043	.313	9.207	.000
	Informational justice	.269	.047	.241	4.255	.000

a. Dependent Variable: Employee performance

Source: SPSS Output, 2025

Table 1 presents the results of a multiple linear regression analysis used to examine how the dimensions of organizational justice (distributive, procedural, interactional, and informational justice) influence employee performance in the Delta State Hospital Management Board. The analysis revealed that all four dimensions have a positive and statistically significant effect on employee performance at the 5% significance level: Distributive justice ($B = 0.288, p = .000$) significantly contributes to performance, suggesting that fair distribution of rewards and outcomes motivates employees. Procedural justice ($B = 0.280, p = .000$) also has a meaningful influence, indicating that transparent and consistent decision-making processes enhance employee commitment and

output. Interactional justice ($B = 0.346, p = .000$) emerged as the strongest predictor, highlighting that respectful and dignified interpersonal treatment greatly boosts employee performance. Informational justice ($B = 0.269, p = .000$) shows that clear, timely, and honest communication plays a vital role in promoting effectiveness at work.

Interactional justice has the highest standardized beta (0.313), indicating it is the strongest predictor of employee performance among the four dimensions. Distributive, procedural, and informational justice also show substantial and statistically significant contributions.

Overall, the model explains approximately 56.6% of the variance in employee performance ($R^2 = 0.566$), confirming that

perceptions of fairness across multiple organizational processes significantly impact how well employees perform their duties. The regression analysis reveals that organizational justice significantly and positively influences employee performance in the Delta State Hospital Management Board. The model explains over half of the variability in performance, with interactional justice (respectful and dignified interpersonal treatment) exerting the strongest influence. This highlights the importance of fairness in both decision-making processes and employee interactions in enhancing workplace outcomes.

Discussion of Findings

The study examined the relationship between organizational justice and employee performance in the Delta State Hospital Management Board (DSHMB), focusing on distributive justice in its first hypothesis. The findings revealed that fair allocation of resources, rewards, and workloads positively and significantly influences employee performance. Employees who perceive equitable treatment are more motivated, engaged, and likely to align their efforts with organizational goals.

This supports prior research by Colquitt et al. (2001) and Abdullah & Al-Abrow (2023), highlighting that fair distribution of salaries, promotions, and recognition boosts trust, commitment, and overall productivity. The results also align with Adams' (1965) equity theory, which explains that employees compare their contributions and rewards with those of peers; perceived fairness increases satisfaction and motivation, while perceived inequity can reduce performance.

In healthcare contexts like DSHMB, where staff face demanding conditions and limited resources, fair rewards and workload distribution enhance morale, reduce turnover, and encourage voluntary, cooperative behaviors such as teamwork, punctuality, and initiative (Hassan, 2013; Adil et al., 2017;

Agbim et al., 2021). Ensuring distributive justice in allocating remuneration, equipment, career opportunities, and duties is therefore essential for staff well-being and high-quality service delivery across the state's hospitals. Thus, the study confirms that distributive justice is a key driver of employee performance in public health institutions. By promoting fairness in outcomes, management can strengthen staff motivation, loyalty, and performance, ultimately enhancing institutional efficiency and service quality.

The study's second hypothesis examined procedural justice and found that it has a positive and significant impact on employee performance at the Delta State Hospital Management Board (DSHMB). Employees who perceive organizational processes, such as promotions, duty scheduling, grievance handling, and resource allocations fair and consistent are more motivated, committed, and productive. This highlights the importance of transparent and participatory management practices in public healthcare.

This aligns with Ali (2016) and Azubuike & Madubochi (2021), who identified six criteria for procedural fairness: consistency, bias suppression, accuracy, correctability, representativeness, and ethicality. Applying these principles assures employees that decisions are based on objective standards, fostering trust in leadership and willingness to engage meaningfully in their work. Similarly, Colquitt (2001) emphasized that procedural justice builds trust, job satisfaction, and constructive employee behavior. Even when outcomes are not personally favorable, fair processes encourage employees to support organizational decisions. Blader and Tyler (2003) also showed that fair procedures strengthen employees' sense of inclusion and social belonging, motivating cooperation and alignment with organizational goals critical in healthcare settings that rely on teamwork.

