FACULTY OF MANAGEMENT SCIENCES RIVERS STATE UNIVERSITY

Proceedings of the 4th Annual International Academic Conference

Theme:

Management Science Innovations For Organizational And National Sustenance In A Rapidly Shifting Global Economy

Date: 1st - 2nd November 2023

FACULTY OF MANAGEMENT SCIENCES RIVERS STATE UNIVERSITY NKPOLU-OROWORUKWO, PORT HARCOURT

Proceedings of the 4th Annual International Academic Conference

Theme:

MANAGEMENT SCIENCE INNOVATIONS FOR ORGANIZATIONAL AND NATIONAL SUSTENANCE IN A RAPIDLY SHIFTING GLOBAL ECONOMY

Date: 1st - 2nd November 2023

CHIEF-HOST

Prof. N. Gladson Nwokah - Dean Faculty of Management Sciences, Rivers State University, Port Harcourt

CONFERENCE PLANNING COMMITTEE

Dr. Brown Walter Ateke	Chairman
Dr. Soye P. Asawo	Member
Dr. Kellyiyi C. K. Ibama	Member
Dr. (Mrs.) Ruth Lesi Tony-Obiosa	Member
Dr. Chukwunenye Nkwadochi Kocha	Member
Dr. (Mrs.) Elfrida Nwakaego Akani	Treasurer
Henry Wogboroma	Secretary

EDITOR

Brown Walter Ateke PhD

4th Annual International Academic Conference, 2023
© Faculty of Management Sciences, Rivers State University Nkpolu-Oroworukwo, Port Harcourt

Copyright 2023
All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain other non-deposit money uses permitted by copyright law. For permission requests, write to:

The Chairman, Research and Publications Committee Faculty of Management Sciences, Rivers State University Nkpolu-Oroworukwo, Port Harcourt. brown.ateke@ust.edu.ng

Disclaimer
All necessary care has been taken in the compilation of the content of this book of proceedings. However, the responsibility for the views and thoughts expressed as well as any liability for materials used in the development of any of the papers herein lies solely with the individual contributing author(s) and not the publisher/editor.

Table of Content

Part A: Opening Ceremony

Keynote Address by Ken Opara, Ph.D, FCIB, President/Chairman of Council, Pg.1
The Chartered Institute of Bankers of Nigeria

Lead paper by Prof. Isaac Zeb-Obipi, Director, Information and Communication Technology Centre, Rivers State University Pg.7

Concept Notes on the Theme of the 4th International Conference by Prof. Matthew Egbochie, President/CEO, African Academics Network Pg.23

Part B: Plenary

Track 1: Accountancy/Banking and Finance

Track 2: Management/Industrial Relation and HRM

Track 3: Marketing/ Office and Information Management

TRACK 1: ACCOUNTANCY/BANKING AND FINANCE

Chukwunenye N. Kocha & Nnaji Kennady Kelechi Pg.27
Asymmetric Return-Volatility Relationship in the Nigerian Stock Market: The Case of the new CBN Currency Redesign Policy

Iwedi, M. Pg.39
Banking Revolution, Transformational Power of Technology and Emerging Economies: Where is Nigeria?

Jonah, N. M., **Aaron**, C. C., & **Jack**, O. T. Pg.43
Board Member's Competence and Financial Performance of Listed Pharmaceutical Companies in Nigeria

Akani, E. N. Pg.55
Monetary Policy and Net Domestic Credit: Time Variant Study in Nigeria

Babarinde, G. F. Pg. 69
Empirical Evidence from Nigeria: The Role of Government in International Trade

Edeh, M. B., & **Iwedi**, M. Pg.70
Capital Market Reforms and Economic Growth in Nigeria

Iwedi, M., & **Egileoniso**, J. D. Pg.74
Challenges and Adoption of Blockchain Technology in Nigeria

Akani, H. W., **Anyamaobi**, E., & **Lucky**, A. L. Pg78
Comparative Analysis of Nigerian and South Africa Banking Sector: A Critique Approach

Iwedi, M., &Wachuku, I. P. Pg.91
From Credit Cards to Cryptocurrencies: A Historical Perspective on Digital Payments System in Nigeria

Tony-Obiosa, R. L. Pg.97
Adoption of Sustainability Standards in Nigeria: Emerging challenges and Matters Arising

Iwedi, M., & **Okey-Nwala**, P. O. Pg.105
Effect of Financial Innovation on the Growth of Shadow Banking System in Nigeria

Ogbada, E. I., & **Nwawuru**, C. E. Pg.109
Financial Ratio Analysis: A Modeling for Sustainability in the Interpretation of Manufacturing Companies' Financial Statement in Nigeria

Uzah, C. K., **Egileoniso**, D. J., & **Odozi**, V. C. Pg.118
Bank Credits and Advances on Economic Growth in Nigeria

Uwem Etim Uwah Pg.136
Fiscal Federalism and Revenue Accounting in Nigeria's Fourth Republic: Implications for Financial Management and Public Governance in

South-South Geopolitical Zone

Nwansi, G. U., & **Dibiah**, S. Pg.149
Microfinance Credit and the Performance of Small and Medium Businesses in Nigeria

Nwansi, G. U., & **Dibiah**, S. Pg.161
Money Market Instruments and Economic Growth in Nigeria

Udo, E. J., & **Chukwuekezie**, M. N. Pg.174
Corporate Sustainability Accounting and Sustainable Growth of Listed Companies in Nigeria

Wofuru-Nyenke, O. K. Pg.190
Strategies for Enhancing Financial Performance: A Focus on Accounting Control of Nigerian Businesses

Adekola, A. A. Pg.196
Balanced Scorecard and Performance of selected listed companies in Nigeria

Jamilu Abdulkadir Pg.205
Blockchain Technology and Financial Inclusion in Nigeria: An Analysis of the Missing Link

Okereafor, G., **Ndubuisi**, V. N., & **Eke**, A. C. Pg.215
Circular Economy: Rethinking the Linear Business Model for Sustainability

Attahiru, H., **Awal**, A. B., **Mohammed**, N., & **Mohammed**, H. L. Pg.225
Impact of Currency Redesign Policy on the Operations of Hospitality Ventures in New Bussa, Nigeria

Onyendi, H. U. Pg.232
Does Public Sector Economic Policies Drive Economic Globalization? Evidence from Nigeria

James Akpan Pg.243
Econometric Analysis of Inflation and Monetary Policy Indices in Nigeria

Priye W. Andabai & Tonprebofa Waikumo Okotori pg250
Scanning for Empirical Consistencies in Friedman's K Principle: The Nigerian Experience

TRACK 2: MANAGEMENT/INDUSTRIAL RELATION AND HRM

Kpakol, A. G., & **Don-Baridam**, L. Pg.265
Employee Resource Groups and Organizational Alignment towards Shifts in the Global Environment

Uhuru, G. P., **Gabriel**, P. I., & **Ogbonda**, E. H. Pg.273
Despotic Leadership and Employee Quiet Quitting in a Changing Global Economy

Okwurume, C. N., & **Kpakol**, A. G. Pg.283
Knowledge Application and Knowledge Sharing on Performance of Small and Medium Enterprises in South-South Nigeria

Geoffrey B. E. Obinna & Churchill Ikechukwu Akpe Pg.294
Employee Wellbeing and Productivity of Selected Family Businesses in Port Harcourt

Adias, L. T., & **Wokoma**, H. O. Pg.306
Green Human Resource Involvement and Organizational Sustainability of Quoted Manufacturing Companies in South-South Nigeria

Ehule, F. N., & Sunday, O. Pg.318
HR Competence Management and Organisational Sustainability of Deposit Money Banks in Rivers State

Kpakol, A. G., & **Ogbonda**, E. H. Pg.330
Systemic Leadership Interventions and the Repositioning of Nigerian Health Institutions for Emerging Global Contexts,

Wonah, L., **George**, Y. E., & & **Jaja**, I. S. Pg.343
Product Innovation as a Mechanism for Organisational Survival of Soft Drink Companies in Nigeria

Geoffrey, O., & **Jaja**, I. S. Pg.349
Talent Management and Competitiveness: A Study of Food and Beverages Firms in Port Harcourt.

Igweh, F. K., & **Egbule**, A. C. S. Pg.363
Change Management Capability and Competitiveness of Private Hospitals in Rivers State

Lebura, S. Pg.377
Corporate Culture as a Dynamic Capability

Opuwari, P. U. Pg.383
Contract Type Selection and Project Performance: An Optimal Strategy for Achieving Procurement Planning of Swimming Pool Construction Firms in Rivers State, Nigeria

Emmanuel, E. I. Pg.391
Task Performance and Generational Difference Dynamics: A Case Study of Selected Firms in Rivers State, Nigeria

Umanah, I. J. Pg.406
Bad Governance and Economic Development in Nigeria

Ogbulu, T. Pg.421
Total Quantity Management Strategies and Organisational Performance

Durowoju, S. T., & **Odusanya**, K. S. Pg.431
Whistleblowing and Employee's Productivity in Brain Builders Group of Schools Lagos, Lagos State

Abubakar, M. B., **Mustapha**, N. M, **Kambai**, M. P., & **Kawai,** V. Pg.440
Ownership Structure and Performance of Listed Industrial Goods Firms in Nigeria: Moderating Effect of Firm Size

Attahiru H, **Mohammed .** N, **Awal** A.B **, Ayeni** S.M Pg.454
Impact of Tourism on Economic Growth in New Bussa, Nigeria

Idrees, M. G., & **Ogaji**, T. A. Pg.458
Democratization Process and Opposition Party in Nigeria: An Insight

Abubakar, M. B., **Yabagi**, I. M., **Kambai,** M. P., & **Bakut**, J. C. Pg.468
Moderating Effect of Asset Structure on the Relationship between Capital Structure and Performance of Listed Consumer Goods Firms in Nigeria

Track 3: Marketing/ Office and Information Management

Nwulu, C. S., & **Jumbo**, G. D. Pg.480
Logistics Network Design and Efficiency of Courier Firms in Rivers State

Alikornwo, P. M., Adiele, G. C., & **Omunakwe**, P. O. Pg.493
Administrative Intelligence: Corollary for Managing Information Success of Tertiary Institutions in Rivers State, Nigeria

kegwuru, M., & **Olomi**, P. O. Pg.504
Artificial Intelligence-Enabled Demand Forecasting: A Literature Review

Sodeke, A. O., & **Opeoluwa**, O. A. Pg.513
The Regulating Influence of Social Media Advertising on Brand Equity and Customer Repurchase at Crown City Park Resort & Hotel Agbara, Ogun State, Nigeria

Dick, A. S., & **Wosu**, S. Pg.524
Information and Communication Technology and Small and Medium Enterprises Convergence in a Rapidly Shifting Global Economy

Damian-Okoro, I. R., **Ehio**, V. N. & **Akani**, G. H. Pg.536
Electronic Marketing and Customer Engagement of Online Retailers in Rivers State.

Alikornwo, P. M., & **Echendu,** S. I. Pg.549
Hybrid Working: Synthesizing the Agility of Indigenous Oil and Gas Production Firms in Rivers State

Renner, B. A., & **Ifekanandu**, C. C. Pg.560
Digital Marketing Strategies and Business Performance of Telecommunication Firms in Rivers State

Owonte, L. H. Pg.569
Digital Marketing Strategies as Tool for Sustainable Sales Performance of Small and Medium Scale Enterprises in South-South, Nigeria

Damian-Okoro, I. R., **Ehio**, V. N., & **Akani**, G. H. Pg.579
Electronic Marketing and Customer Engagement of Online Retailers in Rivers State

Shekwaga Zakwai Pg.592
Entrepreneurship Development and Poverty Reduction in Chikun Local Government Area of Kaduna State

Chinyere J. O., & **Orisah-Godfrey**, L. A. Pg.603
Information Assurance and Organizational Efficiency of Government Tertiary Hospitals in South – South Nigeria

Chikere, P., &**Renner**, B. A. Pg.615
Innovative Orientation and Growth of Food and Beverage SMEs in Port Harcourt

Elekwachi, H. N. Pg.624
Internet Based Communication and Workplace Productivity of Banking Institutions in Port Harcourt

Imoisi, A. I. Pg.638
Is Increase in Agricultural Sector Output Effective in Reducing Unemployment Rate in Nigeria?

Ikegwuru, M., & **Acee-Eke**, B. C. Pg.673
Modern Slavery in Contemporary Supply Chains: A Literature Review and Future Research Agenda

Ahaiwe, E. O., & **Okereafor**, G. Pg.684
Online shopping and customer patronage: study of students in tertiary institutions in Abia State, Nigeria

Orisah-Godfrey, L. A., & **Modey**, C. I. Pg.696
Digital Transformation Strategies and Organisational Resilience of Small/Medium Enterprises in Port Harcourt, Rivers State

Adiele, K. C., **Omunakwe**, P. O., & **Amachree**, I Pg.706
Data Quality and organizational sustainability in a Dynamic Globalized Economy.

Ikoromasoma, E. Pg.710
Operational Performance: Leveraging Crisis Communication Strategies of Deposit Money Banks in Rivers State,

Owonte, L. H. Pg.722
Marketing Innovations: Strategy for Organizational Sustainability: A case of the Manufacturing Industries in Rivers State, Nigeria,,

Idadokima, S., & **Nwaonuma**, U. D. Pg.734
Quality Management and Supply Chain Performance of Food and Beverages Manufacturing Companies in South-South Nigeria.

Adiele, K. C., & **Kenneth-Adiele**, N. Pg.749
Innovation Orientation and Tourism Sector Performance in a Globalized Economy

Keynote Address Delivered by the President/Chairman of Council, The Chartered Institute of Bankers of Nigeria, Ken Opara, Ph.D, FCIB at the Faculty of Management Sciences Rivers State University, Annual International Academic Conference

Protocol
Good morning distinguished guests, members of the press, Ladies and Gentlemen. It is my utmost pleasure to join you today as the Keynote Speaker at this Annual International Academic Conference themed "Management Science Innovations for Organizational and National Sustenance in a Rapidly Shifting Global Economy" organised by the Faculty of Management Sciences, Rivers State University.

I extend my heartfelt greetings and warm welcome to every one of you present here and I also express my deepest appreciation to the organizers for extending this gracious invitation to me. Most importantly I recognise the presence of the Vice Chancellor, Rivers State University, Prof. Nlerum S. Okogbule, Director, Research and Development, Prof, Victor, Akujuru, and Prof Isaac Zeb Obipi, the Director ICTC and lead presenter at this unique event. I am indeed privileged to be in your midst today.

Ladies and gentlemen, it is important to state that this is a topic of immense significance, one that holds the key to our collective future. You will agree with me also that this platform indeed offers a vital opportunity for intellectual exchange of ideas that are fundamental for the prosperity and sustainability of our organizations and our beloved nation.

As we engage in the discourse today, we will navigate the intricacies of management in a world of perpetual transformation. We will explore how innovation, driven by technology and propelled by ethics, becomes the linchpin of organizational resilience and national prosperity.

Introduction
The contemporary world is a stage of constant change and evolution, where the speed of transformation is unparalleled. In today's fast-paced global economy, the integration of management science innovation has emerged as a critical factor for both organizational and national sustainability. Leveraging empirical evidence and data-driven decision-making, Institutions, organizations and countries can effectively navigate the challenges presented by technological disruptions, market fluctuations, and changing consumer preferences.

Over the last few decades, we have witnessed a remarkable surge in technological advancements, profound alterations in consumer behaviour, and intricate geopolitical shifts. These shifts have not only reshaped market dynamics but have also redefined the very essence of how businesses operate and interact on the international stage. In the face of such rapid and transformative shifts, effective management becomes the cornerstone for navigating through these uncharted waters. Management, as a discipline, encapsulates the art of organizing and optimizing resources, aligning strategies, and empowering human capital to achieve organizational objectives. In the context of the dynamic global economy, proficient management is the compass that guides organizations through the turbulence, enabling them to capitalize on opportunities and mitigate risks.

Understanding the Rapidly Shifting Global Economy
Recent research by the International Monetary Fund (IMF) highlights the increasing interconnectedness of global markets, indicating a higher vulnerability to economic shocks and uncertainties.

The IMF World Economic Outlook report of 2023 underscores the rapid evolution of technology, geopolitical tensions, and environmental challenges as key drivers of global economic shifts. Consequently, this necessitates a proactive and adaptive approach from organizations and nations alike to maintain economic stability and sustainable growth.

Understanding and gaining deep insights into these multifaceted factors are of paramount importance for a wide spectrum of stakeholders. This encompassing group includes businesses of all scales, from startups to conglomerates, seeking to adapt and thrive in this ever-evolving economic environment. Likewise, policymakers at both national and international levels must possess a profound understanding of these factors to formulate effective policies and regulations that foster economic growth, stability, and sustainability.

Factors Influencing Global Economic Shifts
The factors influencing Global Economic shifts range from microeconomic forces within individual industries to macroeconomic elements that shape entire nation which include:

Economic policies and regulations
Government policies, fiscal and monetary measures, and trade regulations have a substantial impact on the global economy. Changes in taxation, trade tariffs, or monetary policies can significantly influence investment decisions, trade flows, and overall economic stability.

Market demand and supply
Fluctuations in market demand and supply, driven by various factors such as consumer preferences, innovation, or external shocks, can lead to shifts in production, pricing, and trade patterns.

Currency exchange rates
Currency values and exchange rates influence international trade and investment. Changes in exchange rates affect the competitiveness of exports and the costs of imports, thus affecting a country's trade balance.

Labour markets and demographics
The composition of the workforce, including skills, education levels, and demographic trends, can influence economic growth and productivity. Labour market dynamics impact wages, consumer behaviour, and industrial structures.

Global financial markets
The health and stability of financial markets worldwide, including stock exchanges, banking systems, and investment instruments, impact the overall economic health and investment climate of nations.

Technological advancements
Technology stands as a paramount factor, propelling significant shifts and transformations. The digital revolution, marked by technologies like Artificial Intelligence, Internet of Things, and blockchain, have revolutionized industries, altering consumer behaviours and market dynamics. These advancements have led to a borderless market, improved cost efficiency, and the emergence of new job roles. Ultimately, technology is a catalyst for innovation and growth, shaping the economic landscape and influencing how businesses and societies interact and evolve.

Role of Management Science in Adapting to Global Changes
Management science, often referred to as the science of decision-making and organizational coordination, lies at the heart of our ability to adapt to these shifts in the global economy. It is a discipline that has evolved over decades, responding to the changing needs of businesses and society. At its core, management science provides the tools, methodologies, and theoretical frameworks that

empower us to make informed decisions, optimize resources, and navigate through uncertainty with confidence.

According to a study published in the Journal of Management, organizations that embrace management science innovation experience improved operational efficiency, enhanced decision-making capabilities, and a greater ability to adapt to market changes. Effective utilization of management science tools, such as data analytics, artificial intelligence, and operations research, enables businesses to optimize resource allocation, reduce costs, and innovate, thus fostering sustained growth and competitive advantage.

In the same vein, a Research conducted by McKinsey & Company, October 2022, highlights the significance of management science innovation in building organizational resilience. The study emphasizes that companies/Institutions integrating data-driven decision-making processes and agile methodologies witness a 30% higher revenue growth compared to their counterparts. By leveraging advanced analytics for predictive modelling, businesses can anticipate market trends, mitigate risks, and capitalize on emerging opportunities, thereby ensuring long-term sustainability and resilience in an unpredictable business environment.

Also, a report published by the World Economic Forum (WEF) underscores the crucial role of management science innovation in driving national competitiveness and economic sustainability. Countries actively investing in research and development (R&D), digital infrastructure, and education witness a positive correlation between innovation-driven growth and overall economic development. The report highlights the success of nations such as South Korea, Finland, and Singapore, which have strategically prioritized innovation and technology as key drivers of economic progress, leading to enhanced global competitiveness and sustained economic prosperity.

Innovations in Management Science for Organizational Sustenance

Data Analytics and Decision-Making

Given the data driven landscape of today's business world, the effective use of data is a game-changer. Data analytics, a powerful tool within the domain of management science, has emerged as a cornerstone for informed decision-making, revolutionizing how organizations strategize, operate, and compete. These include:

- Predictive analytics for informed decision-making
- Big data and its role in organizational strategies
- Future of data analytics in management science

Artificial Intelligence (AI) and Machine Learning

Artificial Intelligence (AI) and its subset, Machine Learning (ML), have become integral components of modern management science. These technologies have revolutionized the way organizations operate, making processes more efficient, insightful, and adaptive. These includes:

- Automation of routine tasks and processes
- Enhancing efficiency and productivity
- Future of AI and machine learning in management science

Agile Methodologies and Organizational Flexibility

In an era characterized by rapid change and uncertainty, agility has emerged as a crucial paradigm in management science. Agile methodologies, initially rooted in software development, have transcended their origins to become fundamental in various organizational domains. They facilitate adaptability and responsiveness, allowing organizations to navigate through volatile markets and evolving customer expectations. These includes:

- Agile project management and adaptive strategies
- Responding to market changes in real-time
- Future of agile methodologies in organizational flexibility

Sustainability and Ethical Considerations in Management

In the contemporary landscape, sustainability and ethical considerations have transitioned from being buzzwords to core tenets of responsible business practices. Management science is at the forefront of fostering sustainable business models and promoting ethical leadership, acknowledging the imperative of balancing economic prosperity with social responsibility and environmental stewardship. These includes:

- Sustainable Business Practices for Long-Term Viability, which has to do with Environmental Responsibility and Effective Governance.
- Future of Sustainability in Management. The future of management science lies in the seamless integration of sustainability into organizational strategies. This entails embedding sustainability practices into the core of business operations. Advancements in technology will play a pivotal role by providing tools and frameworks to measure and monitor sustainability efforts and goals.

National Sustenance through Management Science Innovations

Government policies and support for management innovation

In the pursuit of national sustenance and progress, governments play a pivotal role in fostering an environment conducive to innovation within the realm of management science. Forward-thinking policies and active support mechanisms are crucial in stimulating innovation, empowering organizations, and driving economic growth.

These policies encompass a range of aspects:

- Incentivizing Research and Development
- Promoting Knowledge Transfer: Facilitating knowledge transfer from academic research to practical applications is vital. Governments must promote collaboration between academia and industry, encouraging the application of cutting-edge research findings to enhance management practices.
- Regulatory Support for Innovation
- Education and Training Programs
- Entrepreneurship Support
- Public-Private Partnerships (PPPs)
- Future Outlook for Government Support: As the landscape of management science continues to evolve rapidly, governments will need to stay proactive in adapting their policies to align with the changing dynamics. Anticipated future steps include enhancing support for emerging technologies, bolstering cybersecurity measures, and promoting sustainable management practices to address the challenges of the evolving global economy.

Challenges and Opportunities for National Sustainability

National sustainability is a multifaceted goal encompassing economic, social, and environmental dimensions. It involves ensuring that present generations meet their needs without compromising the ability of future generations to meet theirs.

Challenges to National Sustainability

- Climate Change and Environmental Degradation
- Economic Inequality
- Resource Depletion:

Opportunities for National Sustainability

- Renewable Energy and Green Technologies
- Sustainable Urban Planning
- Education and Awareness
- Collaboration and sustainable practices are the linchpins for achieving national sustenance. As governments, private sectors, and civil society entities work in harmony, leveraging innova-

tive approaches and addressing challenges, nations can strive towards sustainable economic growth and a better quality of life for their citizens.

Conclusion

Embracing management science innovations is no longer an option but an imperative in today's dynamic global economy. These innovations, driven by technology, are the lifeblood of adaptability, efficiency, and progress. As we navigate a landscape of economic shifts, agile methodologies empower us to respond to market changes in real time. Institutions and nations must seize the opportunity to harness these innovations for sustained growth. It's a journey that demands investment in knowledge, human capital, the cultivation of collaboration, the pursuit of sustainability, and the nurturing of innovation and entrepreneurship. As we adapt to the ever-changing global economy, we pave the way for a future that is not just prosperous but also sustainable and equitable for all.

It is important to state that The Chartered Institute of Bankers of Nigeria (CIBN) plays a vital role in promoting and fostering sustainable business practices in the banking and financial sector in Nigeria. Through education, ethical standards, advocacy for sustainable finance, consumer protection, collaboration with regulators, research, capacity building, and raising public awareness, the CIBN contributes significantly to a more responsible, ethical, and sustainable banking industry in the country.

On this note, let us embark on this collective journey with a shared commitment to making these innovations a reality in our organizations, our communities, and our world. Together, we will build a sustainable, prosperous, and equitable future where management science innovations are not just tools but the very bedrock of our success.

Good morning once again and thank you for listening.

Bibliography

Management Science. Retrieved from https://www.businessmanagementideascom/essays/ management-science-definition-characteristics-and-tools/9080

The Importance of Data Analytics in Business Decision-Making. Retrieved from https://ada-asia.com/insights/the-importance-of-data-analytics-in-business-decision-making#:~:text= Data%2Ddriven%20decision%20making%20is,solely%20on%20intuition%20or%20experience

Artificial Intelligence (AI) vs. Machine Learning. Retrieved from https://ai.engineering.columbia.edu/ai-vs-machine-learning/

Artificial intelligence (AI) vs. machine learning (ML). Retrieved from https://azure.microsoft.com/en-us/resources/cloud-computing-dictionary/artificial-intelligence-vs-machine-learning

Agile methodologies and organizational agility. Retrieved from https://www.spf-consulting.com/insights/agile-methodologies-and-organizational-agility/#:~: text=Throughout %20the%20course%20of%20your,its%20ability%20to% 20 accommodate%20change

Examining the roles of government policy on innovation. Retrieved from https://www.sciencedirect.com/science/article/abs/pii/S1047831014000133

The Five Best Policies to Promote Innovation - And One Policy to Avoid. Retrieved from https://www.gsb.stanford.edu/insights/five-best-policies-promote-innovation-one-policy-avoid

Sustainable Development Challenges. Retrieved from https://sustainabledevelopment.un.org/content/documents/2843WESS2013.pdf

Kanayo K. Ogujiuba, Kizito Uyi Ehigiamusoe & Ugwuoti Okechukwu Patrick (2013). The challenges and implications of sustainable development in Africa: Policy options for Nigeria. Retrieved from https://www.researchgate.net/publication/287305854_The_challenges_and_implications_of_sustainable_development_in_Africa_Policy_options_for_Nigeria

Lead paper:

Organizational and National Sustenance in a Rapidly Shifting Global Economy: Management Science Innovations to the Rescue

Prof. Isaac Zeb-Obipi, FCAI, FIMC, FIHNR, MAMN, MCIPM
B.Ed. (Econs.), MBA (Management), PhD (Organizational Behaviour)
Department of Human Resource Management and Industrial Relations
Faculty of Management Sciences
Rivers State University Nkpolu-Oroworukwo, Port Harcourt

Abstract
The world is in a period of rapidly shifting global economy as evident in economic, industry, market, technological and socio-cultural changes or shifts. These shifts are not only rapid, they are interconnected and have implications for organizational and national sustenance manifest in the opportunities and threats associated with such changes. Traditional Management Science approaches suggested by the formal, interpersonal, quantitative and contingency management and most of their derivatives seem inadequate to address the challenges consequent upon the rapidly evolving global economy. Management Science innovations have come to the rescue, ensuring that organizational and national sustenance is achieved. Some of these include HR Analytics, HR Blockchain, HR Metaverse, Green Finance, Robor-Advisor, RegTech, Cloud Computing, User-centric Design etc. It is recommended that these should be adopted by businesses and countries to achieve sustenance.

Keywords: Organizational and National Sustenance, Rapidly Shifting Global Economy, Management Science Innovations

INTRODUCTION

Society today is characterized by swift globalization, speedy technological advancement, and intricate interconnections that require new approaches to organizational and national sustenance. Economies, industries, markets, technology and other aspects of the society (socio-cultural) are subject to continuous changes, driven by technological advancements, shifts in consumer preferences, regulatory changes, and global events. Consumer tastes and preferences are constantly shifting, influenced by societal trends, cultural changes, and demographic shifts. Rapid technological progress has become a primary driver of change in industries, markets and diverse aspects of life, including innovations. Innovations such as artificial intelligence, cloud computing, automation, blockchain technology, augmented reality, and virtual reality have the potential to disrupt traditional business models, create new opportunities, and render existing products and services obsolete. Economic cycles, inflation, interest rates, and currency fluctuations have a significant impact on purchasing power and consumer behavior. The changes are not only rapid, they are also interconnected and diverse; and so are their effects.

One area of the effect of the rapidly shifting global economy is the challenges posed to traditional management strategies. As the global business environment continues to evolve rapidly, traditional management practices are encountering novel opportunities, prospects, and challenges. Traditional methods or established approaches of the Management Sciences that have been widely used for many years in organizations include **Formal Approaches** (Scientific, Administrative and Bureaucratic Management), **Interpersonal Approaches** (Psychological, Human Relations and Sociological Approaches), **Quantitative Approaches** (Economic, Analytical and Decision Approaches) and **Contingency Approaches** (System, Intuitive and Political Approaches). While this categorization is slightly different from earlier classifications of management theories (Baridam, 2021; Jaja &

Zeb-Obipi, 2005), several other management approaches can be accommodated within this classification. In reference are approaches such as Total Quality Management (Kaynak & Rogers, 2013; Wang, 2005; Talha, 2004), SWOT analysis (Humphrey, 2005), Pareto analysis, also known as the 80/20 rule (Dunford, Su & Tamang, 2014), Decision tree **(**Magee, 1964**)**, Management by Objectives or MBO (Drucker, 1954).

These traditional Management Science methods are no longer sufficient for organizations to meet the requirements of the modern business environment (Spangler, 2023; Christensen & Raynor, 2013; Stawski, 2019). Some of them are too static or given (everyone doing the same thing again and again), but the world is changing very quickly. While their application in a simple, static and placid environment of the past has been successful and could still be for businesses with such immediate environment, their application in a complex, dynamic and turbulent environment of today is highly constrained. Therefore, there is a need for innovative Management Science practices or approaches. Innovative approaches are those capable of bringing about transformative changes that can enhance efficiency, competitiveness, and sustainability in the face of business hurdles. They have risen to meet the challenges of the rapidly shifting global economy. Given that this is the thrust of this conference, this paper explores some innovative management practices or approaches and examines how Management Science innovations can contribute to the sustenance of organizations and nation-states in a rapidly changing global economy.

Rapidly Shifting Global Economy

Rapidly shifting global economy refers to the constant and significant changes that occur in the world's economic landscape. Sundararajan (2014) states that it is a dynamic and interconnected system that is constantly evolving. Ohmae (2005) and Heinrichs (2013) acknowledge that several factors have contributed to the rapid shifts and transformations in the global economy. These factors include technological advancements, globalization, trade and tariffs, environmental concerns, demographic changes, pandemic impacts, financial markets, and social impact. Demographic trends, such as aging populations in many developed countries and youth bulges in certain emerging markets, have economic implications. These changes can affect labour markets, consumer behavior, and other aspects of society, which in turn impact national economic growth and business profitability.

Technological innovations, particularly in areas such as artificial intelligence, automation, and digitalization, are driving significant changes in the global economy. These innovations are reshaping industries, economies, and the nature of work. AI and automation technologies are capable of performing tasks more quickly and accurately than humans. Mckinsey Global Institute (2022) asserts that AI and automation have the potential to boost productivity by 13% to 26% by 2030, which is equivalent to a $15 trillion to $21 trillion boost to the global economy. This increased efficiency leads to higher productivity in various sectors. For example, in manufacturing, robots can assemble products at a much faster pace, which reduces production costs and improves overall output. Automation can significantly reduce labor costs. This is particularly evident in industries where repetitive tasks were previously performed by human workers. Lower costs can result in more competitive pricing for consumers and increased profits for businesses. Digitalization and AI enable the creation of entirely new business models. Companies can utilize data analytics and artificial intelligence (AI) to personalize products and services for customers, resulting in the creation of new revenue streams. According to Forbes (2023), 90% of marketers are currently utilizing AI to enhance personalization and create a better customer experience. The subscription model, sharing economy, and platform-based businesses are examples of innovative models enabled by technology.

The interconnectedness of economies around the world continues to increase. Economic events in one part of the world can have far-reaching effects on other regions, creating a more complex and interdependent global economy. A disruption in the production of a crucial component in one

country can have a ripple effect, impacting the production of goods in multiple other countries that depend on that component. Financial markets are highly interconnected across the globe, and events in one market can trigger reactions in others. A financial crisis in one country can lead to a global stock market crash, affecting the investments and retirement savings of individuals worldwide. More so, the prices of commodities such as oil, minerals, and agricultural products are influenced by global factors. A drought in one region can impact global food prices, and geopolitical tensions in oil-producing countries can result in fluctuations in energy prices worldwide. Even the exchange rates are interconnected, and fluctuations in one currency can impact international trade. A strong or weak currency can affect a country's competitiveness in global markets. A sudden devaluation or appreciation of one currency can lead to a domino effect in currency markets (Drehmann, Maronoti & O'Connor, 2023). This complexity and interdependence necessitate a more nuanced understanding of the global economic system and the need for cooperation and coordination at national and international levels to address the challenges and opportunities that arise in this interconnected world. Organizations and nations now leverage on Management Science innovations to experience several positive outcomes and gain competitive advantages. These innovations enable organizations to navigate complex business environments and create value for society; leading to organizational and national sustenance.

Organizational and National Sustainenace

Organizational sustenance refers to an organization's ability to stay alive, not being stagnant and not going into a downward slide in its operations in the long term. The ability of organizations to sustain their operations and achieve their goals in the long term, while minimizing negative impacts on the environment, society, and the economy, is crucial. It is essential that they consider economic viability, environmental sustainability, and social responsibility, as these factors often contribute to the well-being of a nation. Studies have shown that when organizations integrate sustainability and recognize the importance of ethical business practices, cost reduction, resource efficiency, and innovation, they can withstand the test of time and achieve economic sustainability of a nation (Grove & Clouse, 2018; Schaltegger, Lüdeke-Freund, & Hansen, 2012; MacArthur, 2013). This not only benefits organizations but also contributes to the broader economic, social and environmental well-being of the nation in which they operate. It can have a positive impact on the nation's overall sustainability and economic stability, as well as enhance its global reputation. Additionally, it has the potential to attract investments and trade partners who are interested in sustainable practices.

National sustenance, on the other hand, pertains to a country's ability to meet the basic needs of its population and maintain economic, social and environmental stability over an extended period. A sustainable national economy has the potential to create jobs, maintain stable inflation rates, and guarantee a reasonable standard of living for its citizens in the long term. This involves managing public finances, fostering innovation, and promoting entrepreneurship to ensure continuous wellbeing of the citizenry. Countries are striving for sustainable economic growth, societal well-being, and global integration, leading them to investigate new ways to balance economic, environmental, and social objectives (Colglazier, 2015; United Nations, 2015). This has prompted them to explore innovative strategies that allow them to harmonize and prioritize their economic, environmental, and social goals. In their quest for sustainable economic growth, countries are aiming to develop their economies in a manner that do not deplete resources or harm the environment in the long run (MacArthur, 2013; Kirchherr, 2022).

They do so by embracing new technologies. New technologies are changing the way businesses operate, and businesses need to adapt to these changes swiftly and tactically to remain competitive. According to Schwab (2008), the level of competitiveness in a country indicates its ability to provide greater prosperity to its population. As the workforce is changing, with more women, millennials, and immigrants entering the workforce, these workers have different expectations and needs than traditional workers, and businesses need to be able to adapt their management practices to

meet these needs. In response to these shifts, the field of Management Sciences has emerged as a reliable source of guidance, offering innovative ideas and solutions to navigate the complexities of the contemporary business environment.

Management Science Innovations

Management Science innovation is the integration of novel cutting-edge techniques, methodologies, and technologies from the field of Management Sciences into an organization's processes; and this field includes Accounting, Banking and Finance, Human Resource Management, Management, Marketing and Office and Information Management in our immediate context. This integration aims to improve efficiency, effectiveness and strategic outcomes. It involves applying innovative and creative methods to drive positive changes within an organization and society as a whole.

Chen, Viardot, and Brem (2019) observed that innovation is crucial in corporate competitiveness, economic growth, and national sustainability. For OECD (2005), innovation encompasses the development of new products, business processes, and changes that generate wealth or contribute to social welfare. Rogers, Singhal, and Quinlan (2014) viewed innovation as an idea or practice that is perceived as new. Kennard (2018) stated thus: "Innovation is the process that generates value from the creation, development, and implementation of new ideas, technologies, products, and services. He opined that innovation is a management task that strives to achieve higher turnover, increased profit, and minimize waste. Therefore, innovation in Management Sciences is crucial for the future success of an organization and the national economy. A firm can make better decisions, streamline its operations, reduce waste, and improve overall efficiency when it explores new approaches to problem-solving.

As organizations face market challenges that include rapidly changing technology, increased competition, higher raw material costs, and shortened product lifecycles, they create policies, design the infrastructure, and provide incentives within the workplace that allow their employees and managers to work effectively and efficiently in solving these problems (Kennard, 2018). The emergence of new, innovative competitors entering the marketplace with improved products, services, and processes effectively captures a significant share of the market. Regardless of the size or sector of a firm, it must adjust its management strategies to remain competitive and resilient.

To stay competitive, organizations must embrace new approaches that result in robust engagement and productivity, greater accountability and initiative at all levels, enhanced flexibility in organizational performance, more precise identification of risks, opportunities, and ideas, and improved decision-making. It is essential to introduce innovative management practices to bring about these transformations, as these innovations transcend traditional boundaries and bridge the gap between the corporate sectors, fostering collaboration for mutual benefit. This section will discuss some innovative Management Science practices that organizations and nations can employ to achieve sustenance in a rapidly changing global economy.

1. HR Analytics (Workforce analytics): This is the process of gathering and analyzing an organization's workforce data to make data-driven decisions that improve overall business performance. It involves using quantitative and statistical techniques to gain insights into various aspects of the workforce, such as recruitment, retention, performance, productivity, and employee engagement (Madsen & Slåtten, 2017). According to van den Heuvel & Bondarouk (2016), HR analytics is the systematic identification and quantification of the factors that influence business outcomes in relation to people, with the purpose of making informed decisions. Several authors agree that there is a lot of hype and buzz surrounding HR analytics, and it is generally seen as a necessity for organizations in the 21st century (Platanou & Mäkelä, 2016; van den Heuvel & Bondarouk, 2016). It can help organizations identify and eliminate inefficiencies in their HR processes, which can ultimately result in significant time and cost savings. It can also help organizations forecast their future workforce needs and develop strategies to meet those needs, as well as understand

and improve the employee experience. By identifying the factors that contribute to employee engagement and satisfaction, organizations can develop and implement programs and initiatives to create a more positive and productive work environment.

2. HR Blockchain: This is a distributed ledger technology that can be used to securely store and manage HR data in a tamper-proof manner. This technology is promising in a rapidly shifting global economy because it improves the efficiency, transparency, and security of HR processes. It can help protect sensitive HR-organizational data from unauthorized access and tampering, as well as reduce fraud and errors. It can also be used to track employees' skills and experience, which helps organizations make better staffing decisions. Arif (2021) opined that blockchain can help automate many HR processes, such as recruitment, onboarding, and payroll. Several other authors have observed that organizations are incrementally adapting to market shifts and embracing HRBlockchain innovation to remain competitive and thrive (TecTrends, 2018; Chillakuri & Attili, 2022). The HRBlockchain innovation is indeed credible, as it is renowned for its security, trust, transparency, data integrity, and immutability. It has the potential to revolutionize various aspects of HR management. Once data is recorded on the blockchain, it cannot be altered without the consensus of the network. This feature ensures the integrity of employee records, certifications, and other crucial HR information. Using blockchain for payroll can also ensure accurate and timely payments, reduce errors, and prevent fraud. Therefore, HRBlockchain increases the value of the HR function (Parry, 2011), improves organizational effectiveness (Lengnick-Hall & Moritz, 2003), and contributes to individual and organizational performance (Strohmeir, 2007) in a rapidly shifting global economy.

3. HR Metaverse: The HR Metaverse is groundbreaking and can help organizations revamp the value they offer to their employees by actively and holistically managing their workforce (Zeb-Obipi & Kpurunee, 2023). The use of virtual reality (VR) and other immersive technologies can enhance various aspects of Human Resource Management, including recruitment and onboarding, training, development, and employee engagement. It provides incredible values, seamless processes, virtual team collaboration, and improved work efficiency. As a result, it can be implemented in organizations for various purposes, such as HR Avatar (digital representations that foster a more cohesive and compassionate team), virtual HR onboarding (a strategy to engage and equip new employees across different locations in a standardized and simulated manner), virtual meetings and collaboration (technologically mediated methods of interaction between team members in remote and hybrid workplaces), virtual events for employees (utilizing the metaverse to host conferences, wellness programs, mentorship programs, and work-life balance initiatives that can be attended by employees from anywhere in the world), and virtual employee training and mentorship (enhancing employee skills, knowledge, and competencies remotely or through digital platforms, rather than in-person or face-to-face training) (Zeb-Obipi & Kpurunee, 2023). The increasing interest in virtual training and development can be attributed to the fact that 65% of the population prefers visual learning, especially through video content (Zopf, Giabbiconi, Gruber & Müller, 2004). Other studies have confirmed that approximately 80% of the population has a preference for visual learning (Kim et al., 2006; Yang et al., 2013). Credibly, this innovative approach can help organizations adapt to the evolving work environment and maximize the potential of their employees in a rapidly shifting global economy.