Moreover, Çalik and Adams (2023) noted that procedural justice promotes organizational

citizenship behaviors (OCBs), such as helping colleagues, taking initiative, and going beyond formal duties, behaviors essential in healthcare for patient care and service efficiency. In the operational context of DSHMB, where public hospitals face high workloads, limited resources, and bureaucratic challenges, fair and inclusive procedures boost morale, trust, and employee commitment. Staff are more likely to perform effectively when they see policies applied consistently and have a voice in decisions affecting their work. Overall, the study confirms that procedural justice is a key driver of employee performance in public healthcare. Implementing transparent, standardized, and participatory processes enhances staff engagement, service quality, and organizational effectiveness, making it a vital strategy for hospital management. The study's third hypothesis examined interactional justice and found that it has a positive and significant effect on employee performance at the Delta State Hospital Management Board (DSHMB). When employees are treated with respect, dignity, and empathy by supervisors, and when communication is clear, honest, and timely, their motivation, engagement, and task performance improve. This highlights the importance of interpersonal treatment and transparent communication in shaping work behaviors. This aligns with Bies and Moag (1986) and Dike et al. (2021), who define interactional justice as comprising interpersonal justice (respectful, considerate treatment) and informational justice (adequate and truthful explanations). In high-pressure environments like DSHMB, such treatment fosters trust, commitment, and psychological safety, which directly enhances performance. Similarly, Colquitt (2001) emphasized that respectful and sincere managerial interactions reduce feelings of marginalization and encourage employees to invest fully in their roles. Studies by Faruk (2016) and Fiaz et al.

(2020) also show that how decisions are communicated affects employee reactions; poor communication can lead to withdrawal, resistance, or reduced performance, even if the outcome is fair.

Cropanzano et al. (2002) found that interactional justice promotes organizational citizenship behaviors (OCBs), including helping colleagues, showing initiative, and voluntary contributions, which are crucial in healthcare where teamwork and patient care are essential. At DSHMB, fair and respectful treatment by supervisors creates a supportive work environment, improves morale, reduces conflict, and encourages proactive engagement. Conversely, disrespect or poor communication erodes trust and hampers performance. Overall, the study confirms that interactional justice is a key driver of employee performance at DSHMB. By fostering respectful, transparent, and empathetic communication and training managers in emotional intelligence and conflict sensitivity, the organization can enhance staff motivation, teamwork, and overall healthcare delivery.

The study's fourth hypothesis examined informational justice and found that it has a positive and significant effect on employee performance at the Delta State Hospital Management Board (DSHMB). This indicates that when employees receive timely, clear, and adequate explanations about workplace decisions, policy changes, or administrative actions, their motivation, engagement, and overall job performance improve. This aligns with Manal et al. (2021), who highlighted informational justice as a key aspect of interactional justice, emphasizing fair and transparent communication. In healthcare, where decisions affect both staff and patient outcomes, providing accurate information helps employees understand decisions, reduces uncertainty, and encourages proactive contributions.

Research by Oluyemisi et al. (2024) shows that fairness, completeness, and transparency of communication strongly influence employee trust, satisfaction, and task performance. Even when outcomes are unfavorable, employees are more likely to respond positively if they perceive the communication as fair. Similarly, Percunda et al. (2020) found that adequate explanations help employees accept difficult decisions and maintain cooperative behavior.

In the DSHMB context, clear and inclusive communication fosters a sense of belonging, inclusion, and loyalty, which is crucial in healthcare teams where coordination and collaboration directly impact patient care. Conversely, unclear or delayed communication can lead to confusion, mistrust, and reduced performance. Overall, the study confirms that informational justice is a vital driver of employee performance in public healthcare institutions. By implementing structured and transparent communication practices, such as regular briefings, accessible policy updates, and feedback mechanisms, management can enhance clarity, trust, and accountability, thereby boosting staff motivation, engagement, and performance.

Conclusion and Recommendations

This study examined how organizational justice influences employee performance at the Delta State Hospital Management Board (DSHMB), focusing on four key dimensions: distributive, procedural, interactional, and informational justice. The findings show that all four dimensions significantly enhance employee performance, highlighting the crucial role of perceived fairness in shaping motivation, engagement, and commitment. Distributive justice, fairness in the allocation of rewards, salaries, promotions, recognition, and workloads was found to strongly influence performance. Employees who feel appropriately rewarded for their contributions

are more motivated, satisfied, and committed to organizational goals.

Procedural justice, or the fairness of decision-making processes, also positively affects performance. Transparent, consistent, and unbiased procedures in promotions, appraisals, and disciplinary actions build trust in management and encourage organizational citizenship behaviors, which are essential in a healthcare setting. Interactional justice, which reflects respectful, dignified, and empathetic treatment from supervisors and colleagues, was shown to boost morale, reduce conflicts, and improve workplace relationships, directly supporting better performance.