4. Green Finance: This refers to financial activities, investments, and initiatives that are specifically aimed at promoting environmental sustainability and addressing climate change (Ünüvar, 2019). It involves allocating capital to projects, businesses, and activities that have a positive impact on the environment and a low carbon footprint. Green finance encompasses a range of financial instruments, including green bonds (a source of funding for projects intended to deliver a positive environmental impact), green loans (designed to finance projects that contribute to environmental sustainability), sustainable investment funds (investment vehicles that specifically target companies and projects with strong environmental, social, and governance – ESG - performance), ESG integration (ensuring that environmental considerations are part of the investment process), and regulatory and policy incentives (offering incentives such as tax breaks, subsidies, or favorable regulatory treatment) (Dembele, Schwarz & Horrocks, 2021). It is a crucial element in global initiatives to achieve sustainability objectives, as outlined in the United Nations' Sustainable Development Goals (SDGs) and the Paris Agreement on climate change (United Nations, 2022). Green finance aims to direct investments and financial resources towards environmentally sustainable projects and businesses, while simultaneously reducing the flow of capital to activities that have a negative impact on the environment. It plays a crucial role in the transition to a more sustainable and low-carbon global economy, addressing issues such as climate change, biodiversity loss, pollution, and resource depletion.

5. Robo-Advisor: This is an automated investment platform that utilizes algorithms to build and manage investment portfolios. It is a digital platform that offers automated, algorithm-driven financial planning and investment services with little to no human supervision (Frankenfield, 2023). It is made accessible to a wide range of investors, with lower minimum investment requirements, and a hands-off approach to investing. Robo-advisors have gained significant attention in recent years as a new way to manage investments. The robo-advisor market was worth $4.51 billion in 2020, and it is anticipated to expand to $54.15 billion by 2028, exhibiting a compound annual growth rate (CAGR) of 31.84% from 2021 to 2028 (Fernandes, 2023). This innovative strategy utilizes algorithms and automation to provide investment advice and manage portfolios for clients. It typically charges lower fees compared to traditional human advisors, which can be especially appealing to investors who want to minimize costs and avoid the high fees associated with conventional financial advisors. Robo-advisors employ sophisticated algorithms to create well-diversified portfolios that are tailored to an investor's risk tolerance and financial goals. This can help reduce risk and enhance long-term returns. It also offers user-friendly online platforms that make investing more convenient.

6. RegTech (Regulatory Technology): It is the use of technology to help businesses and financial institutions comply with regulatory requirements more efficiently and effectively. This innovative strategy involves applying technological solutions to streamline and automate the complex and time-consuming processes associated with regulatory compliance in various industries, particularly the financial services sector. RegTech is becoming increasingly important in an environment where regulatory requirements are becoming more complex and stringent, particularly in highly regulated industries such as finance (Gurung & Perlman, 2018). It is an approach that uses automation and data analytics to ensure that companies are adhering to the ever-evolving regulatory standards and reporting requirements. This can involve activities like risk management, regulatory reporting, and identity verification (Bark, 2023). With the implementation of this digital solution, organizations can streamline their operations while meeting stringent standards for regulatory compliance.

7. Cloud computing: This is a technology that enables organizations to access and use a wide range of computing resources and services over the internet. It leverages a network of remote servers hosted in data centers (Attaran, 2017). Its services are categorized as Software as a Service (delivery of software applications and services over the internet), Platform as a Service (delivery of a computing platform and solution stack), and Infrastructure as a Service (provision of virtualized hardware resources to run services and applications on shared infrastructure through virtualization technology) (Padhy, Patra & Satapathy, 2011). Cloud computing offers several benefits to organizations in a rapidly shifting economy. It helps them adapt to

changing circumstances, increase efficiency, and remain competitive. It allows organizations to scale their IT resources up or down based on changing demands, and this flexibility is crucial in a rapidly shifting economy where market conditions can change rapidly (Josyula, Orr & Page, 2011). Organizations can quickly add or remove resources as needed, ensuring that they are not overprovisioned during slow periods and are prepared for increased demand during growth phases. A plethora of studies affirm that cloud applications and services enable employees to work from any part of the world, improving business continuity and resilience, and cloud services enable organizations to collect, process, and analyze large amounts of data to gain insights and make informed business decisions (Demirkan & Delen, 2013; Niu, Ying, Yang, Bao & Sivaparthipan, 2021; Saggi & Jain, 2018). It facilitates remote work and collaboration, a capability that has become even more essential in a rapidly shifting economy, as evidenced during the COVID-19 pandemic. Cloud providers also offer robust business continuity and disaster recovery solutions. This ensures that organizations can maintain critical operations and data availability, even in the face of unexpected disruptions or crises. This is crucial in an economy where unforeseen events, such as natural disasters or cyberattacks, can disrupt business operations.

8. User-centric design: This is an innovative approach to designing products, services, or systems that prioritizes the needs, preferences, and behaviors of the end users in the design process. It focuses on designing interactive systems that meet users' needs and interests, using ergonomic principles and usability techniques (Chammas, Quaresma & Mont'Alvão, 2015). The primary goal of user-centric design is to create solutions that are intuitive, effective, and satisfying for users. This approach brings together individuals with diverse expertise to foster creative and collaborative ideas, thereby benefiting projects through the inclusion of a wide range of perspectives and skills. It provides several significant advantages for organizations. Meeting user needs and preferences directly leads to higher customer satisfaction; and satisfied customers are more likely to remain loyal, recommend products or services, and become brand advocates (Kpurunee, 2023). Organizations that can quickly adapt to changing user expectations and needs have a competitive edge. User-centric design helps organizations remain agile and responsive to market shifts. It encourages innovation by fostering a deep understanding of user problems and needs, which leads to the creation of new, groundbreaking products or services that capture market share.

9. Remote work solutions: This is a collection of tools, technologies, and strategies that empower employees to work from locations outside of the conventional office setting. It involves solutions that create synergy for work and eliminate barriers that could hinder work (Zeb-Obipi & Kpurunee, 2023). Providing employees with the tools and functionalities needed for work can enhance efficiency and drive positive work outcomes (Williams & Schubert, 2018). According to Attaran, Attaran and Kirkland (2019), working remotely can foster connections and eliminate barriers among employees, information, and processes. A well-implemented remote work solution enables organizations to tap into a broader talent pool, reduce overhead costs, and offer employees the flexibility to work from locations that best suit their needs. It can also improve business continuity by ensuring that work can continue during disruptions such as natural disasters or public health emergencies.

10. Workflow automation: This is the utilization of technology to streamline and automate the sequence of tasks, actions, and processes within an organization (Zur Muehlen, 2004). It aims to improve efficiency, reduce manual intervention, minimize errors, and ensure that work progresses smoothly (Cain & Haque, 2011). The adoption of workflow automation tools and technologies has seen a steady rise in recent years. Organizations across diverse sectors are implementing this

innovative approach to optimize their business processes, improve efficiency, reduce operational costs, and enhance productivity (Telukdarie, Buhulaiga, Bag, Gupta & Luo, 2018).

11. Blue Ocean Strategy: Blue Ocean Strategy is the strategic alignment of three propositions: the value proposition, the profit proposition, and the people proposition (Knauss, 2010). It focuses on risk minimization, which involves identifying all possible risks and pursuing innovative and profitable strategies, such as creating new products and services to meet the needs of unserved or underserved markets. This strategy creates and captures new demand, de-segments the market (by identifying widely shared needs), and focuses on creating uncontested market space. It is based on the idea that there is more to be gained by creating new markets than by competing in existing ones. The strategy encompasses growth and innovation, creative methods, new brand development, global business reach, corporate branding, and future strategies of an organization that drive growth and profitability (Kim & Mauborgne, 2014). In today's business world, most organizations are primarily focused on new business launches and incremental improvement. They typically adopt a productivity management approach, which emphasizes operational efficiency, quality control, cycle times, and cost management. However, this approach often overlooks the importance of creativity management, which involves creativity methods, new brand development, global reach, corporate branding, and future strategy. Kim and Mauborgne (2014) revealed in their study that 86% of new business launches are red ocean moves, where competition is fierce and the market space is already saturated. On the other hand, only 14% of new businesses are truly innovative moves, characterized by strategic actions that introduce new ideas, products, processes, or approaches. These innovative moves disrupt traditional norms, create value, and have the potential to lead to a competitive advantage. According to them, 14% of the innovative moves experience a profit impact of 86%. The logic behind this strategy is that it supports an organization in increasing value for buyers and reducing the cost structure of the industry. Hence, organizations need to challenge existing assumptions and explore novel solutions to address problems or capitalize on opportunities. Innovative moves often require thinking beyond conventional boundaries.

12. Data-Driven Decision Making: Data-driven decision-making is a process in which businesses and organizations utilize data and relevant insights to inform their choices and actions in decision-making. Leveraging big data is crucial for organizations to extract value from a vast degree of information. Every organization, whether public or private, relies on precise data analytics to make informed decisions (Zulkarnain & Anshari, 2016). Instead of relying solely on intuition or gut feelings, data-driven decision-making involves collecting, analyzing, and interpreting data to make informed and objective decisions, improve efficiency, and minimize costs. Indeed, data-driven organizations are 23 times more likely to acquire customers, 6 times more likely to retain those customers, and 19 times more likely to be profitable (Doxee, 2022). The term "big data" encompasses the immense volume of data generated by enterprises, governments, and individuals alike. This reservoir of data provides the ability to discern patterns and trends that would otherwise be difficult to identify within smaller datasets. Amazon, as one of the world's largest e-commerce and technology companies, has been positively impacted by using big data. Its cloud computing platform heavily relies on big data technologies to provide scalable and efficient cloud solutions to businesses worldwide. Amazon Web Services itself generates massive amounts of data, and Amazon uses this data to optimize and improve its services. In the second quarter of 2021, Amazon Web Services (AWS) achieved a significant milestone by generating a record-breaking $14.8 billion in net sales. This accounted for slightly over 13% of Amazon's total net sales (Amazon, 2021; Investopedia, 2022). Big data has the potential to transform the banking industry by effectively increasing cybersecurity, enhancing customer retention processes, identifying new market opportunities, and developing new products and services (Doxee, 2022). It can also be used to identify and prevent fraud by analyzing customer transactions, payment patterns, and IP addresses. Typically, with the expo-

nential or rapid increase in electronic records, efficient data management has a daily impact on the economy.

13. Agile Methodologies: These are a set of principles and practices that emphasize a collaborative approach, flexibility, and adaptability. Agile methodologies help organizations respond quickly to change and stay ahead of the competition. In an agile framework, work is divided into smaller, manageable units called "sprints" or "iterations." Each iteration typically lasts from one to four weeks, during which a small set of features or tasks is developed, tested, and delivered. This frequent delivery of incremental functionality enables teams to respond to changing requirements and priorities more effectively. For instance, Adobe, a software provider, adopted agile methodologies to enhance collaboration, accelerate product development, and deliver updates and new features more frequently (Deshati, 2023). By adopting practices like Scrum (for managing and organizing complex projects, particularly in software development) and Kanban (for visual boards to track the progress of work), Adobe was able to maintain its position as a leading software provider in the face of rapidly changing demands. This transition to agile methodologies enabled Adobe to maintain its position as a leading software provider in the face of rapidly changing demands. Microsoft also shifted towards agile methodologies in its software development, most notably with the adoption of the Scrum framework (Murphy, Bird, Zimmermanna, Williams, Nagappan & Begel, 2013). This change led to more efficient collaboration between development, testing, and design teams. Microsoft's transition to agile practices has resulted in shorter development cycles, increased customer involvement through frequent feedback, and improved product quality. These examples showcase how organizations have successfully adopted agile methodologies to improve their development processes, enhance collaboration, and deliver products that align with and meet customer needs.

14. Collaborative Ecosystems: These are networks of organizations that collaborate to achieve a shared objective. Collaborative ecosystems are becoming increasingly important as organizations realize the value of working together. It helps organizations to share resources, knowledge, and expertise (World Economic Forum, 2023). A growing number of organizations are adopting this innovative approach to enhance user experiences, increase customer retention, improve resource utilization efficiency, accelerate innovation, and enhance market positioning (McKinsay & Company, 2023; Gartner, 2017; Romero & Molina, 2011). For instance, Alibaba, a Chinese multinational conglomerate, has developed a comprehensive collaborative ecosystem centered around e-commerce, digital payments (Alipay), cloud computing (Alibaba Cloud), and other services. By offering a variety of interconnected services, Alibaba has enabled businesses and consumers to access a wide range of resources within a single ecosystem. This integration has facilitated the growth of online businesses, streamlined cross-border trade, and enhanced financial inclusion through digital payments. Apple has created a robust ecosystem that includes hardware such as the iPhone, iPad, and Mac, software like iOS and macOS, services such as Apple Music and iCloud, and third-party app developers. This ecosystem facilitates seamless integration between devices and services, enabling users to effortlessly switch between Apple products and access their data across platforms. This has led to increased customer loyalty, higher sales of complementary products, and a thriving app economy within the Apple App Store. Google's ecosystem revolves around its search engine, software (Android OS, Chrome), cloud services (Google Cloud), and productivity tools (G Suite). Google Drive allows users to store, share, and collaborate on documents in real-time, promoting seamless information sharing and collaboration in this interconnected ecosystem.

15. Sustainability and Corporate Social Responsibility (CSR): Sustainable practices are designed to protect the environment and promote social responsibility. Implementing environmental

management systems, such as ISO 14001, which involves setting objectives, monitoring performance, and continuously improving environmental practices, helps organizations systematically manage and reduce their environmental impact (ISO- International Organization for Standardization, 2004). Obtaining certifications can also verify an organization's commitment to specific sustainability standards. Sustainable practices are becoming increasingly important as organizations realize the need to protect the planet and its resources. According to Chauhan (2023), sustainable practices help organizations reduce their environmental impact, improve their reputation, and increase their bottom line. Transitioning to renewable energy sources, such as solar or wind power, can reduce carbon emissions, lower energy costs over time, and demonstrate a strong commitment to sustainability. More so, minimizing waste through recycling, reusing materials, and adopting circular economy principles, organizations can not only reduce landfill waste but also decrease procurement costs and improve their reputation for responsible resource management. Engaging in philanthropic efforts, supporting community initiatives, and providing transparent reporting on sustainability efforts can enhance an organization's reputation and appeal to consumers who value socially responsible businesses.

In the past decade, there has been a growing emphasis on corporate social responsibility (CSR). Businesses are now expected to be good corporate citizens and engage with their stakeholders in a responsible manner (Schwab, 2008); and the stakeholders are: consumers (looking for more than just a product), employees (after companies with strong values), and shareholders (seeking to invest in business with outstanding corporate reputation (Smith, 2008). These indicate concerns that create economic incentives for companies to prioritize corporate responsibility. CSR encompasses a wide range of activities for organizations such as the implementing adequate corporate governance structures as in having an independent and accountable board of directors; ensuring workplace safety standards to protect the health and well-being of employees; adopting environmentally sustainable procedures to minimize their impact on the environment; and giving back to the community through donations, volunteer work, or other forms of support. Organizations that are seen as being socially responsible are more likely to create a positive firm reputation; and attract customers, investors, and employees; and they are less likely to be the target of protests or boycotts (Aguilera, Rupp, Williams & Ganapathi, 2007; King & McDonnell, 2015). Succinctly, when an organization is committed to ethical and social business practices that go beyond profit generation, it enjoys better reputation in the business environment and a more positive brand image, which can lead to increased customer loyalty, trust, and brand preference. Companies that publish sustainability reports receive more investment funds and provide higher returns to their shareholders compared to competitors who do not publish such reports. Earle (2003) found that companies committed to sustainability are more likely to be innovative and attract and retain top talent. Thus, sustainability commitments often enhance a company's reputation and brand image. Consequently, when a company is genuinely committed to sustainability, it can lead to a range of benefits, including environmental stewardship, cost savings, improved reputation, and increased global access to capital and markets. Groove and Clouse's (2018) study revealed that a significant number of sustainable companies outperformed their industry peers in terms of sustainable performance.

16. Leadership and Talent Development: These are strategic approaches that organizations adopt to cultivate and enhance the skills, capabilities, and potential of their employees, especially those in leadership positions. This practice recognizes the critical importance of effective leadership and a skilled workforce in achieving organizational goals and remaining competitive in today's business environment. Organizations identify employees with leadership potential, critical skills, and talents through assessments, performance evaluations, or talent reviews. Once potential leaders are identified, they are provided with training and education programs that enhance their leadership skills and contribute to the success of the organization (Zeb-Obipi, Nwikiabeh & Kpurunee, 2023). By investing in leadership and talent development, organizations can increase employee satisfaction and retention levels. Employees are more likely to stay with an organization

that values their growth and development (Zeb-Obipi & Kpurunee, 2021). In a study conducted by Green, Felstead, Mayhew and Pack (2000) within a sample of British companies, it was discovered that when training and development initiatives aimed at fostering a sense of mutual identification between the organization and its employees were implemented, the inclination to actively seek alternative employment significantly diminished. A rapidly changing global economy requires leaders of organizations to adopt specific leadership models and skills that are adaptable, forward-thinking, and capable of thriving in uncertainty and complexity. Transformational and Agile leadership models can inspire and motivate teams by setting a compelling vision and demonstrating a commitment to innovation and change (Harb & Sidani, 2019). France, Leahy, and Parsons (2009) opined that well-defined leadership programs, opportunities for mentoring, coaching, professional development, and growth, as well as a culture of continuous learning and improvement, can develop and retain talent in an organization. It is the recognition of the import of leadership in getting the best out of people as human, social and asset beings that informed Zeb-Obipi's (2022) recommendation that: "Everyone and anyone in charge of the affairs of others in an organization should be a People Manager".

Management Science Innovations and Sustenance

In a dynamic and competitive business environment, opportunities and threats arise regularly but they need to be recognized and acted upon quickly. The ability to identify emerging trends, market gaps, and potential avenues for growth is essential for efficient and effective organizational management. Managers with a keen understanding and a strategic mindset are better positioned to capitalize on these opportunities, whether it is expanding into new markets, developing innovative products, or forging strategic partnerships.

Hamel (2008) proposes that a revolutionary transformation in management is likely to result in significant competitive advantages when it: challenges well-established doctrines by being grounded in a management principle; is comprehensive, impacting more than just a few isolated procedures or approaches; and forms a continuous innovation initiative, where advancements accumulate progressively over time. According to Hamel, the top three significant obstacles that confront companies include rapidly expediting the rate at which organizations, both big and small, rejuvenate their strategies; transforming innovation into a collective responsibility ingrained in daily routines; and establishing an immensely captivating work atmosphere that motivates employees to deliver their utmost; and all these, one would say, in the face of a rapidly shifting global economy to attain organizational and national sustenance.

Herein lies the significant roles of Management Science innovations. Innovative management practices or approaches help the business community to become more agile, adaptive, and competitive in a rapidly changing business environment. It helps optimize operations, processes, and resource allocation, enabling organizations to make more informed and data-driven decisions. This leads to better outcomes and reduced risks. It also assists in long-term strategic planning and helps gain a competitive advantage in the business environment. Additionally, it provides valuable insights into customer behaviour, preferences, and trends, allowing organizations to tailor their products and services to meet customer needs (Tseng, Wu, Lim, & Wong, 2019; Bibri, 2021). These, in turn, contribute to sustainability efforts and lead to national sustenance. Lengnick-Hall (1992) and Varma, Bhalotia, and Gambhir (2020) argued that organizations that employ Management Sciences innovations can achieve a competitive advantage by promptly adapting to market changes, meeting customer demands, and keeping up with industry trends.

Several studies have shown that businesses benefit from improving their management practices (Markos, & Sridevi, 2010; Pfeffer, 1995; Koskey, & Sakataka, 2015; Willard, 2012). Some of the benefits include increased productivity, more efficient operations, improved customer satisfaction, more productive and technologically savvy employees, greater agility, and increased employee engagement. In addition, companies that prioritize innovation and continuous improvement tend to

be more adaptable and resilient in the face of market changes and competitive pressures. By fostering a culture of creativity and experimentation, these organizations can stay ahead of the curve and achieve long-term success.

Data-driven decision-making and other innovative management practices can result in more effective and informed decision-making, ultimately leading to improved growth and success. For example, Amazon serves as an excellent example of this, as they use data-driven decision-making to determine which products to stock, pricing strategies, and when to offer discounts (Amazon, 2021). This approach has helped Amazon increase revenue and drive growth. Thus, when organizations leverage on innovative management practices as mentioned in the preceding section, they can experience several positive outcomes and gain competitive advantages.

These innovations enable organizations to navigate complex business environments and create value for society. Consequently, scholars have focused on developing specific innovative strategies for organizations and nations to achieve sustainability. Cantele and Zardini (2018) argue that organizations have started to acknowledge the importance of adopting sustainable practices. Therefore, organizations face the risk of damaging their reputation and market position if they fail to adapt to rapidly changing circumstances and situations (McLennan, 2022).

Conclusion

The global economy is constantly changing, which can create both obstacles and opportunities for organizations and countries. To ensure sustenance and prosperity in this ever-evolving world, it is imperative to adopt innovations in the management of organizations and nation-states. Management Science innovations offer organizations the potential to enhance their operational efficiency, foster innovation, and respond to changing economic, industry, market technological and socio-cultural dynamics with agility. Moreover, they can enable nations to enhance their economic competitiveness on a global scale, fostering sustainable growth and development. Innovations in the Management Sciences are essential for navigating the complexities of the modern global economy. Embracing these innovations can empower organizations and nations to thrive amidst change, fostering a sustainable and prosperous future for all.

It is, however, important to recognize that the successful implementation of Management Science innovations requires a holistic approach. This encompasses not only technological advancements but also a cultural shift towards continuous learning, adaptability, and a focus on sustainability. Effective change management strategies and the development of human capital are equally vital components of this transformation. To thrive in the rapidly changing global economy, organizations and nations must remain proactive and innovative. They should utilize the entire range of Management Science innovations to tackle challenges such as economic volatility, geopolitical uncertainties, and environmental sustainability. By doing so, organizations and nations can ensure their own sustenance and contribute to the broader goal of global sustainability.

References

Amazon (2021). Web services. Retrieved from *https://s2.q4cdn.com/299287126/files/doc_financials/2021/q2/AMZN-Q2-2021-Earnings-Release.pdf*

Arif, F. V. (2021). *The future of work: How AI and blockchain technologies will impact HR and the job market.* The University of Arizona.

Attaran, M., Attaran, S., & Kirkland, D. (2019). The need for digital workplace: Increasing workforce productivity in the information age. *International Journal of Enterprise Information Systems, 15*(1), 1-23.

Attaran, M. (2017). Cloud computing technology: leveraging the power of the internet to improve business performance. *Journal of International Technology & Information Management*, *26*

(1), 112-137.
Bark, J. (2023). What are the benefits of RegTech? Retrieved from from *https://www.highgear.com/blog/benefits-of-regtech/*
Bhakuni, R. S. (2010). Elton Mayo's theory of human relation. *International Journal of Research in Commerce, IT, Engineering & Social Sciences, 4*(7), 9-14.
Bibri, S. E. (2021). A novel model for data-driven smart sustainable cities of the future: the institutional transformations required for balancing and advancing the three goals of sustainability. *Energy Informatics, 4*(4), 1-37.
Cain, C., & Haque, S. (2011). *Organizational workflow and its impact on work quality*. Agency for Healthcare Research & Quality
Cantele, S., & Zardini, A. (2018). Is sustainability a competitive advantage for small businesses? An empirical analysis of possible mediators in the sustainability–financial performance relationship. *Journal of Cleaner Production*, *182*(1) 166-176.
Chammas, A., Quaresma, M., & Mont'Alvão, C. (2015). A closer look on the user centred design. 6th International Conference on Applied Human Factors and Ergonomics. *Procedia Manufacturing*, *3*, 5397-5404.
Chauhan, K. S. (2023). Sustaining our planet: How businesses can reduce environmental impact. Retrieved from *https://timesofindia.indiatimes.com/readersblog/theintersection/sustaining-our-planet-how-businesses-can-reduce-environmental-impact-55077/*
Chen, J., Viardot, E., & Brem, A. (2019). Innovation and innovation management. *The Routledge Companion to Innovation Management*, 3-16.
Chillakuri, B., & Attili, V. P. (2022). Role of blockchain in HR's response to new-normal. *International Journal of Organizational Analysis*, *30*(6), 1359-1378.
Christensen, C., & Raynor, M. (2013). *The innovator's solution: Creating and sustaining successful growth*. Harvard Business Review Press.
Colglazier, W. (2015). Sustainable development agenda: 2030. *Science*, *349*(6252), 1048-1050.
Dembele, F., R. Schwarz and P. Horrocks (2021), Scaling up Green, Social, Sustainability and Sustainability-linked Bond Issuances in Developing Countries, OECD Publishing, Paris.
Demirkan, H., & Delen, D. (2013). Leveraging the capabilities of service-oriented decision support systems: Putting analytics and big data in cloud. *Decision Support Systems*, *55*(1), 412-421.
Deshati, E. (2023). Staying Ahead of the Curve: An Analysis of Strategic Agility and its Role in Ensuring Firm Survival in a Dynamic Business Environment. *European Scientific Journal, 19*(13), 28-48.
Doxee. (2022). Big data in banking: a valuable resource for building more engaging customer experiencing. Retrieve from *https://www.doxee.com/blog/technology/big-data-in-banking/*
Drechsler, W. (2020). Good bureaucracy: Max Weber and public administration today. *Max Weber Studies*, *20*(2), 219-224.
Drehmann, M., Maronoti, B., & O'Connor, A. (2023). Global tightening, banking stress and market resilience in EMEs. *BIS Papers*.
Drucker, P. F. (1954). Management by objectives and self-control. *Practice of Management*, 34-48.
Dunford. R., Su, Q., and Tamang, E. (2014). The Pareto Principle. *The Plymouth Student Scientist, 7*(1), 140-148.
Earle, H. A. (2003). Building a workplace of choice: Using the work environment to attract and retain top talent. *Journal of Facilities Management, 2*(3), 244-257.
Fernandes, E. (2023). Global Robo-Advisor Market Size, Shaping the Future with Forecasted Growth and Trends for 2023-2030. Retrieved from https://www.linkedin.com/pulse/global-robo-advisor-market-size-shaping-future
Forbes. (2023). How to get marketing personalization right with deeper insights. Retrieved from https://www.forbes.com/sites/forbesbusinesscouncil/2022/09/28/how-to-get-marketing-personalization-right-with-deeper-insights/?sh=37b594eb6c04
France, D. R., Leahy, M., & Parsons, M. (2009). Attracting, developing and retaining talent. *Research-Technology Management, 52*(6), 33-44.

Frankenfield, J. (2023). What is a robo-advisor? Retrieved from *https://www.investopedia.com/terms/r/roboadvisor-roboadviser.asp*
Garner. (2017). 8 dimensions of business ecosystems. Retrieved from *https://www.gartner.com/smarterwithgartner/8-dimensions-of-business-ecosystems*
Green, F., Felstead, A., Mayhew, K., and Pack, A. (2000). The Impact of Training on Labour Mobility: Individual and Firm-level Evidence from Britain. *British Journal of Industrial Relations, 38*(2), 261-275.
Grove, H., & Clouse, M. (2018). Focusing on sustainability to strengthen corporate governance. *Corporate Governance & Sustainability Review, 2*(2), 38-47.
Gurung, N., & Perlman, L. (2018). Use of RegTech by Central Banks and its impact on financial inclusion. Retrieved from *https://ssrn.com/abstract=3285985*
Hamel, G. (2008). The future of management. *Human Resource Management International Digest*, *16*(6).
Harb, B., & Sidani, D. (2019). Transformational leadership for organizational change in the Lebanese public sector. *Problems & Perspectives in Management, 17*(2), 205-216.
Heinrichs, H. (2013). Sharing economy: a potential new pathway to sustainability. *GAIA-Ecological Perspectives for Science & Society, 22*(4), 228-231.
Humphrey, A. S. (2005). SWOT analysis. *Long Range Planning*, *30*(1), 46-52.
Investopedia (2022). What is Amazon web services and why is it so successful? Retrieved from *https://www.investopedia.com/articles/investing/011316/what-amazon-web-services-and-why-is-it-so-successful.asp#citation-1*
ISO-International Organization for Standardization. (2004). *Environmental Management Systems-Requirements with Guidance for Use*. ISO-International Organization Standards.
Jaja, S. A., & Zeb-Obipi, I. (2005). *Management: Elements and theories*. Pearl Publisher.
Josyula, V., Orr, M., & Page, G. (2011). *Cloud computing: Automating the virtualized data center*. Cisco Press.
Kaynak, E., & Rogers, R. E. (2013). *Implementation of total quality management: A comprehensive training program*. Routledge.
Kennard, M. (2018). Innovation management. (Youtube video). Retrieved from *https://www.youtube.com/watch?v=fk7HRjLJBfE*
Kim, W. C., & Mauborgne, R. (2014). *Blue ocean strategy, expanded edition: How to create uncontested market space and make the competition irrelevant*. Harvard Business Review Press.
King, B., & McDonnell, M. H. (2015). *Good firms, good targets: The relationship between corporate social responsibility, reputation, and activist targeting*. Cambridge University Press.
Kirchherr, J. (2022). Circular economy and growth: A critical review of "post-growth" circularity and a plea for a circular economy that grows. *Resources, Conservation & Recycling*, *179*, 1-2.
Knauss. (2010). Blue ocean strategy: Making the competition irrelevant. (Youtube Video). Retrieved from *https://www.youtube.com/watch?v=zrGOBdVm-KE*
Koskey, A. K., & Sakataka, W. (2015). Effect of reward on employee engagement and commitment at Rift Valley Bottlers Company. International *Academic Journal of Human Resource & Business Administration, 1*(5), 36-54.
Kpurunee, L. G. (2023). A Theoretical Evaluation of Customer Relationship Management and Organizational Productivity in Deposit Money Banks in Nigeria. *Journal of Research in Business & Management, 11*(1), 1-7.
Lehni, M. WBCSD. (2000). *Ecoefficiency: Creating more value with less impact.* World Business Council for Sustainable Development (WBCSD).
Lengnick-Hall, C. A. (1992). Innovation and competitive advantage: What we know and what we need to learn. *Journal of management*, *18*(2), 399-429.
MacArthur, E. (2013). Towards the circular economy. *Journal of Industrial Ecology*, *2*(1), 23-44.
Madsen, D. Ø., & Slåtten, K. (2017). The rise of HR analytics: A preliminary exploration. In *Global Conference on Business & Finance Proceedings* (Vol. 12, No. 1, pp. 148-159).

Magee, J. F. (1964). *Decision trees for decision making*. Harvard Business Review.
Markos, S., & Sridevi, M. S. (2010). Employee engagement: The key to improving performance. *International Journal of Business & Management, 5*(12), 89.
McKinsey & Company. (2023). Growth and resilience through ecosystem building. Retrieved from *https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/growth-and-resilience-through-ecosystem-building*
Mckinsey Global Institute. (2022). Rekindling US productivity for a new era. Retrieved from https://www.mckinsey.com/mgi/our-research/rekindling-us-productivity-for-a-new-era
McLennan, M. (2022). *The Global Risks Report 2022 17th Edition*. World Economic Forum.
Murphy, B., Bird, C., Zimmermann, T., Williams, L., Nagappan, N., & Begel, A. (2013, October). Have agile techniques been the silver bullet for software development at microsoft?. In *2013 ACM/IEEE international symposium on empirical software engineering and measurement* (pp. 75-84). IEEE.
Niu, Y., Ying, L., Yang, J., Bao, M., & Sivaparthipan, C. B. (2021). Organizational business intelligence and decision making using big data analytics. *Information Processing & Management*, *58*(6), 102725.
Oecd, E. (2005). Oslo manual: Guidelines for collecting and interpreting innovation data. *Paris 2005, Sp*, *46*, 1-34.
Ohmae, K. (2005). The global economy-challenges and opportunities. Management Today, 21(9), 10-12.
Padhy, R. P., Patra, M. R., & Satapathy, S. C. (2011). Cloud computing: security issues and research challenges. *International Journal of Computer Science & Information Technology & Security, 1*(2), 136-146.
Pal, K., & Bansal, H. (2011). Management concepts and organizational behaviour. Retrieved from *https://www.ddegjust.ac.in/studymaterial/mcom/mc-101.pdf*
Pfeffer, J. (1995). Producing sustainable competitive advantage through the effective management of people. *Academy of Management Perspectives, 9*(1), 55-69.
Platanou, K., & Mäkelä, K. (2016). HR function at the crossroads of digital disruption. *Työn*, *1*, 19-26.
Rogers, E. M., Singhal, A., & Quinlan, M. M. (2014). Diffusion of innovations. In *An integrated approach to communication theory and research* (pp. 432-448). Routledge.
Romero, D., & Molina, A. (2011). Collaborative networked organisations and customer communities: value co-creation and co-innovation in the networking era. *Production Planning & Control*, *22*(5-6), 447-472.
Saggi, M. K., & Jain, S. (2018). A survey towards an integration of big data analytics to big insights for value-creation. *Information Processing & Management*, *54*(5), 758-790.
Schaltegger, S., Lüdeke-Freund, F., & Hansen, E. G. (2012). Business cases for sustainability: the role of business model innovation for corporate sustainability. *International Journal of Innovation & Sustainable Development, 6*(2), 95-119.
Schwab, K. (2008). *The global competitiveness report 2008–2009.* World Economic Forum.
Schwab, K. (2008). Global corporate citizenship: Working with governments and civil society. *Foreign Affairs*, 107-118.
Smith, N. C. (2008). *Consumers as drivers of corporate social responsibility*. London Business School.
Spangler, T. (2023, March 20). Innovative management practices: A must read guide for visionary leaders. Retrieved from *https://www.linkedin.com/pulse/innovating-management-practices -must-read-guide-leaders-spangler*
Stawski, S. (2019). *The power of mandate: How visionary leaders keep their organization focused on what matters most*. McGraw Hill Professional.
Sundararajan, A. (2014). Peer-to-peer businesses and the sharing (collaborative) economy: Overview, economic effects and regulatory issues. Written testimony for the hearing titled The Power of Connection: Peer to Peer Businesses, 1-7.
Talha, M. (2004). Total quality management (TQM): An overview. *The bottom line*, *17*(1), 15-19.

Taylor, F. W. (2023). The rise of scientific management. In I. Ajunwa (Eds.), *The quantified worker: Law and technology in the modern workplace*, (pp. 9-22). Cambridge University Press.
Techtrends. (2018). Reengineering technology: Building new IT delivery models from the top down and bottom up. Retrieved from *https://www2.deloitte.com/content/dam/insights/us/articles/Tech-Trends-2018/4109_TechTrends-2018_FINAL.pdf*
Telukdarie, A., Buhulaiga, E., Bag, S., Gupta, S., & Luo, Z. (2018). Industry 4.0 implementation for multinationals. *Process Safety & Environmental Protection*, *118*, 316-329.
Tseng, M. L., Wu, K. J., Lim, M. K., & Wong, W. P. (2019). Data-driven sustainable supply chain management performance: A hierarchical structure assessment under uncertainties. *Journal of Cleaner Production*, *227*(1), 760-771.
United Nations. (2015). Transforming our world: The 2030 Agenda for Sustainable Development. Retrieved from *https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_70_1_E.pdf*
United Nations. (2022). *Investment and climate change.* United Nations Conference on Trade and Development, 13th and 14th. Geneva.
Ünüvar, B. (2019). Financing the green economy. In *Handbook of green economics* (pp. 163-181). Academic Press.
Van Den Heuvel, S., & Bondarouk, T. (2016). The rise (and fall?) of HR analytics: The future application, value, structure, and system support. *Academy of Management Proceedings* (Vol. 2016, No. 1, p. 10908).
Varma, A., Bhalotia, K., & Gambhir, K. (2020). Innovating for competitive advantage: managerial risk-taking ability counterbalances management controls. *Journal of Management & Governance*, *24*(2), 389-409.
Wang, T. W. (2005). From general system theory to total quality management. *Critical Evaluations in Business & Management*, *2*, 443.
Weber, M. (2019). *Economy and society: A new translation*. Harvard University Press.
Willard, B. (2012). *The new sustainability advantage: seven business case benefits of a triple bottom line*. New Society Publishers.
Williams, S. P., & Schubert, P. (2018). Designs for the digital workplace. *Procedia Computer Science*, *138*, 478-485.
World Economic Forum (2023). Competition vs collaboration: Rethinking how businesses innovate and grow. Retrieved from *https://www.weforum.org/agenda/2023/01/competition-vs-collaboration-ey-innovation-wef23/*
Zeb-Obipi, I., & Kpurunee, G. L. (2023). Creating digital workplace in Nigeria: A focus on HRMetaverse. *Management & Human Resource Research Journal, 12*(7), 1-8.
Zeb-Obipi, I. (2022). *People management tripod and worker productivity performance: The solute, solvent and solution*. Inaugural Lecture Series No. 79, Rivers State University.
Zeb-Obipi, I., & Kpurunee, G. L. (2021). On the job training and employee commitment. *International Journal of Business & Management, 9*(5), 119-126.
Zeb-Obipi, I., Nwikiabeh, L. B. M. & Kpurunee, G. L. (2023). Boss-driven development and employee commitment in telecommunication firms in Nigeria. *British Journal of Management & Marketing Studies, 6*(3), 138-152.
Zopf, R., Giabbiconi, C. M., Gruber, T., & Müller, M. M. (2004). Attentional modulation of the human somatosensory evoked potential in a trial-by-trial spatial cueing and sustained spatial attention task measured with high density 128 channels EEG. *Cognitive Brain Research*, *20*(3), 491-509.
Zulkarnain, N., & Anshari, M. (2016, November). Big data: Concept, applications, & challenges. In *2016 International Conference on Information Management and Technology,* (pp. 307-310). Institute of Electrical & Electronics Engineers.
Zur Muehlen, M. (2004). Organizational management in workflow applications–issues and perspectives. *Information Technology & Management*, *5*, 271-291.

Concept Notes on the Theme of the 4th International Conference by Matthew Egbochie PhD, Professor of Innovations, Entrepreneurship & Information Systems Management

The global economy is constantly evolving and experiencing rapid shifts driven by various factors such as technological advancements, globalization, geopolitical changes, and socio-economic trends. Here are some key aspects of the rapidly shifting global economy:

1. Technological Disruption: Technological advancements, particularly in areas like artificial intelligence, automation, robotics, and digitalization, are reshaping industries and business models. Companies that fail to adapt to these changes risk becoming obsolete, while those that embrace technology can gain a competitive edge.

2. Digital Transformation: The proliferation of digital technologies has transformed the way businesses operate. E-commerce, online platforms, and digital services have disrupted traditional brick-and-mortar businesses. Organizations need to adapt by investing in digital capabilities, improving their online presence, and leveraging data analytics to gain insights and drive innovation.

3. Rise of Emerging Markets: Emerging economies, particularly in Asia, Latin America, and Africa, are becoming major players in the global economy. These markets offer significant growth opportunities for businesses and are attracting investment from multinational corporations. Organizations need to understand the unique characteristics of these markets and develop tailored strategies to tap into their potential.

4. Trade and Protectionism: Globalization has led to increased interconnectedness and trade between countries. However, in recent years, there has been a rise in protectionist measures and trade tensions between major economies. Trade policies and agreements are constantly evolving, impacting supply chains, market access, and international business operations.

5. Sustainable and Responsible Business Practices: There is growing recognition of the need for sustainable and responsible business practices. Consumers, investors, and governments are increasingly demanding companies to address environmental and social issues. Organizations that adopt sustainable practices, incorporate environmental, social, and governance (ESG) considerations, and demonstrate corporate social responsibility (CSR) are more likely to thrive in the evolving global economy.

6. Workforce Transformation: The shifting global economy is also reshaping the nature of work. Automation and AI technologies are automating routine tasks, while creating new opportunities for skilled workers. Organizations need to adapt to this changing landscape by upskilling their workforce, fostering a culture of lifelong learning, and embracing flexible work arrangements.

7. Geopolitical Dynamics: Geopolitical factors, such as changes in government policies, international conflicts, and regional alliances, can significantly impact the global economy. Trade wars, sanctions, and political instability can disrupt supply chains, affect market conditions, and create uncertainties for businesses operating in global markets.

8. Financial Market Volatility: Financial markets play a critical role in the global economy. Volatility in stock markets, fluctuations in exchange rates, and changes in interest rates can have far-reaching effects on businesses and investment decisions. Organizations need to closely monitor financial trends and manage risks associated with currency fluctuations, interest rate changes, and capital flows.

9. Changing Consumer Behavior: Consumer behavior is continuously evolving, influenced by factors such as demographic shifts, evolving preferences, and changing lifestyles. Organizations must stay attuned to these changes, adopt customer-centric approaches, and leverage data analytics to understand consumer needs and preferences.

10. Collaboration and Innovation: In the rapidly shifting global economy, collaboration and innovation are crucial for success. Organizations need to foster partnerships, engage in open innovation, and embrace agile and adaptable strategies to respond to market disruptions, capitalize on emerging opportunities, and drive sustainable growth.

To navigate the rapidly shifting global economy, organizations need to be agile, adaptable, and forward-thinking. They must embrace emerging technologies, invest in talent development, foster innovation, and embrace sustainability practices

Management Science, also known as Operations Research, is a field that applies mathematical modeling, statistical analysis, and optimization techniques to solve complex organizational problems. To contribute to organizational and national sustenance, here are some Management Science innovations that can be implemented:

1. Supply Chain Optimization: Efficient supply chain management is crucial for organizational and national sustenance. Management Science techniques can be used to optimize inventory management, distribution networks, and transportation logistics. This can lead to reduced costs, improved delivery times, and better overall supply chain performance.

2. Decision Analysis and Risk Management: Decision-making in organizations and national policies often involves dealing with uncertainty and risk. Management Science provides tools and methodologies for decision analysis and risk management, such as decision trees, Monte Carlo simulation, and scenario analysis. These techniques help in evaluating different alternatives, quantifying risks, and making informed decisions.

3. Performance Measurement and Analytics: Management Science can contribute to organizational and national sustenance by providing effective performance measurement systems and analytics. Key Performance Indicators (KPIs), balanced scorecards, and data analytics techniques enable organizations and governments to monitor and evaluate performance, identify areas for improvement, and make data-driven decisions.