Informational justice, or providing clear, timely, and accurate information about decisions and policies, emerged as another key driver. When employees understand the rationale behind organizational actions, they are more engaged, less uncertain, and more willing to contribute effectively. In conclusion, fostering organizational justice is both ethically important and strategically beneficial for improving performance in public healthcare. The study recommended that the DSHMB should:

- i. Implement transparent and fair reward systems that align compensation, promotions, and recognition with employee contributions, ensuring clear communication of criteria.
- ii. Adopt standardized and participatory decision-making processes that involve employee input and feedback, promoting fairness and accountability.
- iii. Train managers in respectful leadership and effective communication to strengthen interpersonal relations, reduce conflicts, and enhance motivation and productivity.

By prioritizing fairness in policies, procedures, and daily interactions, the DSHMB can enhance employee

morale, reduce turnover, and deliver higher-quality healthcare services.

References

- Abdullah, H. O., & Al-Abrow, H. (2023). Impact of perceived organizational justice, support and identity on workplace behaviour through job attitudes: verification in the role of LOC. *International Journal of Organizational Analysis*, 31(6), 2645-2664
- Adams, J. S. (1963). Toward an understanding of inequity. *Journal of Abnormal and Social Psychology*, 67, 422-436.
- Adams, J. S. (1965). Inequity in social exchange. *Advances in Experimental Social Psychology*, 2, 267-299.
- Agbim, K. C., Otishi, E. S., & Jimoh, B. A. (2021). Distributive Justice and Employee Performance: An Assessment of their Relatedness in Deposit Money Banks in South-South Nigeria. *J Eco Res & Rev.*, 1 (1), 5 - 7.
- Agbim, K. C., Otishi, E. S., & Jimoh, B. A. (2023). Distributive justice and employee performance in deposit money banks in South-South Nigeria. *Journal of Economic Research & Reviews*, 3, 22 - 41. <https://doi.org/10.33140/JERR>
- Aisha, R., Channa, N. A., Mirani, M. A., & Qureshi, N. A. (2024). Investigating the influence of perceived organizational justice on counterproductive work behaviours: mediating role of negative emotions. *International Journal of Emerging Markets*, 19(8), 2264-2292.
- Ali, S. H. B (2016) The impact of organizational justice on employee intrinsic and extrinsic performance: A case study in Kota Kin Abalu Polytechnic, Malaysia. *Kuwai Chapter of Arabian Journal of Business Management Review*, 5(11), 1 -12.
- Alshammari, W. M., & Ali, D. A. (2024). Impact of work distributive justice on patient satisfaction: Mediating roles of nurses' work performance. *Lincoln University College*, 14(4), 26-34.
- Ambrose, M. L., & Schminke, M. (2009). The role of overall justice judgments in organizational justice research: A test of mediation. *Journal of Applied Psychology*, 94(2), 491-500. <https://doi.org/10.1037/a0013203>
- Arab, H. R., & Atan, T. (2018). Organizational justice and work outcomes in the Kurdistan Region of Iraq. *Management Decision*, 56(4), 808-827. doi:10.1108/md-04-2017-0405
- Azubuike, E.S. & Madubochi, W. (2021). Procedural justice and employees' commitment in selected hospitals in Rivers State. *African Journal of Social Sciences and Humanities Research*, 4(2), 49-58. ISSN: 2689-5129
- Bies, R. J., & Moag, J. S. (1986). Interactional justice: Communication criteria of fairness. *Research on Negotiation in Organizations*, Vol. 1, 43-55.
- Blader, S. L., & Tyler, T. R. (2003). A four-component model of procedural justice: Defining the meaning of a "fair" process. *Personality and Social Psychology Bulletin*, 29(6), 747-758.
- Briganti, P., de Gennaro, D., Buonocore, F., & Varriale, L. (2023). Job (dis-) satisfaction in payfor-performance health care contexts: a meta-synthesis of qualitative literature. *International Journal of Public Sector Management*, 36(6/7), 606-631.

- Çalik, E. B., & Adams, A. (2023). The Impact of Organizational Justice on Organizational Outcomes in Participation Banks. *Rihan Journal for Science Publishing*, 3(5), 17 - 28.
- Chandrawaty, C., & Widodo, W. (2021). Investigating OCB's mediating effect of school organizational justice on teachers' performance: Evidence from Indonesia. *East African Scholars Journal of Education, Humanities and Literature*, 4(4), 167–172. <https://doi.org/10.36349/easjehl.2021.v04i04.003>
- Check, J., & Schutt, R.K., (2012). "Survey research" in J. Check and RK Schutt (eds), *Research methods in education*, Sage Publications, Thousand Oaks, CA. pp.159-185. Retrieved 18-02-2022.
- Cheng, J., Usman, M., Bai, H., & He, Y. (2022). Can authentic leaders reduce the spread of negative workplace gossip? The roles of subordinates' perceived procedural justice and interactional justice. *Journal of Management & Organization*, 28(1), 9–32. <https://doi.org/10.1017/jmo.2021.32>
- Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology*, 86(3), 386–400. <https://doi.org/10.1037/0021-9010.86.3.386>
- Colquitt, J. A., Baer, M. D., Long, D. M., & Halvorsen-Ganepola, M. D. (2022). Scale adaptation and validation: A roadmap for building better measures of organizational justice. *Journal of Applied Psychology*, 107(4), 649–672. <https://doi.org/10.1037/apl0000911>
- Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O., & Ng, K. Y. (2001). *Justice at the millennium: A meta-analytic review of 25 years of organizational justice research*. *Journal of Applied Psychology*, 86(3), 425–445. <https://doi.org/10.1037/0021-9010.86.3.425>
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874–900. <https://doi.org/10.1177/0149206305279602>
- Cropanzano, R., Prehar, C. A., & Chen, P. Y. (2002). Using social exchange theory to distinguish procedural from interactional justice. *Group & Organization Management*, 27(3), 324–351.
- De-Leeuw, E. D. (2008). Self-administered questionnaires and standardized interviews. *Handbook of Survey Research*, 2, 313-328.
- Devare, S. (2015). *Case Study: Research Method for Social Sciences*. Retrieved 21-04-2023, from <https://ssrn.com/abstract=2684644>.
- Dike, G. N., Anetoh, J. C., Obiezekwem, C. J., & Eboh, S. O. (2021). Organisational Justice and Employee Performance of Government Owned Polytechnics in Anambra State of Nigeria. *Journal of Business and African Economy*, 7(1), 28 – 41.
- Dong, X., & Zhong, Y. (2022). Leadership and interactional justice: A systematic review and meta-analysis. *Management Review Quarterly*. <https://doi.org/10.1007/s11301-023-00384-y>

- Ebiem, P. O., & Ikediugwu, P. N. (2023). Relationship between principals' distributive justice and teachers' job performance in public secondary schools in Anambra State. *GPH-International Journal of Educational Research*, 6(07), 16–22. <https://doi.org/10.5281/zenodo.8197016>
- Faruk, K. (2016). The impact of organizational justice on employee performance: a survey in Turkey and Turkish context. *International Journal of Human Resource Studies*, 6(1), 1-11.
- Fiaz, M., Rasool, W., Ikram, A., & Rehman, N. (2020). Organizational justice and employees' performance: A study of an emerging economy. *Human Systems Management*, (Preprint), 1-12.
- Folger, R., & Konovsky, M. A. (1989). Effects of procedural and distributive justice reactions to pay raise decisions. *Academy of Management Journal*, 32(1), 115–130.
- Garba, S., Yahaya, G., Odekina Innocent, I., & Tomi Saliu, H. (2022). Effect of self-efficacy and distributive justice on employees' performance in Federal Capital Territory Area Councils, Abuja. *International Journal of Small and Medium Enterprises*, 3(1), Article 544. <https://doi.org/10.46281/ijsmes.v3i1.544> cribfb.com
- Goodman, S. A., & Svyantek, D. J. (1999). Person–organization fit and contextual performance: Do shared values matter. *Journal of Vocational Behaviour*, 55(2), 254–275. <https://doi.org/10.1006/jvbe.1998.1682>
- Greenberg, J. (1987). A taxonomy of organizational justice theories. *Academy of Management Review*, 12(1), 9–22. <https://doi.org/10.5465/amr.1987.4306437>
- Hassan, S. (2013). The importance of distributive and procedural justice in public service organizations: Results from the U.S. federal context. *Journal of Public Administration Research and Theory*, 23(3), 533–557.
- Hyder, S., Malik, M. I., Hussain, S., Tasneem, M., Kaleem, M., & Saqib, A. (2022). Organizational justice and employee in role performance nexus: a dual theory perspective. *Cogent Business & Management*, 9(1), 21 -26.
- Imran, R. (2016). The Impact of Organizational Justice on Employee Retention: Evidence from Oman. *International Review of Management and Marketing*, 6(2), 246–249.
- Kalay, F (2016) The impact of organizational justice on employee performance: A survey in Turkey and Turkish context. *International Journal of Human Resource Studies*, 6(1), 1 - 21.
- Kebede, S., & Wang, A. (2022). Organizational justice and employee readiness for change: The mediating role of perceived organizational support (ERCA, Ethiopia). *Frontiers in Psychology*, 13, 806109. <https://doi.org/10.3389/fpsyg.2022.806109>
- Khatbeh, M. M., Mahomed, A. S. B., Rahman, S. B. A., & Mohamed, R. (2020). The mediating role of procedural justice on the relationship between job analysis and employee performance in Jordan Industrial Estates. *Heliyon*, 6(10), 49-73. <https://doi.org/10.1016/j.heliyon.2020.e04973>
- Kim, H., & Lee, J. (2022). Realization of a sustainable high-performance organization through procedural justice: The dual mediating role of