4. Project Management and Scheduling: Effective project management is essential for the successful execution of organizational initiatives and national development projects. Management Science techniques, such as critical path analysis, resource allocation optimization, and project scheduling algorithms, can help in planning, scheduling, and managing projects more efficiently.

5. Revenue Management and Pricing Optimization: For organizations, optimizing revenue and pricing strategies can significantly impact profitability and sustainability. Management Science offers revenue management techniques, such as dynamic pricing, demand forecasting, and capacity optimization, to maximize revenue and utilization of resources.

6. Sustainable Operations: Environmental sustainability is a growing concern for organizations and nations. Management Science can contribute by developing models and optimization algorithms for sustainable operations, including green supply chain management, energy-efficient production processes, and waste reduction strategies.

7. Artificial Intelligence and Machine Learning: The integration of artificial intelligence (AI) and machine learning (ML) techniques with Management Science can enhance decision-making and optimization capabilities. AI and ML algorithms can analyze large datasets, identify patterns, and generate insights that support better planning, forecasting, and resource allocation.

8. Social Network Analysis: Understanding the social dynamics within organizations and nations can help in improving collaboration, knowledge sharing, and innovation. Management Science techniques, such as social network analysis, can map and analyze social relationships, identify influential individuals, and enhance communication and collaboration networks.

9. Lean Management and Continuous Improvement: Lean management principles focus on eliminating waste, improving efficiency, and continuously improving processes. Management Science tools, such as Lean Six Sigma methodologies and process optimization techniques, can be applied to identify and eliminate bottlenecks, reduce defects, and enhance overall operational performance.

10. Policy Modeling and Simulation: For national sustenance, policy modeling and simulation can be valuable. Management Science can contribute by developing models and simulations to evaluate the potential impact of different policies, regulations, and interventions in areas such as healthcare, transportation, energy, and economic development.

In summary, implementing these Management Science innovations can support organizational and national sustenance in a global economy that is marked by disruptive change.

Track 1:

Accountancy/Banking and Finance

Asymmetric Return-Volatility Relationship in the Nigerian Stock Market: The Case of the new CBN Currency Redesign Policy

Chukwunenye N. Kocha
chukwunenye.kocha@ust.edu.ng
Department of Banking & Finance
Rivers State University Port Harcourt.

Nnaji Kennady Kelechi
Happuch Education Centre & Research
nnajiken@outlook.com

Abstract

This study employs the Zakoian's TGARCH model with generalized error distribution to examine the impact of the CBN's currency redesign policy on the asymmetric return-volatility in the Nigerian stock market. The data used consist of daily closing prices of seven major indices: namely, All Share Index, NSE 30 Index, Banking Index, Consumer Goods Index (Food, Beverage, Tobacco), Oil and Gas Index, Insurance Index, and Corporate Governance Rating System Index, for the period from 21/10/2013 to 12/05/2023. The effect of currency redesign policy is captured through a dummy variable whose value is 1 for periods when the new policy is effective, and zero for earlier periods. Although, there is a specification issue in the mean equation for three indices: namely, ASI, NSE 30, and Consumer Goods, our finding show that the currency redesign policy is generally favourable to investors in the Nigerian stock market as it tends to increase the mean returns of the major indices while decreasing their volatility.

Introduction

The mechanism through which monetary policy affects the real economy remains one of the most contentious issues in economic and finance literature. However, one of the main transmission channels that have emerged from literature is the stock market. In theory, the stock market plays a significant role in the transmission process of monetary policy as stock prices contain valuable information about the future course of prices and output (Borio, et al., 1994). Also, expansionary monetary policy, which increases money supply usually through a reduction in interest rate, causes a bullish trend in the stock market, and thereby leads to increase in real economic variables such as investment, employment, and economic growth. This implies that monetary policy shocks affect real economic variables indirectly through the stock market. Hence, understanding the extent of the relationship between monetary policy shocks and stock market performance is highly significant to gain better insight in the monetary policy transmission process.

On November 23, 2022, the Central Bank of Nigeria (henceforth CBN), in performing its monetary policy function, officially launched its currency redesign policy, which is primarily aimed at improving the currency in circulation for effective implementation of monetary policy in Nigeria. The new policy, which focuses on the three large denominations: namely, ₦200, ₦500, and ₦1000, is an official response to several identified issues impeding the effectiveness of monetary policy in Nigeria such as currency hoarding, shortage of clean and fit bank notes, as well as the increasing rate of currency counterfeiting in the country (Edet et al., 2023; Muhammed & Abdulmajeed, 2022). In terms of its benefits, the argument presented by the Apex bank is that the redesign policy would among other things strengthen the Nigerian economy as it would reduce the rising cost of cash management, promote financial inclusion, and enhance the CBN's control of money supply (Edet et al., 2023). Hence, the new policy is expected to reduce inflationary pressure in the economy, stimulate investment in the real sector, and facilitate inclusive economic growth.

However, despite the CBN assurances, available data suggest that the new monetary policy may have caused more harm than good in the national economy. For example, data obtained from the Nigerian Bureau of Statistics (NBS) show that the growth rate in nominal GDP declined by approximately 15% from 15.32% in 2022Q4 to 13.07% in 2023Q1, while the growth rate in real GDP declined by approximately 34% from 3.52% in 2022Q4 to 2.31% in 2023Q4. It may simply be the case that the new currency redesign policy of the CBN significantly alters real economic activities through the stock market since the stock market channel of monetary policy is well established in the literature. Hence, analyzing the effect of the CBN currency redesign policy on stock market returns and volatility would help clarify the extent to which monetary policy decisions influence the real economy through the stock market.

This study seeks to determine the extent to which the CBN's currency redesign policy affects real economic activities through the stock market within the GARCH framework. More specifically, the study employs the Zakoian's TGARCH model with generalized error distribution to examine the impact of the newly introduced policy on seven major indices (All Share Index, NSE 30, Banking Index, Consumer Goods Index, Oil and Gas Index, Insurance Index, and Corporate Governance Rating System Index) of the Nigerian stock exchange. The study constructs a redesign dummy and incorporate it into both the mean and variance equations of the specified TGARCH model which allows us to examine the relative impact of the new policy on the asymmetric return-volatility relationship in the Nigerian stock market.

This study can be compared with two strands of literature. The first comprises studies that investigate the return-volatility within the GARCH framework. While there is a scanty but growing literature in this line of scientific inquiry in the Nigeria context, this study is the most recent and comprehensive in that it uses up-to-date data and focuses on almost all the sectors of the Nigerian economy. The second strand of literature comprises studies that have attempted to examine the newly introduced currency redesign policy of the CBN and its impact on the Nigerian economy. The paucity of literature in this area of research is well understood since the currency redesign policy is a new phenomenon. However, this study is distinct in that it is, to our knowledge, the first to analyze the stock market reaction of the new monetary policy within the GARCH framework.

The remainder of this study has four main sections. The next section contains the review of previous studies on the impact of monetary policy shocks on stock market returns and volatility. This is followed by the methodology section which describes the data, the variables, the model, and the method. The fourth section contains the empirical analysis and results of the relationship between the new currency redesign policy and stock market returns and volatility. The study is concluded in the fifth section.

Literature Review

There is a vast literature that examines the stock market channel of monetary policy transmission mechanism. However, there is a scanty recent literature that considers the extent to which stock markets react to monetary policy actions and innovations, especially from the perspective of emerging economies such as Nigeria. Studies that reported evidence supporting the existence of the stock market channel include, but not limited to, Bomfim (2003), Bui (2015), Adeniji et al. (2018), Marozva (2020), and Wen et al. (2022), and Gorodnichenko et al. (2023). For example, Bomfim (2003) investigates the effects of both pre-announcement and actual monetary policy decisions on the US stock market volatility using daily data from June 1989 to December 1998.

Using a GARCH-type model, it is found that the conditional volatility is unusually low but statistically significant on pre-announcement days of monetary policy. It is also found that the surprise element of actual interest rate decision significantly increase stock market volatility, and that positive surprises tend to exert larger effect on market volatility than negative surprises. Similar finding is reported in a more recent study by Mathur and Sengupta (2019) using Indian monetary policy communication data. They find that lengthier and less readable monetary policy statements are associated with both higher trading volumes and higher stock market volatility, although this communication effect lacks persistence.

Gospodinov and Jamali (2015) investigate the dynamic impact of monetary policy shocks on stock market volatility using a vector autoregressive model. Their findings show that monetary policy shocks significantly affect stock market volatility.

our findings reveal a significant and asymmetric response of stock returns and volatility to monetary policy shocks. Although the increase in the volatility risk premium, futures-trading volume, and leverage appear to contribute to a short-term increase in volatility, the longer-term dynamics of volatility are dominated by monetary policy's effect on fundamentals. The estimation results from a bivariate VAR-GARCH model suggest that the Fed does not respond to the stock market at a high frequency, but they also suggest that market participants' uncertainty regarding the monetary stance affects stock market volatility.

Bui (2015) investigates the asymmetric effect of monetary policy shock on stock returns volatility for five ASEAN countries: namely, Thailand, Malaysia, Indonesia, Vietnam, and Philippines, using monthly data 2006M01 to 2013M06. Using the Markov switching model and the GLS method, it is found that the relationship between monetary policy and stock market volatility exhibits significant asymmetric effects. More specifically, the study finds that monetary policy is more effective in the bear market than the bull market, and that restrictive monetary policy increases the probability of moving the market from a bullish trend to a bearish trend.

Balcilar et al. (2020) employs a smooth transition vector autoregressive model to explore the reactions of the US financial markets to unconventional monetary policy using daily data covering from 29/12/1996 to 12/11/2018. The reported finding shows that the announcement of quantitative easing changes the financial market risk structure.

In South Africa, Marozva (2020) employ both OLS and GARCH models to investigate the extent to which monetary policy affects stock market returns and volatility using interest rate and exchange rate as proxies. The study is based on time series data observed at monthly frequency from 1995 to 2019. Their empirical evidence shows that both interest rate and exchange rate dimensions of monetary policy affects stock returns in a statistically significant way. However, stock market volatility responds only to interest rate shocks.

Using the quantile-on-quantile regression framework, Wen et al. (2022) analyze the heterogeneous and the asymmetric response of stock returns to monetary policy uncertainty for BRICS countries and a group of seven developed or G7 countries. Their empirical evidence establishes that both heterogeneity and asymmetry characterize the effect of monetary policy uncertainty on stock market returns across the developed and BRICS countries. However, the study also reveals the tendency for stock market responses to the US monetary policy uncertainty to be more volatile in the developed countries than in the BRICS countries.

Gorodnichenko et al. (2023) examine the effects on financial markets of emotions embedded in the US monetary policy announcements. They find, among other things, that monetary policy communication tones have a significant impact on stock prices.

In Nigeria, Adeniji et al. (2018) employ the ARDL and EGARCH frameworks to examine the reaction of stock prices to monetary policy innovations using monthly data from 1999M06 to 2016M12, they find that monetary policy innovations, proxied by changes in interest rate and money supply (both M1 and M2), have a strong positive effect on the volatility of All share index. However, the effect of interest is more pronounced and extends over the long run.

Methodology

The data used for this study consist of daily 2368 daily prices of seven major stock indices from 21/10/2013 to 12/05/2023. The data are sourced from the Nigerian stock exchange via www.ngxgroup.com as well as www.investing.com. The description of these market indices are presented in Table 1.

Table 1: Major Indices in the Nigerian stock exchange

S/no	Name	Code	Description
1	All Share Index	ASI	The All-Share Index tracks the general market performance and includes all listed companies on Nigerian Exchange.
2	Nse 30 Index	NSE-30	A price index that tracks the performance of the top 30 firms (fully paid-up shares) in terms of market capitalization and liquidity.
3	Banking Index	BANK	An investable benchmark index based on capitalization methodology that tracks the performance of the most capitalized and liquid firms in the industrial sector.
4	Consumer Goods Index (Food, Beverage and Tobacco)	FBT	An investable benchmark index weighted by market capitalization that tracks the performance of the consumer goods sector, and comprises the most capitalized and liquid food, beverage, and tobacco companies.
5	Oil And Gas Index	OGAS	An investable benchmark index based on capitalization for the performance of the most capitalized and liquid firms in oil and gas marketing.
6	Insurance Index	INS	An investable benchmark index, weighted by capitalization, that captures the performance of the insurance sector, comprising the most capitalized and liquid insurance companies.
7	Corporate Governance Rating System Index	CGRS	A capitalization-weighted and free float adjusted index that tracks the performance of all companies rated under the corporate governance rating system of the Nigerian Exchange.

Table 1 presents some summary statistics that describe the basic distributional properties of our return data. The statistics presented are mean, maximum, minimum, standard deviation, coefficient of variation, skewness, kurtosis, and Jarque-Bera p-value. As this Table shows, it appears that the Nigerian stock market generally record a low performance over the period under investigation, with the mean return for different indices ranging between approximately -0.02% to approximately 0.04%. However, while the Oil and gas index has the highest mean return at 0.035%, the Consumer Goods index has the lowest mean return at -0.015%. The mean return for ASI, Insurance Index, Corporate Governance Rating System Index, Banking Index, and NSE 30 are respectively 0.014%, 0.014%, 0.009%, 0.005%, and 0.003%. In terms of volatility, Oil and Gas, Banking, and Consumer Goods have the highest standard deviation, while ASI, NSE 30, Insurance, and Corporate Governance rating System Indices have the lowest standard deviation. Further, as shown by the kurtosis coefficient, although all the indices have skewed and fat-tailed distribution, the large excess kurtosis that characterizes oil and gas index is particularly striking. The non-normality of the data is confirmed by the Jarque Bera statistic, which is highly significant in all cases.

From Figure 2, there is clear indication that all the indices exhibit volatility clustering, which suggests that information that drive prices in the Nigerian stock market arrive in a serially correlated way rather than being evenly spaced over time. However, for the oil and gas index, the sudden jump (outlier) that characterizes the return data is substantial, and hence is expected to alter the data generating process for conditional volatility.

Table 1: Summary Statistics

Series	Obs.	$\bar{x}$	Max	Min	σ	Skew	Kurt	JB(p-value)
Full Sample: 21/10/2013 – 12/05/2023								
RTN_ASI	2367	0.014	7.985	-5.033	0.988	0.35	8.82	0.0000
RTN_NSE30	2367	0.003	8.424	-5.698	1.021	0.38	8.93	0.0000
RTN_BANK	2367	0.005	8.508	-13.390	1.653	-0.23	9.16	0.0000
RTN_FBT	2367	-0.015	6.991	-6.171	1.226	0.26	7.73	0.0000
RTN_OGAS	2367	0.039	214.336	-214.659	6.624	-0.01	934.02	0.0000
RTN_INS	2367	0.014	6.104	-8.260	1.114	-0.12	7.12	0.0000
RTN_CGRS	1085	0.009	6.365	-9.083	1.173	-0.43	11.92	0.0000

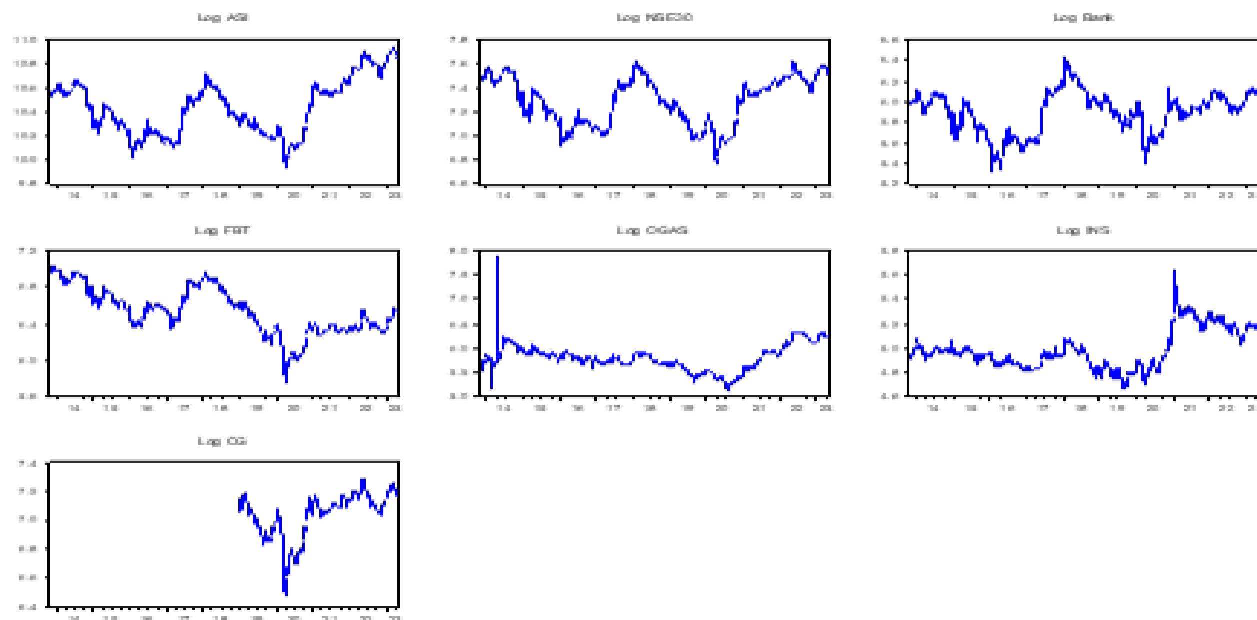


Fig. 1: Log Daily Prices for Nigerian Stock Market Indices

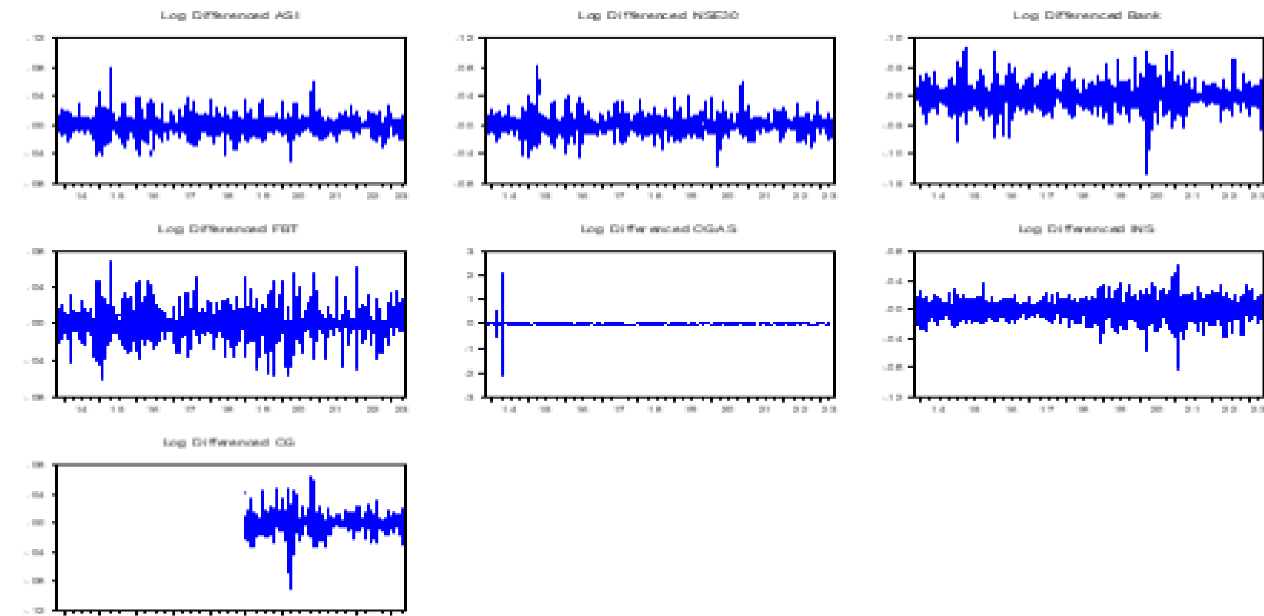


Fig. 1: Daily Returns for Nigerian Stock Market Indices

Variables and Measurement

Stock Return: We compute the continuously compounded return by taking the log difference of stock prices as follows:

$$R_t = \text{dlog(Price)} = \text{Ln}\left(\frac{P_t}{P_{t-1}}\right) \times 100 \qquad (1)$$

Where:

Ln = Natural logarithm

R_t = continuously compounded return at period t

P_t = stock price at period t

P_{t-1} = stock price at period $t-1$

Stock Volatility: We measure volatility using the conditional variance approach suggested by Engle (1982). This approach defines volatility in terms of the previous value of the squared error term from a typical OLS regression as follows:

$$R_t = \phi + \psi R_{t-1} + \epsilon_t \qquad (2)$$

$$\sigma_t^2 = \theta + \alpha\epsilon_{t-1}^2 \qquad (3)$$

Where:

R_t = mean return

ϕ = regression intercept

ψ = coefficient on one period lagged return

ϵ_t = error time with heteroskedastic variance

Currency Redesign Policy (CRD): This is measured in terms of dummy variable, which takes the value of 1 for periods from 23/11/2022 to 12/05/2023 when the currency redesign policy is effective, and zero for other periods.

Model Specification

To analyze the impact of currency redesign policy on stock market returns and volatility, we employ the Zakoian's TGARCH model with generalized error distribution. Following Engle et al. (1987), we specify the mean and variance equations of a simple TGARCH model as follows:

$$R_t = \phi + \psi R_{t-1} + \lambda\sigma_t + \delta CRD + \epsilon_t \quad (4)$$

$$\sigma_t^2 = \theta + \alpha\epsilon_{t-1}^2 + \gamma . d_{t-1}\epsilon_{t-1}^2 + \beta\sigma_{t-1}^2 + \delta CRD \quad (5)$$

where $d_{t-1} = 1$ if $\epsilon_{t-1} < 0$, or zero otherwise

For the mean equation at (4), ψ represents the effect of lagged return on current return, λ captures the effect of conditional standard deviation on current return, and δ captures the effect of currency redesign policy on return, and ϵ_t is the error term.

For the variance equation at (5), α is the ARCH parameter, $\gamma =$ asymmetric parameter, β is the GARCH parameter, and δ captures the effect of currency redesign policy on stock volatility. Also, there is good news with an impact of α if $\epsilon_{t-1} > 0$, and bad news with an impact of $\alpha + \gamma$ if $\epsilon_{t-1} < 0$. This implies that the impact of bad news on conditional variance is greater than the impact of good news of equal magnitude. Hence volatility exhibits asymmetric effect if $\gamma \neq 0$, and leverage effect if $\gamma > 0.$ Further, $\alpha + \beta$ controls volatility persistence, such that volatility is mean reverting if $\alpha + \beta < 0$, while it persists indefinitely and can be described as an integrated GARCH process if $\alpha + \beta = 1$.

The persistence parameter can also be used to measure Half-Life Volatility (HLV), defined as the number of days it takes volatility to return halfway to its original point after suffering a shock. HLV is computed as follows:

$$HLV = \frac{ln(0.5)}{\ln(\alpha + \beta)} \quad (6)$$

The closer is $\alpha + \beta$ to unity, the longer the half-life volatility (Engle & Patton, 2001; Zivot, 2008).

Method and Distributional Assumption

To account for the large excess kurtosis associated with our return data, we assume that ϵ_t follows

the Generalized Error Distribution (GED). Since GARCH models are typically estimated within the maximum likelihood framework, we specify the log-likelihood function for the GED as follows:

$$l_t = -\frac{1}{2}\log\left(\frac{\Gamma\left(\frac{1}{r}\right)^3}{\Gamma\left(\frac{3}{r}\right)\left(\frac{r}{2}\right)^2}\right) - \frac{1}{2}\log\sigma_t^2 - \left(\frac{\Gamma\left(\frac{3}{r}\right)(y_t - X_t'\theta)^2}{\sigma_t^2\Gamma\left(\frac{1}{r}\right)}\right)^{\frac{r}{2}} \quad (7)$$

Where r is the GED tail parameter, which would be less than 2 if the conditional error distribution is fat-tailed (EViews, 2010).

Data Analysis

Test of ARCH Effects

Our test equation is an ARMA(1,2) process, which allows current stock returns to depend linearly on its own previous value and both the current and two lagged values of the error term.

Table 2: ARCH Effect Test

Series	P-value	ARCH Effect
RTN_ASI	194.33 (0.0000)	Yes
RTN_NSE30	220.45 (0.0000)	Yes
RTN_BANK	499.87 (0.0000)	Yes
RTN_FBT	159.68 (0.0000)	Yes
RTN_OGAS	56.48 (0.0161)	Yes
RTN_INS	446.02 (0.0000)	Yes
RTN_CGRS	293.09 (0.0000)	Yes

GARCH Estimation and Analysis

Table 3 reports the estimated TGARCH model for different indices of the Nigerian stock market. For all fitted models, we assume that the conditional errors follow a generalized error distribution. This assumption is in line with our finding in the preliminary analysis that, for all indices, the statistical distribution of the return data is characterized by large leptokurtosis or fat tail. Panel A presents the model diagnostic tests - we use different lag orders for different indices for both serial correlation Q and ARCH LM tests. Also, Panel B contains the results for the mean equation while Panel C contains the results for the variance equation.

Table 3: TGARCH Estimation Results for Generalized Error Distribution

Parameter	R_ASI	R_NSE30	R_BANK	R_FBT	R_OGAS	R_INS	R_CGRS
PANEL A: MODEL DIAGNOSTICS							
Lag Order	1	1	22	1	1	15	1
r	0.9346 (0.0000)	1.0188 (0.0000)	1.1284 (0.0000)	0.7484 (0.0000)	0.2984 (0.0000)	1.3950 (0.0000)	0.9081 (0.0000
Q	20.064 (0.0000)	9.5362 (0.0020)	29.721 (0.1250)	16.242 (0.0000)	1.6370 (0.2010)	10.392 (0.7940)	1.9275 (0.1650
LM	1.2665 (0.2604)	0.8499 (0.3566)	10.874 (0.9765)	0.5157 (0.4727)	0.0198 (0.8880)	20.850 (0.1417)	0.4889 (0.4844
PANEL B: MEAN EQUATION							
ϕ	-0.0007 (0.0241)	-0.0003 (0.4147)	-0.0014 (0.0310)	0.0001 (0.7184)	0.0332 (0.0000)	-0.0002 (0.6882)	-0.0004 (0.2967
ψR_{t-1}	0.1307 (0.0000)	0.2065 (0.0000)	0.1610 (0.0000)	0.1080 (0.0000)	0.0872 (0.0000)	0.0263 (0.2063)	0.1967 (0.0000
$\lambda\sigma$	0.0750 (0.1008)	0.0121 (0.8020)	0.0871 (0.1021)	-0.0189 (0.5507)	-0.5787 (0.0000)	0.0302 (0.6811)	0.0118 (0.8338
CRD	0.0012 (0.0012)	0.0010 (0.0131)	0.0013 (0.1340)	-0.0001 (0.5647)	-0.0267 (0.0000)	0.0017 (0.0407)	0.0008 (0.0895
PANEL C: VARIANCE EQUATION							
θ	9.86E-06 (0.0000)	8.31E-06 (0.0000)	1.75E-05 (0.0000)	2.39E-05 (0.0000)	0.0035 (0.0000)	2.55E-06 (0.0014)	7.08E-06 (0.0013)
α	0.3244 (0.0000)	0.2831 (0.0000)	0.2300 (0.0000)	0.3747 (0.0000)	0.1976 (0.0000)	0.1196 (0.0000)	0.2408 (0.0001
γ	-0.0375 (0.5538)	0.0170 (0.7739)	0.0337 (0.4780)	-0.1477 (0.0552)	-0.1916 (0.0000)	-0.0339 (0.0779)	-0.0027 (0.9693
β	0.6291 (0.0000)	0.6612 (0.0000)	0.7031 (0.0000)	0.6051 (0.0000)	-0.0162 (0.0000)	0.8820 (0.0000)	0.7244 (0.0000
CRD	-4.52E-06 (0.0144)	-3.91E-06 (0.0161)	-4.05E-07 (0.9359)	-1.63E-05 (0.0000)	-0.0034 (0.0000)	2.76E-07 (0.8581)	-6.27E-07 (0.8172)
$\alpha+\beta$	0.9535	0.9443	0.9331	0.9798	0.1814	1.0016	0.9652
HLV	14.557	12.094	10.010	33.966	0.4060	-	19.569

From Panel A of Table 4.3, we can see that the GED tail parameter, r, is less than 2 and it is highly significant in all cases, and hence validating our modeling assumption that the conditional error distribution is fat tailed. Further, the Q-statistic is not significant for banking, oil and gas, insurance, and corporate governance rating system indices, showing that the mean equation for these indices is correctly specified. On the contrary, the highly significant Q-statistic shows that the mean equation for ASI, NSE 30, and food and beverages indices is plagued by serial correlation. However, the LM statistic is not significant in all cases, which is what one would expect if no ARCH or heteroskedasticity is remaining in the standardized residuals. Hence, for all indices, there is no specification error in the estimated variance equation.

From Panel B of Table 3, we can see that ψR_{t-1}, which represents return persistence in the mean equation, is highly significant for almost all the indices, except for the insurance index. This suggests that investors' daily returns exhibit a feedback effect, and hence can be predicted based on their immediate history. The positive coefficients show that overall, a positive return tends to be followed by a positive return in the Nigerian stock market. However, there is no evidence of a feedback effect for the insurance index as the estimated persistent coefficient is not statistically significant, notwithstanding its positive sign.

Also, it appears that volatility does not significantly affect investors return in the Nigerian stock market, with λ, which captures the effect of conditional standard deviation in the mean equation, being statistically insignificant for almost all the indices, except for oil and gas index. This implies that generally, risk-premium, or GARCH-in-mean effect is not present in the Nigerian stock market. In other words, investors tracking most of the market indices are not rewarded, through higher return, for taking additional risk. However, for the oil and gas index, the negative and highly significant GARCH (conditional standard deviation) coefficient indicates that an increased risk, given by an increase in volatility, is associated with a significant decrease in mean return. This may also imply strong evidence of leverage effect which can be explained by the tendency for investors tracking the oil and gas index to incorporate changes in debt-to-equity ratio of the individual firms in their risk pricing model. Hence, while volatility significantly drives investors' return in the oil and gas sector, it does not in the other important sectors (indices) of the Nigerian exchange (such as banking, food and beverages, insurance, and corporate governance rating system), as well as the entire stock market (All share index and NSE 30 index).

From Panel C of Table 4.3, we can see that both α and β coefficients are highly statistically significant for all the indices, which is what one would expect if the Nigerian stock market exhibits ARCH and GARCH effects. However, while the ARCH parameter has the expected positive sign in all cases, the GARCH parameter is positive for almost all the indices with the exemption of oil and gas index. For oil and gas index, current conditional variance is a negative function of previous conditional variance. This is expected given the large outlier that characterize the oil and gas index returns as reported previously in the descriptive section. Also, oil and gas index is an exemption in terms of the degree of volatility persistence, with the persistence parameter, $\alpha+\beta$, being very close to 1 for other indices but very close to zero for oil and gas index. This suggests that volatility has a very short memory in oil and gas sector while it is highly persistent in other sectors. Howev-

er, it appears that volatility persistence is indefinite for insurance index, with an estimated persistence parameter of 1.0016. Hence, the insurance sector volatility can best be described or represented by an integrated GARCH process or IGARCH model. Further, the half-life volatility (HLV) estimates indicate that volatility persistence is highest for food and beverages index, followed by corporate governance rating system index, and then by All share index and NSE 30 index, while for oil and gas index, volatility reverts to its original point in less than 1 day.

Further, the asymmetric coefficient, $\gamma,$ is not significant in most cases, except for three indices: namely, oil and gas, insurance, and food and beverages indices. While the overall picture is that there is no asymmetric response of volatility to positive and negative shocks in the Nigerian stock market, the case is different for the exempted indices. For these indices, the asymmetric coefficient is negative and statistically significant but at varying levels, hence, a positive shock to the market will likely cause volatility to increase more than a negative shock of equal magnitude.

Effect of Currency Redesign on Stock Market Returns and Volatility

Turning to the effects of monetary policy shocks on stock market return and volatility, which, of course, is the main concern of this study, the sign and significance of the estimated *CRD* coefficient in both the mean and variance equations is of interest. For the mean equation, the most striking feature of the results is that this coefficient is positive and significant in most cases, indicating an overall positive effect on the stock market of the new currency redesign policy. However, the scenario is different for three indices: namely, banking, food and beverages and oil and gas indices. For both banking and food and beverages indices, the redesign dummy is not statistically significant, indicating the redesign policy has no significant effect on investors tracking both indices. On the contrary, the coefficient on the dummy variable is negative and highly statistically significant for oil and gas index, showing that the new currency redesign policy is not favourable to investors in the oil and gas sector as it reduces their mean returns.

For the variance equation, the *CRD* coefficient is estimated with a negative sign for almost all the indices, except for insurance index, whose CRD coefficient is estimated with a positive sign. This shows that the currency redesign policy generally tends to cause volatility to fall in the Nigerian stock market. However, the CRD coefficient is significant only for four indices: namely, ASI, NSE 30, Food and Beverage, and Oil and Gas. Hence, while the new monetary policy action tends to increase the volatility of the insurance index, it reduces the volatility of other indices.

Conclusion

This study employs the Zakoian' TGARCH framework with generalized error distribution to investigate the impact of the CBN new currency redesign policy on the asymmetric return-volatility relationship in the Nigerian stock market using daily data on seven major indices for the period from 21/10/2013 to 12/05/2023. The indices are All Share Index, NSE 30 Index, Banking Index, Consumer Goods Index (Food, Beverage, Tobacco), Oil and Gas Index, Insurance Index, and Corporate Governance Rating System Index.

Consistent with most previous studies, we find that both return and volatility of most stock indices in the Nigerian stock market exhibit high persistence. However, in terms of volatility persistence, oil and gas index is found to be an exemption, with its half-life volatility being less than a day. The top four indices in terms of half-life volatility are consumer goods index corporate governance rating system index, and NSE 30.

For most indices, there is evidence that the return-volatility relationship does not exhibit asymmetric effect, with the exemption of three indices: namely, consumer goods, oil and gas, and insurance. For these indices positive shock tends to have higher impact on volatility than negative shock of equal magnitude.

Finally, our results suggest that the new monetary policy tends to be favourable to investors in the Nigerian stock market as it increases their mean returns but reduces their investment risks.

References

Adeniji, S. O., Obansa, S. A. J., & Okoroafor, O. K. (2018). Monetary policy shocks and stock market prices volatility in Nigeria. *BizEcons Quarterly*, *3*, 3-26.

Balcilar, M., Ozdemir, Z. A., Ozdemir, H., & Wohar, M. E. (2020). Fed's unconventional monetary policy and risk spillover in the US financial markets. *The Quarterly Review of Economics and Finance*, *78*, 42-52.

Bomfim, A. N. (2003). Pre-announcement effects, news effects, and volatility: Monetary policy and the stock market. *Journal of Banking & Finance*, *27*(1), 133-151.

Borio, C., Kennedy, N., & Prowse, S. D. (1994). *Exploring aggregate asset price fluctuations across countries: measurement, determinants and monetary policy implications* (BIS Economic Papers No. 40). Bank for International Settlements

Bui, T. T. (2015). Asymmetric effect of monetary policy on stock market volatility in ASEAN5. *Eurasian Journal of Business and Economics*, *8*(15), 185-197.

Edet, A. A., Bassey, A. C., & Doubara, D. O. (2023). Newspaper coverage and framing of 2022 naira note redesign in selected Nigerian dailies between November, 2022 to February, 2023. *IMSU Journal of Communication Studies, 7*(1), 81 – 92.

Gorodnichenko, Y., Pham, T., & Talavera, O. (2023). The voice of monetary policy. *American Economic Review*, *113*(2), 548-584.

Gospodinov, N., & Jamali, I. (2015). The response of stock market volatility to futures-based measures of monetary policy shocks. *International Review of Economics & Finance*, *37*, 42-54.

Mathur, A., & Sengupta, R. (2019). *Analysing monetary policy statements of the Reserve Bank of India* (Working Paper No. HEIDWP08-2019). Graduate Institute of International and Development Studies International Economics Department.

Marozva, G. (2020). The effects of monetary policy on stock market returns and volatility: Evidence from South Africa. *Academy of Accounting and Financial Studies Journal*, *24*(3), 1-11.

Muhammed, A. B., & Abdulmajeed, A. T. (2022). Impact of naira redesign and monetary policy on Nigeria economy. *International Journal of Research in Finance and Management, 5*(2), 226 -232

Wen, F., Shui, A., Cheng, Y., & Gong, X. (2022). Monetary policy uncertainty and stock returns in G7 and BRICS countries: A quantile-on-quantile approach. *International Review of Economics & Finance*, *78*, 457-482.

Banking Revolution, Transformational Power of Technology and Emerging Economies: Where is Nigeria?

Marshal Iwedi
Department of Banking and Finance
Faculty of Management Sciences
Rivers State University Nkpolu-Oroworukwo, Port Harcourt
marshal.iwedi@ust.edu.ng

Abstract
The global financial landscape has witnessed a profound transformation driven by rapid technological advancements, giving rise to what is now commonly referred to as the "Banking Revolution." This revolution has not only reshaped traditional banking practices but has also extended its transformative impact to emerging economies. This paper delves into the role of technology in reshaping banking systems within the context of emerging economies, with a specific focus on Nigeria. In recent years, technological innovations such as mobile banking, artificial intelligence, blockchain, and digital payment systems have disrupted conventional banking norms. These innovations have led to increased accessibility, efficiency, and convenience in financial services. While developed economies have been at the forefront of adopting these changes, emerging economies have also begun to embrace the potential of technology-driven financial solutions. Nigeria, as one of Africa's leading economies, presents an intriguing case study in this context.

This paper examines the multifaceted effects of the Banking Revolution in Nigeria. It explores how technological advancements have propelled financial inclusion by enabling greater access to banking services for previously underserved populations. The paper also highlights the role of fintech startups and digital platforms in reshaping the financial landscape, spurring economic growth, and fostering entrepreneurship. However, the Banking Revolution is not without its challenges. The digital divide, regulatory frameworks, cybersecurity concerns, and the need for financial literacy pose critical hurdles in Nigeria's journey towards a technology-driven banking ecosystem. This paper scrutinizes these challenges and provides insights into potential strategies for overcoming them. By analyzing the experiences of Nigeria within the broader context of emerging economies, this paper contributes to the understanding of how technology can be harnessed to drive financial inclusion, economic growth, and innovation. It also underscores the importance of creating an enabling environment through policy adjustments, infrastructure development, and education to fully realize the transformative potential of the Banking Revolution in emerging economies like Nigeria.
Keywords: Banking revolution, technology, mobile banking, digital banking, online banking, financial inclusion, economic growth

1. Introduction

Nigeria is indeed considered one of the emerging economies in Africa. With its vast resources, diverse population, and growing industries, Nigeria has shown significant potential for economic growth and development. The country has made substantial progress in recent years, attracting foreign direct investment and implementing economic reforms to enhance its business climate. However, it banking sector is currently undergoing a revolution driven by the transformative power of technology. With the rapid advancement of digital innovation, Nigerian banks are embracing new technologies to improve their operations, enhance customer experience, and drive financial inclusion.

One key aspect of this revolution is the shift towards digital banking. Traditional brick-and-mortar branches are being complemented, and in some cases, replaced by digital channels such as mobile banking apps and internet banking platforms. This not only provides convenience for customers but also allows banks to reach a wider audience, particularly those in remote areas who may not have had access to banking services previously.

The adoption of technology in Nigeria's banking sector has also led to the development of innovative products and services (Iwedi, Kocha & Wike, 2022). For example, mobile payment solutions have gained significant attraction, enabling individuals to send and receive money easily through their mobile phones. This has greatly facilitated financial transactions and reduced the reliance on cash, leading to greater efficiency and security in the financial system (Iwedi, Igbanibo & Uzo-Ahunanya, 2018).

Furthermore, technology has played a crucial role in promoting financial inclusion in Nigeria. With the introduction of agent banking and mobile money agents, individuals who were previously excluded from the formal banking sector now have access to basic financial services. This has helped to bridge the gap between the banked and unbanked population, empowering more people to participate in the economy and achieve financial stability (Iwedi, Owakah and Wofuru-Nyenka, 2023).

However, there have been several remarkable forms of banking revolution in Nigeria that have transformed the country's financial landscape. One of the most prominent forms of banking revolution in Nigeria is the introduction of mobile banking services. With the advent of smartphones and mobile applications, individuals can now perform various banking transactions on their mobile devices, such as checking account balances, transferring funds, and even making bill payments. This form of banking revolution has not only simplified the banking process but has also extended financial services to individuals in remote areas where traditional banks may not have a physical presence.

Another form of banking revolution in Nigeria can be seen in the rise of digital banking. With the increasing popularity of the internet and the growing acceptance of online transactions, many banks in Nigeria have embraced digital banking platforms. This allows customers to manage their accounts, make payments, and even apply for loans, all from the comfort of their own homes. This form of banking revolution has not only enhanced convenience but has also improved security measures to protect customer information.

Now, the big question is why has there been such a significant technological and banking revolution in Nigeria? The answer lies in the country's determination to embrace innovation and modernize its financial sector. Nigeria, being the largest economy in Africa, recognized the need to stay ahead in the global marketplace and started making significant strides towards digitizing its banking system. This revolution has brought about a host of benefits, including increased accessibility, improved efficiency, and enhanced security.

Moreover, the banking revolution has empowered millions of Nigerians by providing them with greater financial inclusion and opportunities for economic growth. It is incredible to witness how technology has transformed the banking landscape in Nigeria, paving the way for a brighter future for both individuals and businesses in the country. So, it is evident why there has been such a remarkable technological and banking revolution in Nigeria, as the nation continues to embrace innovation and make strides towards a more prosperous future. Consequently, it is imperative to embrace technological transformation in the banking system and its relationship with economic growth, which constitutes the essence of our discourse on banking revolution and transformational power of technology: where is Nigeria.