- organizational trust and organizational commitment. *Sustainability*, 14(3), 12-20.
<https://doi.org/10.3390/su14031259>
- Kim, M., & Beehr, T. A. (2021). The power of fairness: Effects of managerial justice on employees' commitment and performance. *Journal of Business and Psychology*, 36, 693–707. <https://doi.org/10.1007/s10869-020-09707-1>
- Kolawole, O. A., Adubasim, E. I., & Ufomba, E. R. (2025). The nexus between organizational justice and employees job satisfaction in deposit money banks in Nigeria. *Interannual Academic Journal of Business Systems and Economics*, 9(1), 14 – 28.
- Li, X., Zhang, M., & Chen, S. (2022). A cognitive evaluation and equity-based perspective of pay for performance on job performance: A meta-analysis and path model. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2022.1039375>
- Loi, R., Yang, J., & Diefendorff, J. M. (2009). Four-factor justice and daily job satisfaction: A multilevel investigation. *Journal of Applied Psychology*, 94(3), 770–781. <https://doi.org/10.1037/a0015714>
- Manal H. Alabdali and Hussein M. Borie. (2021). Impact of organizational justice on the performance of health care workers. *International Journal of Current Research*, 13, (12), 19880-19884.
- Mangkunegara, A. A. P. (2018). *Manajemen sumber daya manusia perusahaan*. Bandung: PT. Remaja Rosda Karya.
- McNabb, D. E. (2012). *Research Methods in Public Administration and Nonprofit Management: Qualitative and Quantitative Approaches (3rd ed.)*: New Delhi: PHI Learning Private Limited.
- Mitchell, S., Potash, E., Barocas, S., D'Amour, A., & Lum, K. (2021). Algorithmic fairness: Choices, assumptions, and definitions. *Annual review of statistics and its application*, 8(1), 141-163.
- Mohamed, H., Higazee, M. Z. A., & Goda, S. (2018). Organizational justice and workplace bullying: The experience of nurses. *American Journal of Nursing*, 6(4), 208-213.
- Niehoff, B. P., & Moorman, R. H. (1993). Justice as a mediator of the relationship between methods of monitoring and organizational citizenship behaviour. *Academy of Management Journal*, 36(3), 527–556. <https://doi.org/10.2307/256591>
- Nurak, L. A. D., & Riana, I. G. (2017). Effect of Organizational Justice on Job Satisfaction and Employee Performance. *Journal of Management and Marketing Review*, 2(3), 30–37. https://doi.org/10.1007/978-3-319-71225-3_1
- O'Callaghan, M. (2024). The impact of procedural justice on employee turnover intentions and the role of two mediators. *Organization Management Journal*, 21(2), 75–87. <https://doi.org/10.1108/OMJ-03-2023-1822>
- Obasi. I. N. (2000). *Research methodology in Political Science*. Enugu: Academic Publishing Company.
- Okocha, B. F., & Anyanwu, S. A. (2016). Organizational justice and employee satisfaction: A study of selected banks in Port Harcourt. *International Journal of Advanced Academic Research: Social & Management Sciences*, 2(9), 1–15.

- Okolie, U. C., & Kawedo, O. P. (2018). Factors influencing employees' performance at workplace. An integrated perspective. *Journal of Economics & Business Research*, 24(1), 7 - 36
- Oluyemisi, O., Ade, B. S., & Can, N. (2024). The Influence of Organizational Justice on Employee Performance in the Organized Private Sector of the Nigeria Economy. *Journal of Entrepreneurship and Development Economics*, 1(1), 5-24.
- Orhero A. E., & Okolie U. C. (2020). Performance Appraisal and its Effect on Employee's Job Performance in Edo State Internal Revenue Service, Benin City, Nigeria. *International Journal of New Economics and Social Sciences*, 11(1), 93 - 116 DOI 10.5604/01.3001.0014.3535
- Orishede, F., & Bello, A. (2019). Relationship between organizational justice and employees performance. *Nigerian Journal of Management Sciences*, 7(1), 386-393.
- Percunda, A. D., Tamasani, N., & Chaldyando, D. (2020). Organizational justice and performance appraisal satisfaction: A study in Suburban Hospital in Indonesia. *Asian Journal of Bio Science*, 14(2), 2887-2891.
- Przęczek, C., Rosiński, J., & Manko, B. A. (2020). Research review in organizational justice. *Journal for Perspectives of Economic, Political and Social Integration*, 26(1-2), 34 – 57.
- Rivai, H. A., Reza, D. Y., & Lukito, H. (2019). Distributive justice, job satisfaction and organizational commitment as antecedents of employee performance: A study in Indonesia National Health Insurance workers. *Proceedings of the 2019 International Conference on Organizational Innovation*, 20, 670–676. <https://doi.org/10.2991/icoi-19.2019.117>
- Roberson, Q. M., & Stevens, C. K. (2006). *Making sense of diversity in the workplace: Organizational justice and language abstraction in employees' accounts of diversity-related incidents.* *Journal of Applied Psychology*, 91(2), 379–391. <https://doi.org/10.1037/0021-9010.91.2.379>
- Rowland, C., & Hall, R. (2012). Organizational justice and performance: is appraisal fair?. *Euromed Journal of Business*, 7, 280-293. <https://doi.org/10.1108/14502191211265334>.
- Rupp, D. E., Paddock, E. L., Baldwin, A. M., & Scherer, L. L. (2023). The many faces of fairness: An integrative review of 50 years of organizational justice research. *Journal of Management*, 49(1), 3–39. <https://doi.org/10.1177/01492063221094836>
- Syarifah, H.B.A. (2016). Impact of organizational justice on employee intrinsic and extrinsic performance: A case study in Kota Kinabalu Polytechnic, Malaysia. *Arabian Journal of Business and Management Review*, 5(11), 1 – 23.
- Timan, B., Sundjoto, S., & Sri, R. (2024). The influence of organizational justice on performance with job satisfaction as a mediation variable (case study of East Java Province Inspectorate employees). *International Journal of Research Publication and Reviews*, 5(1), 5346-5356.

- <https://doi.org/10.55248/gengpi.5.0124.0353>
- Uraon, R. S., & Kumarasamy, R. (2024). The impact of justice perceptions of performance appraisal practices on job satisfaction and intention to stay: The mediating role of job engagement. *Employee Relations*, 46(2), 408–431. <https://doi.org/10.1108/ER-07-2022-0328>
- Uraon, R. S., & Kumarasamy, R. (2024). The impact of justice perceptions of performance appraisal practices on job satisfaction and intention to stay: The mediating role of job engagement. *Employee Relations*, 46(2), 408–431. <https://doi.org/10.1108/ER-07-2022-0328>
- Van den Bos, K., & Lind, E. A. (2021). Managing uncertainty through informational justice and organizational communication during the COVID-19 pandemic. *Journal of Personnel Psychology*. <https://doi.org/10.1027/1866-5888/a000325>
- Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviours. *Journal of Management*, 17(3), 601–617. <https://doi.org/10.1177/014920639101700305>
- Xu, G., Huang, Y., & Huang, S. S. (2023). Informational justice and employee knowledge hiding behaviours: Mediation of organizational identification and moderation of justice sensitivity. *Heliyon*, 9(4), e14697. <https://doi.org/10.1016/j.heliyon.2023.e14697>
- Zahran, S. A. E. M., & Eldossoqi, S. S. (2021). Organizational justice perception and job burnout among nurses at port said selected hospitals. *Port Said Scientific Journal of Nursing*, 8(1), 22-51.
- Zayer, C., & Benabdelhadi, A. (2020). The consequences of the perceived organizational justice: a holistic overview. *International Journal of Accounting, Finance, Auditing, Management and Economics*, 1(3), 91-108.