2. Benefits of Banking Revolution and the Transformational Power of Technology

The banking revolution in Nigeria has brought about numerous benefits for individuals, businesses, and the economy as a whole. This transformative shift in the banking industry has opened up a world of opportunities and convenience for Nigerian citizens

First and foremost, the banking revolution has made financial transactions more accessible and convenient for Nigerians. With the advent of online banking and mobile payment systems, customers no longer have to endure long queues and wait times at traditional brick-and-mortar bank branches (Iwedi, Wachukwu and Amadi, 2023). Instead, they can now carry out various banking activities from the comfort of their homes or offices, using their smartphones or computers. This has not only saved customers' valuable time but has also reduced operational costs for banks.

Another significant advantage of the banking revolution in Nigeria is the increased financial inclusion it has brought about. Previously, many Nigerians, especially those in remote and underserved areas, did not have access to formal banking services. However, with the introduction of mobile banking and digital payment platforms, these individuals can now easily open bank accounts, access loans, and participate in financial transactions. This has not only empowered them economically and has helped to bridge the gap between the rich and the poor.

Additionally, the banking revolution has also spurred economic growth and development in Nigeria. With increased access to financial services, businesses can now efficiently manage their finances, access credit facilities to expand their operations, and engage in online commerce, reaching a broader customer base both locally and internationally. This has stimulated entrepreneurship and innovation, creating new business opportunities and generating employment.

Furthermore, the banking revolution has played a crucial role in improving the overall security of financial transactions in Nigeria. Traditional forms of banking, such as carrying large sums of cash, were prone to theft and fraud. However, with the introduction of secure online banking systems and sophisticated fraud detection measures, the risk of financial crimes has been significantly reduced. This has instilled greater confidence in customers and has attracted foreign investors to the Nigerian banking sector. Also, the increased use of technology in banking has enhanced transparency and unauthorized access to their accounts.

This has bolstered trust in the banking system and encouraged more individuals and businesses to embrace digital banking solutions. Overall, the benefits of the banking revolution in Nigeria are far-reaching. From enhancing financial inclusion and convenience to driving economic growth, the transformation of the banking sector has positively impacted individuals, businesses, and the economy as a whole. As Nigeria continues to embrace technological advancements in the financial sector, the future looks promising for further advancements and opportunities for all.

3. Challenges of Banking Revolution

The challenges of banking revolution in Nigeria are significant and multifaceted. With the advent of technology and the increasing reliance on digital platforms, the banking sector in Nigeria has undergone a revolutionary transformation. However, this transformation has also brought forth several challenges that need to be addressed. One of the key challenges of the banking revolution in Nigeria is the issue of **financial inclusion**. While digital banking has made financial services more accessible, there is still a large portion of the population that remains unbanked. This lack of access to financial services hinders economic growth and development, as individuals and businesses are unable to take advantage of the opportunities provided by the banking sector (Iwedi, 2020).

Another challenge is the **issue of cybersecurity**. As banking becomes increasingly digital, the risk of cyberattacks and fraud also increases. Nigerian banks need to invest in robust cybersecurity measures to protect customer data and ensure the integrity of their systems. This requires constant monitoring, updating of security protocols, and educating customers about online safety practices.

Additionally, the banking revolution in Nigeria has also resulted in an increase in the **demand for skilled professionals** in the banking sector. With the adoption of new technologies and the need to provide seamless digital services, banks require employees who are proficient in digital banking platforms and have a strong understanding of cybersecurity. This poses a challenge as there is currently a shortage of skilled professionals in the country. Overall, while the banking revolution in Nigeria has brought about numerous benefits, it also presents its fair share of challenges. Financial inclusion, cybersecurity, and the need for skilled professionals are just a few of the hurdles that need to be overcome to ensure the success and sustainability of the banking sector in Nigeria.

4. Banking Revolution and the Transformational Power of Technology: Where is Nigeria?

Nigeria is currently experiencing a banking revolution that is transforming the way people manage their finances. This revolution is bringing about innovative and convenient banking solutions that are revolutionizing the Nigerian banking sector. With the advent of online banking, mobile banking, and fintech startups, customers now have access to a wide range of banking services right at their fingertips. This banking revolution is not only making banking more convenient but also more inclusive, as it is reaching previously underserved populations, especially in rural areas. Thanks to this revolution, Nigeria is quickly becoming a hub for financial innovation and a shining

example of how technology can revolutionize an entire industry. So, where is Nigeria heading with this banking revolution? It is well on its way to becoming a modern and digitally advanced banking industry that caters to the needs of its diverse population. With continuous advancements in technology, Nigeria's banking revolution shows no signs of slowing down, and the future looks bright for both the industry and its customers.

5. Conclusion

Technological advancements have significantly impacted the banking system in Nigeria, leading to a revolutionary transformation. The integration of technology into banking operations has completely revolutionized the way financial institutions operate and serve their customers. From the introduction of online banking platforms to the implementation of mobile payment solutions, technology has paved the way for a more efficient and convenient banking experience. The banking revolution in Nigeria has been driven by the rapid advancement of technology, such as the widespread adoption of internet connectivity and the increasing accessibility of smartphones. These technological developments have allowed banks to offer a wide range of innovative services that were previously unimaginable. Customers can now perform various financial transactions, such as transferring funds, paying bills, and checking account balances, with just a few taps on their smartphones. The impact of technology on the banking system in Nigeria goes beyond convenience. It has also enhanced the security and efficiency of banking operations. With advanced encryption and authentication measures, customers can trust that their financial information is being protected during online transactions. Furthermore, the automation of processes has reduced the time and effort required for routine banking tasks, allowing banks to allocate their resources more effectively. Moreover, technology has enabled financial institutions to reach previously underserved areas of the population. Through the establishment of mobile banking services and agent banking networks, individuals in remote areas now have access to basic banking services. This inclusion has contributed to the financial empowerment of many Nigerians and has facilitated economic growth and development in these regions. In conclusion, technological advancements have had a profound impact on the banking system in Nigeria, leading to a revolutionary transformation. The integration of technology has not only made banking more convenient and efficient but has also improved accessibility and security. As technology continues to advance, we can expect further innovations in the banking sector, ultimately enhancing the overall banking experience for all Nigerians. However, it is essential for banks to remain vigilant and address emerging challenges to fully harness the transformative power of technology in the banking sector.

Reference

Iwedi, M; Igbanibo, D.S. & Uzo-Ahunanya, C. (2018) Effects of cashless economy policy on national development: evidence from Nigeria. *Journal of Economics and Management Sciences*, 1(2), 56- 67.

Iwedi, M. Wachukwu, I.P & Amadi J.C. (2023). Mobile payment technology and poverty alleviation in Nigeria. *Middle East Research Journal of Economics and Management*, 3(1); 1-9.

Iwedi, M., Kocha, C.N. & Wike, C. (2022). Effect of digitalization of banking services on the Nigeria economy. *Contemporary Journal of Banking and Finance*, 2(1), 1-9.

Iwedi, M (2020). Financial inclusion in Nigeria: An evaluation of the progress, challenges and trend. *Greener Journal of Economics and Accountancy* 8(1), 1-5

Iwedi M., Owakah N. F., & Wofuru-Nyenke O. K. (2023). Effect of financial technology on financial inclusion in Nigeria. *African Journal of Accounting and Financial Research* 3(1), 21- 36. DOI:10.52589/AJAFR-A7LQZBE9.

Board Member's Competence and Financial Performance of Listed Pharmaceutical Companies in Nigeria

JONAH Ngbomowa Moses
Department of Accountancy
Faculty of Management Sciences
Rivers State University.
ngbomowa.jonah@ust.edu.ng

AARON Clinton Chika
Department of Accountancy
Faculty of Management Sciences
Rivers State University
aaron.clinton@ust.edu.ng

JACK Obiazi Tubotamuno-Ojas
Department of Accountancy
Faculty of Management Sciences
Rivers State University, Nigeria.
obiazi.ojas@ust.edu.ng

ABSTRACT

The study sought to determine the influence of board members' competence on the financial performance of listed pharmaceutical companies in Nigeria between the periods of 2016 to 2022. Ex-post -facto research design was used for the study. Stewardship theory was used to underpin the study. The predictor variable of the study, Board member's competence had its proxies as Board member's tenure (BMT) and Board Members' qualification (BMQ) while the criterion variable financial performance had its dimension as return on equity (ROE) and return on Asset (ROA). The secondary data obtained were analysed using descriptive and regression analysis aid by SPSS version 22.0.The result of the empirical analysis discovered a positive significant relation amid board members' Qualification (BMQ) and return on equity as well as return on the asset while Board Member's Tenure (BMT) show a significant negative relationship on return on equity as well as return on asset. The study concluded a significant relationship between board members' competence and the performance of listed pharmaceutical companies in Nigeria. . The study recommended, among other things, the appointment of well-trained and qualified persons to serve on the boards of directors of Nigerian pharmaceutical companies.

Keywords: board members competence, financial performance, board members Qualification, board members tenure, return on asset and return on equity

Introduction

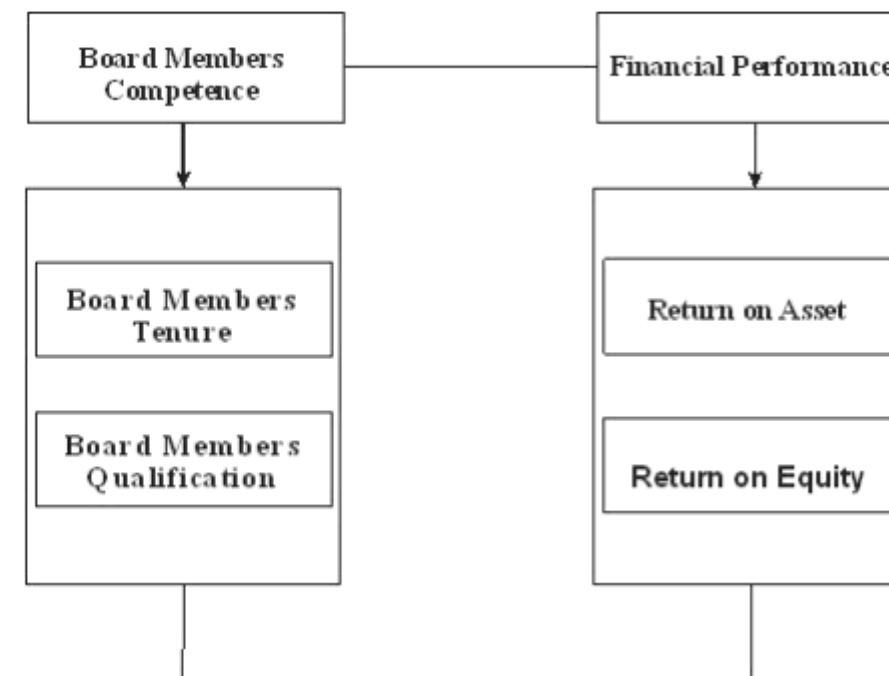
The efficient performance of corporate entities is dependent on the skill and experience of its members in terms of effective deliverance of its function when necessary. For any board member to deliver on its mandate depends on his competence. Competence emanates from knowledge, experience; attitude, values, and skill, the competence of directors are pre-requisite for effective management and contribution to the board

Kalu, (2016), posited that for a board to function efficiently a high measure of skill and knowledge is required by would-be board members to show that they are competent. Among the characteristics of corporate governance, the competence of board members remains prominent in enhancing the effectiveness of the board. The competence could be achieved through educational attainment and experience in the work, without which it will be difficult for a director to conduct the activities of the board as the cost of corporate governance is prescribed. Companies with effective boards and qualified management that operate with integrity and interact with shareholders and other stakeholders are better able to achieve their business objectives and make a positive contribution to

society (Code of Corporate Governance, 2018).

For the optimal financial performance of a corporation the competence of directors on the board is necessary due to evidence of the failure of corporate organizations worldwide thereby beaming light on the board of directors on the way their oversight functions are been performed. The importance of the competence of board members in the efficient financial performance of an organization cannot be over-emphasized because the quality of the board of directors in terms of competence is the most essential human asset that brings about effective decision-making that can improve the organizational performance (Rizvi, *et al* 2023). To improve performance, proper prioritization of diversity of skill and expertise (in terms of qualification and tenure) should be incorporated into the board of a company.

Several studies have been carried out on corporate governance and financial performance in the past but very few of them paid attention to the competence of board members which is a pre-requisite for corporate performance. Despite the identification of factors that contribute to board effectiveness, many companies appoint board members without a clear understanding of the roles they should play and without the necessary information about their responsibilities and roles. Also sometimes directors appointed on the board of a corporation are not properly empowered to perform their due function which may result in corporate failure or collapse. This creates a gap in the literature. Hence this study of board members' competence and financial performance of listed Pharmaceutical companies in Nigeria is undertaken with particular interest on Board members' qualification and tenure as a dimension to determine its influence on the financial performance of the corporation



Source: Kalu, 2016, Kenga and Nzulwa, (2018),

Purpose of the study

The main purpose of this study is to determine the influence of Board Members' Competence on the Financial Performance of Pharmaceutical Companies in Nigeria. The precise aims as used below are to;

Determine the influence of board members' tenure on the return on assets of listed Pharmaceutical companies in Nigeria.

Determine the influence of board members' tenure on the return on equity of listed pharmaceutical companies in Nigeria.
Determine the influence of board members' qualifications on the return on assets of listed pharmaceutical companies in Nigeria.
Determine the influence of board members' qualifications on the return on equity of listed pharmaceutical companies in Nigeria.

Research Hypotheses:
The null hypotheses relevant to this study are as follows;

Ho_1: There is no significant influence between board member tenure and return on assets of listed Pharmaceutical companies in Nigeria.

Ho_2: There is no significant influence between board members' tenure and return on equity of listed Pharmaceutical companies in Nigeria.

Ho_3: There is no significant influence between board member qualification and return on assets of listed Pharmaceutical companies in Nigeria.

Ho_4: There is no significant influence between board members' qualifications and the return on equity of listed Pharmaceutical companies in Nigeria.

Stewardship Theory
Donaldson and Davis (1991) propounded the theory of stewardship. This theory advocates that managers left alone, will act as stewards of wealth they control and designates the presence of a strong affiliation among satisfaction and organizational accomplishment. Stewardship theory take on that managers are stewards whose manners are aligned with the objectives of their stakeholders (Tornyeva & Wereko, 2012). The stewardship theory promotes goal congruence to remove agency conflict. This theory views managers as disciplined, honest, and loyal to the corporation's interest in achieving its goal.

Stewardship theory contends that a steward knows that personal, opportunistic, and self-servicing goals will not be achieved if you work towards the overall goals of the organization. Stewards are inspired by inherent rewards, such as trust, reputational improvement, mutuality, job satisfaction, stability of tenure, and mission alignment. Steward's goals are to maximize the shareholder's wealth through corporate performance thereby promoting goal congruence between top management and shareholders. Based on the Stewardship theory it is not important to control the top management in the meantime they stand as stewards who are expected to act in the utmost interest of the investors through firm performance (Htay et al, 2013, Kalu, 2016).

For effective performance, an organization must appoint a large number of senior managers with a broad range of skills and qualifications as well as independent minds. The directors on the board plays a vital function in creating good corporate governance by ensuring the setting up and enforcing clear lines of responsibility and accountability throughout the organization, making sure that all board members are qualified and are clear of their roles on the board of a corporation and that they are free from interference from management or outsiders, ensuring that financial compensation is following the ethical values, objectives, strategies, and control of the corporation.

Board Members Competence
The discharge of the responsibilities of the board will be assured by a balance of appropriate skills and diversity with competence, integrity, and independence (Nigerian Code of Corporate Governance, 2018). Kalu, (2016) stated that for directors to perform effectively their tasks on the board they must combine their knowledge and skill required in different functional areas and properly use this knowledge to the benefit of the firm. The increasing rate of competition for resources, complexity, and external regulation potentially need a high-quality board of directors to effectively handle the task at hand. This is necessary because the governing board of any corporation serves as a human asset needed for the effective running of an organization.

Kenga and Nzulwa, (2018) classified elements of board competence into six: educational, political, analytical, contextual, interpersonal, and strategic. Educational means board members are well informed of their roles and responsibilities. Political means board members maintain a good relationship with stakeholders; Analytical entails board member intelligence in relying on multiple analytical perspectives to Problems and prefer solutions without delay; Contextual means board members understand the culture and norms of the organization and environment where the corporation operates; Interpersonal means board members collective welfare will foster a sense of cohesiveness in the group (injury to one is an injury to all) while strategic means board activism to ensure the future of the organization (Kenya et al, 2018). Tornyera and Wereko (2012) posited that corporate failures can be traced to the nonexistence of skill and competence of board members to identify the problem early enough to prefer a solution.

Board Member Tenure
Board member tenure has to do with the duration of time a member lasts on the board of a corporation because it is believed that the longer a member stays on the board of any corporation the more experience he or she will gather which will improve his participation in decision making resulting to improve corporate performance. A board member who has been on the board of a corporation for at least five years is considered appropriate to understand the business of the board and key in for effective deliberation and offer proper contributions that can navigate the corporation towards business success.

Board Member Qualification
The competence of board members in any corporation is a pre-requisite for the efficient performance of the members leading to the effective improvement of the corporation. The qualification of the board members in terms of educational level, experience, and skill is a panacea for robust deliberation resulting in effective decision-making that will improve the entity's overall performance. A board member with at least a master's degree or professional qualifications in his or her field of study is an essential profile for consideration in terms of qualification. Rizvi et al (2023) assert that directors' skills and knowledge are necessary to effectively carry out the task of advising, providing critical support, and monitoring which are capable of improving the performance of the entity.

Financial Performance
Financial performance deals with the degree to which financial goals can be accomplished. It is the means of assessing the outcomes of companies' policies and operations in monetary terms. The financial performance measure is used to determine the financial health of a corporation over a set period and to compare related firms across the industries or sectors of the economy. Naz et al (2016) posited that financial performance is the extent to which a company's financial well-being over a given dated is measured to provide information to shareholders as well as stakeholders for effective decision-making. Financial performances matrices are return on asset, operating profit margin, return on equity, and net income among others.
Prodip and Waheed (2018) assert that financial performance has to do with the overall financial health of the corporation over a set dated and it is used to compare related firms or industries across the same firm or sector in aggregation.

Return on Asset
Assets are economic resources, which are possessed by an enterprise and are anticipated to profit future operations. Return on asset is an essential performance ratio and provides a basis for determining how efficiently financial managers employ the resources invested in the corporation to generate earnings for the firm. It measures the volume of return a corporation makes as a proportion of the worth of its aggregate assets.

$$ROA = \frac{Net\ Profit\ After\ Tax}{Total\ Asset} \times \frac{100}{1}$$

Return on Equity

Return on equity provides information on how efficient an organization is at using debt in its capital structure. It is the ratio of net profit after tax to the aggregate equity funds and displays the efficiency with which the equity funds are employed (Sanni et al, 2008).

Return on equity calculates firm profitability by investigating in what way a firm profit achieves the amount that shareholders have invested. It is calculated as

$$ROE = \frac{Net\ Profit\ After\ Tax}{Shareholders\ Fund} \times \frac{100}{1}$$

Empirical Review

Anthony and Makori (2016) conducted a study on the influence of corporate governance on organizational performance in Kenya. The precise objectives were to determine board structure influence on organizational performance. The study anchored on stakeholder theory, agency, resource dependence, and stewardship theory. The study was a descriptive research design. The pilot study was used to determine the validity and reliability of the research instruments. The study population comprised seven hundred fifty (750) workers out of eighty (80) respondents randomly selected among the population.

The instrument for data analysis was regression analysis and product-moment correlation. The finding showed that board managerial skill, board structure, organizational culture, and customer relationship management significantly influence organizational performance positively. The study concluded that board managerial skill is the most essential variable influencing performance in an organization. It was recommended that leadership training should be organized for managers and that there should be good customer relationships in an organization.

Deschones *et al*. (2015) investigated the impact of board traits on the social performance of Canadian firms. The dimension used for the independent variables is the size of the board of directors, director compensation, tenure years of managers, director's ownership, and gender while social performance variables used were corporate social responsibility community and society corporate governance employee scare and environment score. The theory used in the study was stakeholder theory. This study espoused a descriptive research method. . The data source is secondary data extracted from the annual financial statements of the selected companies.

Descriptive and multiple regressions are statistical tools used. The analysis of data collected from 60 large public Canadian firms from 2004 to 2008 was carried out by means of regression analysis. The finding indicated that the company social responsibility score had a significant positive association with members of independent directors and the female gender. There was no connection between corporate social responsibility and director remuneration, director's tenure, and director ownership. It was concluded that the choice of women and independent managers must be given better prominence because it helps to improve corporate social responsibility.

Jonah (2023) investigated corporate governance attributes and financial performance of Nigerian listed industrial goods companies. The study employed a retrospective research design and utilized stakeholder theory to support the study. The secondary data used in the study emanated from the audited annual financial reports of the research company from 2009 to 2019. Data were analysed by means of descriptive statistics, correlation, and regressions. The outcome of the finding showed a significant positive connection among board size, board composition (non-executive), and board member's competence on net profit margin as well as return on assets. The research work concludes that corporate governance attributes significantly affect financial performance of industrial goods listed companies in Nigeria. Among other things, it is recommended to appoint qualified outside directors with the required experience to the company's board of directors.

Kalu (2016) studied the corporate governance and profitability of listed Nigerian food and beverage industry. The specific goal of the study is to determine the connection between board size, board composition skills and competencies, and board gender diversity in terms of board performance. The research uses agency theory, shareholder value theory, stakeholder theory, resource dependence theory, political theory and values synergy approach. The research design adopted was descriptive. The study utilized secondary sources to collect data from annual reports of selected companies. The statistical tools employed were descriptive statistics and inferential statistics. The analysis of formulated hypotheses was done using ordinary least square multiple regression with secondary data obtained from eight (8) out of 23 companies quoted in the stock exchange of Nigeria using random sampling techniques within the time frame of 2004 to 2014. The finding depicted a positive connection among board size, board gender diversity and return on equity as well as net asset per share whereas board composition, competence and skills negatively relate to net assets per share and return on equity. The study concluded the acceptance of good corporate governance practices will improves transparency, ensures accountability, improves risk management as well as aligns shareholders' interest with that of managers, and unwraps way for corporate accomplishment. The study therefore recommended that Nigerian food and beverages companies have to take on effective corporate governance practices as a solution for enterprise advancement and existence.

Kamau (2018) studied corporate governance and the performance of financial institutions in Kenya. The precise study aims were to determine the affiliation among board skill and board committee on firm performance. Stakeholder and agency theory were used to back the study. The methodology adopted was a cross-sectional survey design. Primary data source was used. The population of the study comprises two hundred and seventy-one financial institutions in Kenya of which a sample of one hundred and sixty-two (162) were used for the study. Structured questionnaire are used to collect data on a five-point Likert scale, corporate index, and ratio were used to measure the variable. The data were analyzed by means of sample regression analysis. The end result of the finding showed that board skill had a positive significant affiliation with firm performance; board committee has a strong negative relation with firm performance. However, board independence, board diversity, and board size had no significant relationship with firm performance. The study concluded that possession of requisite skills should be considered in the appointment of board members.

Kenga and Nzolwa (2018) studied the role of corporate governance practices on corporate performance in Kenya. The precise objective of the study is to determine the impact of board skill level, composition, and size on firm performance. This study adopted a descriptive research design. The study used primary data. The systematic sample procedure was adopted in selecting the appropriate sample of three hundred and eighty-five (385) respondents in a population of MSEs of Kilifi Count in Kenya. The instruments for the collection of data used are semi-structured questionnaires. Descriptive, inferential statistics in addition to regression were used for analysis. The outcome of the study showed that board size, board composition, and board skill level effect firm performance. The study concluded that corporate governance influenced firm performance in MSEs in Kenya.

Muhammad (2016) investigated corporate governance on a firm's financial performance in the USA and Pakistan through a comparative study. The precise aims of the study were to ascertain the effect of board size and board independence on return on asset alongside return on equity. The study focused on agency theory. The study adopted both primary and secondary data. The population comprised all listed firms on the Stock Exchange of Pakistan and the New York Stock Exchange in the USA. The data were obtained from a sample of thirty (30) listed firms in both countries using a structured questionnaire which was physically distributed to Pakistan firms and floated online to the USA-selected firm. Data related to financial performance were downloaded from the annual report of selected firms in both countries for the period 2010 to 2015. Descriptive statistics aided by Excel aid the analysis, The result revealed a significant positive association among board education and experience, board ownership, board effectiveness, and chief executive officer

duality with the performance of the firm whereas a negative significant correlation exists between board size and firm performance, likewise, no relationship was found amid firm performance and director independence. It was discovered from the study that codes of corporate governance are been monitored in both countries but it was enhanced in industrialized countries.

Nwaiwu and Joseph (2018) investigated the code of corporate governance structure and financial performance of manufacturing companies in Nigeria. The study was anchored on stakeholder theory. Secondary data was used for the study, which was retrieved from the yearly report of selected manufacturing companies in Nigeria's stock exchange from 2012 to 2016. Data collected were using ordinary least square multiple regressions aided by SPSS version twenty-one (21) and E-view vision7. The finding indicated that audit committee members influence return on assets alongside earnings per share. The researchers recommended that well-educated and competent board members should be on the board of the corporation to improve performance and that non-executive managers be educated on corporate governance mechanisms.

Methodology

This study board member competence and financial performance of listed pharmaceutical companies in Nigeria adopted an ex-post factor research design. The research design was preferred because it helps to gather data and identify things that need further investigation and it is not likely to manipulate the characteristics. Population of the study comprises of six pharmaceutical companies listed in Nigeria for the period 2016 to 2022 financial years. The sample size was obtained through a non-probability sampling technique known as judgmental sampling based on the obtainability of financial data covering the period. The collected secondary data were analysed with descriptive statistics, and multiple regression techniques by means of statistical package for Social Sciences (SPSS) version 22.0.

Measurement of Variables

This has to do with how the researcher measures the variables of the study.

Abbreviation	Variables	Measurement
BMT	Board members Tenure	Number of board members that have been on the board for at
BMQ	Board member Qualifica-	Number of board members with at least a master's degree or
ROA	Return on Asset	Net income after tax x 100
ROE	Return on Equity	Net income after tax x 100

The model for this research was formulated as a guide to empirically test the influence of board member's competence on financial performance.

$FP= B_{0+}B_1$ BMC + et ……….. (1)

$ROA= B_0+B_1$ BMT + B_2 BMQ + et……….. 2

$ROE= B_0+B_1$ BMT + B_2 BMQ + et……….. 2

Where:

FP= Financial Performance

BMC= Board Member Competence

ROA= Return on Asset

ROE= Return on Equity

BMT= Board Member Tenure

BMQ= Board Member qualification

B_0 = Intercept

$B_{1\text{-}2}$ = Regression coefficient

et = error terms

Data Presentation, Analysis and Discussion

Table 2: Descriptive statistic for all variables of the study

Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Sum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
BMT	42	2.00	9.00	244.00	5.8095	1.68549	.283	.365	.129	.717
BMQ	42	3.00	6.00	190.00	4.5238	1.04153	-.134	.365	-1.120	.717
ROA	42	-.18	.28	.97	.0231	.08688	.089	.365	1.437	.717
ROE	42	-.53	2.72	5.80	.1381	.49842	2.696	.365	4.966	.717
Valid N (listwise)	42									

Source: SPSS Version 22.0 Output 2023.

Table 2 depicts the result of the descriptive statistics on minimum, maximum, sum, mean, standard deviation, skewness, and kurtosis. It shows 42 cases with no missing cases in all variables of the study. The mean of the data which indicates the measures of central tendency is displayed on the table for all variables. Likewise, the standard deviation which indicates the spread of the distribution as a measure of dispersion is also displayed. It was observed that the variables are positively and negatively skewed. All the values of skewness are less than one except for return on equity (ROE) meaning that the data assume normal distribution. The kurtosis showed positive and negative values. The positive value indicates that the regression is at its peak. Likewise, a Kurtosis value greater than three indicates leptokurtosis (ROE) while a Kurtosis value less than three indicates platykortic distribution (BMT, BMQ, ROA).

Table 3, 4, and 5: Regression Result on Board Member's Tenure and Board Members Qualification on Return on Equity

Model Summary										
					Change Statistics					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.382a	.146	.102	.47235	.146	3.326	2	39	.046	1.952

a. Predictors: (Constant), BMQ, BMT
b. Dependent Variable: ROE

Source: SPSS Version 22.0 Output 2023

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.484	2	.742	3.326	.046[b]
	Residual	8.701	39	.223		
	Total	10.185	41			

a. Dependent Variable: ROE
b. Predictors: (Constant), BMQ, BMT

Source: SPSS Version 22.0 Output 2023.

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
	B	Std. Error	Beta	T	Sig.	Lower Bound	Upper Bound
(Constant)	-.072	.329		-.219	.828	-.737	.593
BMT	-.180	.072	-.608	-2.495	.017	-.326	-.034
BMQ	.277	.117	.580	2.378	.022	.041	.513

a. Dependent Variable: ROE

Source: SPSS Version 22.0 Output 2023.

From the tables above, the Pearson correlation coefficient is 0.382, which indicates that the relationship between regressors and return on equity is weak. The determination coefficient r^2= 0.146, implies that 14.6% changes in Return on equity account for variation in the regressions, while 85.4% changes in return on equity are attributed to variables other than the one used in the model. The f-calculated value of |3.326| and a equivalent Alpha value of 0.046<0.05 level of significance indicates the efficacy of the model.

Likewise, the Durbin-Watson statistic in the same table shows a value of 1.952. Durbin Watson's test statistic ranges from 0 to 4. Values close to 2 indicate non-auto correlation while value close to 0 or 4 depicts greater positive or negative auto-correlation. Hence from the result obtained the researcher upheld the usefulness of the model since it indicates an absence of autocorrelation.

Board Member Tenure (BMT) had a t-value of |2.495| and an alpha value of 0.017<0.05 showing a significant negative connection between Board Members Tenure and return on equity. This means that a decrease in Board members' tenure will improve financial performance resulting in to increase in Return on Equity. The finding of the study agreed with Deschores *et al(*2015) who discovered a negative significant connection between Director Tenure and corporate social responsibility in the industries investigated

Board Members Qualification (BMQ) had a t-value of |2.378| and an alpha value of 0.022<0.05 indicating a significant positive connection between board members qualification and return on equity. From Table 2.3 the result showed that 0.58 increases in board member qualification will improve financial performance increasing return on equity. This finding is in consonant with Kamau, (2018), and Jonah, (2023) who discovered a positive relationship but disagree with the finding of Kalu, (2016) who discovered a negative relationship between board skill and financial performance.

Table 6: Model Summary

ANOVA[a]

Model 1	Sum of Squares	Df	Mean Square	F	Sig.
Regression	4.014	2	2.007	2.210	.048[b]
Residual	35.412	39	.908		
Total	39.551	41			

Dependent Variable: ROA

b. Predictors: (Constant), BMQ, BMT

Table 7: Regression Result on Board member's qualification on return on assets

Model Summary

Model 1					Change Statistics					
1	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	sig. F Change	Durbin-Watson
	.218a	.047	-.001	.10387	.047	2.210	2	39	.048	
										1.722

Dependent Variable: ROA
b. Predictors: (Constant), BMQ, BMT
From the table above, the Pearson correlation coefficient is 0.218, which indicates that the connection among regressors and return on asset is weak. The determination coefficient of r^2=

0.047, signifies that 4.7% of changes in return on asset is attributed to variation in the regressors, however 95.3% of changes in return on asset is as a result of changes in further variables not used in the study. The F-calculated value of |2.210| and a probability value of 0.048<0.05 significance level upheld the model's usefulness. The value of Durbin Watson statistic from the table shows 1.722 which is closer to 2.0 indicating the absence of serial correlation. Hence the researcher upheld that the model is useful for this study.

Board members Tenure (BMT) had a t-value of |2.363| and a significant alpha value of 0.034<0.05 showing a significant negative relationship on return on asset. This implies from the table that 0.351 decreases in board tenure will improve the company's financial performance resulting in to increase in return on assets. The finding of the study agreed with Deschores et al. *(*2015) who discovered a negative significant relationship between Director Tenure and corporate social responsibility in the industries investigated

Board Members Qualification (BMQ) had a t-value of |2.263| and an alpha value of 0.043<0.05 indicating a positive significant relationship between board member's qualification and return on asset. This means that 0.325 increases in board members qualification will increase the company's financial performance leading to an increase in return on asset. The finding of the study agrees with Kamau (2018), Jonah (2023), Kenga and Nzulwa, (2018), Anthony and Makori, 2016, and Muhammad (2016) who observed a significant relationship among board skill, board managerial skill, board education and experience on the financial performance of the industries investigated but fail to agree with Kalu, (2016) that observed a negative significant relationship on board skill and competence.

Conclusion and Recommendations

The performance of any individual on the board of a corporation is very important for the success of that corporation. Effective performance emanates from knowledge, skill, and experience gotten overtime. From the empirical analysis, it is evident that qualification and experience on the board a prerequisites for successful corporate performance.

The study therefore concluded a significant relationship between board member competence and financial performance of listed Pharmaceutical companies in Nigeria.

Based on the finding the study recommended that:

- Before an individual is to be appointed to the board of listed pharmaceutical companies his or her educational level should be ascertained.
- Board members should be trained on the rudiment of the board and should not be allowed to overstay on the board.
- Educated and well-competent individuals should be appointed to the board of listed Pharmaceutical companies in Nigeria.

Reference

Anthony, M.K & Makori, M. (2016). Influence of corporate governance on organizational performance in Kenya. A case of agricultural State Corporation. *The Strategic Journal of Business and Change Management, 3*(2) 725-751.

Deschones, S, Rojas, M, Boubacar, H, Brigihe, P & Alidou. Q. (2015). The impact of board traits on the social performance of Canadian firms. Emerald Publishing Limited 15(3), 293-305. https://doi:10.1108/CG-08-2014-0097

Donaldson L. & Davis J. (1991). Stewardship Theory or Agency Theory: CEO Governance and Shareholders Returns" *Australian Journal of Management 16*(1), 49-65

Htay, S. N. N. Syed, A.S & Meera, A. K. M (2013). Let's Move To Universal Corporate Governance Theory." *Middle East Journal of Scientific Research* 15(7), 1047-1053

Jonah N., M (2023). Corporate Governance Attributes and Financial performance of listed Industrial goods companies in Nigeria. *Journal of Accounting and Financial Management. 9*(5), 18-45. https://doi:10.56201/jafm.vg.no.5.2023.

Kalu. N. N, (2016). Corporate governance and profitability of listed food and beverages firms in Nigeria. Industrial engineering letters, 6(3), 47-105. https://www.Iiste//.org

Kamau .G. (2018). Corporate governance and performance of financial institutions in Kenya. *Academy of Strategic Management Journal*, *17*(1), 1-13.

Kenga. S. T; & Nzulwa. J (2018). The role of corporate governance practices on firm performance of medium-sized enterprises in Kilfi, country Kenga. *The Strategic Journal of Business and Change Management, 5* (2), 639 -661.

Muhammad.A (2016). Impact of corporate governance on firms financial performance; A corporative study of the developed and non-developed market. *Arabian Journal of Business and Management Review, 6* (6), 1-6. https://doi:10.4172/2223-5833.1000272

Naz. F, Ijaz. F. & Naqvi. F. (2016). Financial performance of firms. Evidence from Pakistan cement industry. *Journal of teaching and education, 5*(1), 81-94.

Nigerian Code of Corporate Governance 2018

Nwaiwu, J.N & Joseph. B (2018). Core corporate governance structure and financial performance of manufacturing companies in Nigeria. *International Journal of Innovative Development and Policy Studies, 6* (2), 35-49. https://corpusID:214778953

Prodip. M. & Waleed M.A. (2018). Impact of corporate governance on financial performance of Indian electronic consumer goods firm*. International Journal of Research, 05*(19), 56-74. https://edupediapublicationss.org/journals

Rizvi, S. M. A. Tahir. S.H., Raza. H, Ali, F.A & Alvi. A.R (2023), Board Characteristics and Firm Performance: A Configurational analysis. *Journal of Independent Management and Social Science and Economics, 21*(1), 69-91.

Sanni, T. A. (2008). *Dictionary of Finance and Banking.* Ozuoba, Davidstones Publishers Ltd.

Tornyeva, K. & Wereko, T. (2012). Corporate Governance and Firm Performance; Evidence from the Insurance Sector of Ghana." *European Journal of Business and Management 4* (13), 95-112.

Monetary Policy and Net Domestic Credit: Time Variant Study in Nigeria

Akani, Elfreda Nwakaego (PhD)
Department of Banking and Finance
Rivers State University Nkpolu-Oroworukwo Port Harcourt.

Abstract
This study examined the effect of monetary policy on lending activities in Nigeria by utilizing liquidity ratio, open market operation, treasury bill rate, monetary policy rate and real interest rate as proxies of monetary policy; while lending activities is proxied by net domestic credit. Time series data for the period 1987 – 2022 was sourced from Central Bank of Nigeria's Statistical Bulletin. To analyse the data, a collection of techniques which include Johansen co-integration test, parsimonious vector error correction model and pair-wise causality tests. The study found that monetary policy measures, as formulated in the regression model explains 51.6 percent of the variations in net domestic credit. The model was statistically significant when judged by the f-statistic and probability while the Durbin Watson statistic proved the absence of serial autocorrelation. The Augmented Dickey Fuller test, proved that variables were co-integrated of order I(1) and as such, deemed fit for employment in subsequent econometric estimations. The short run results showed that monetary policy rate, open market operations and real interest rate have positive relationships with net domestic credit, while liquidity ratio and treasury bills rate have negative relationship with net domestic credit.It further provided evidence of significant relationship that pertain to monetary policy rate, open market operations, and treasury bills rate,; while those of liquidity ratio and real interest rate are not significant. Thereis also a long run relationship among the variables as seen in the cointegration results. There is also a proof of uni-directional causality stemming from net domestic credit to liquidity ratio. From the findings, the study concluded that monetary policy variables significantly affect the lending activities of commercial banks in Nigeria. The study therefore recommended that the monetary authorities should optimize the application of monetary policy variables to increase bank lending without inflation in Nigeria.
Keywords: Monetary policy, net domestic credit, monetary policy rate, treasury bill rate, liquidity ratio

Introduction

The context of the credit channel of the monetary transmission mechanism implementation of a contractionary (expansionary) monetary policy framework would decrease (increase) the reserves available for lending to firms in the private sector which rely on bank loans (Peek & Rosengren, 1995; Kashyap & Stein, 1994; Kashyap,. Stein, & Wilcox, 1993; Kashyap, Stein,& Wilcox, 1996). Consequently, the contractionary (expansionary) monetary policy will not only cause a fall (increase) in interest income and profits of the banks but would also lead to a fall in real output in the economy (Bernanke & Blinder, 1995; Gibson, 1995; Bernanke & Blinder, 1988).

The monetary authorities use credit policies to achieve macroeconomic growth. For instance, credit policies are used to achieve growth in some sectors of the economy. Lending represents the bulk of the institution's assets, while interest on the credit represents the major source of income to the financial institutions. It is the aggregate amount of funds provided by financial institutions empowered with credit function to individuals, business organizations and government (Timsina, 2014). The credit channel is one of the major transmission mechanisms of monetary policy through the instrumentality of the banking system. Consequently, the existence of such a transmission channel has major implications for monetary policy.

First, marginal cost and earning considerations are not the sole factors relevant to investment and financing decisions, but additionally the availability and access to credit. Second, the overall effect of monetary policy on aggregate expenditure can no longer be completely characterized solely by a vector of price variables. It could as well depend on other factors, such as the propensity to supply funds, the average degree of substitution between different sources of funding, and the distribution of these substitution rates among economic agents. Third, the credit channel implies that the transmission process of monetary policy depends on the structure of the financial system. This means that structural changes in the financial sector could affect the monetary transmission mechanism.

The fragility of the banking system limits the effectiveness of the monetary policy and monetary transmission mechanism. This means unsound banking system can undermine the realization of

monetary and macroeconomic goals. There are contending arguments on monetary policy and bank lending creation. The first obstacle for developing countries in principle could lie in the way how base money is distributed from the central bank tocommercial banks. The technical process of money supply is quite different from that in developed countries: While most industrialized countries rely on indirect instruments such as open market operations to provide liquidity to the banking system, many developing countries lack deep financial markets to conduct open market operations in and hence have torely on direct monetary policy tools such as bank-by-bank rediscount quotas or credit restrictions.

The effectiveness of monetary policy on credit creation is still an issue under intense debate particularly related to the efficacy of the transmission. Several studies have been done in relation to monetary policy and commercial banks credit, Edwin (2010) did a study on challenges faced by the Central Bank of Kenya in effective monetary policy transmission, Gitonga (2010) studied the relationship between interest rate risk management and commercial lending behavior, Kimoro (2017) did a survey of the foreign exchange reserves risk management strategies and commercial banks credit channels and Mbotu (2018) did a study on the impact of monetary policy rate on commercial banks‘ benchmark lending interest rates.

While there are many studies on the effect of monetary policy on the economy, the effect of monetary policy on sectoral credit allocation is lacking in literature, for instance Tayler and Zilberman (2014) examined the macro prudential roles of bank capital regulation and monetary policy, Kishan and Opiela (2000) used the capital-to-asset ratio as proxy for a bank's ability to raise uninsured deposits, finding that the loan portfolios of well-capitalized banks are less sensitive to monetary policy shocks than are those of poorly capitalized banks of the same size. The studies failed to explain the relationship between monetary policy and credit creation in Nigeria. Furthermore, the studies are older with no references to reforms in the Nigeria financial sector such as the banking sector consolidation and recapitalization. From the above problems and knowledge gap this study examined the relationship between interest rate channel of monetary policy and net domestic credit in Nigeria.

Literature Review

Monetary Policy: The Concept

Monetary policy refers to the combination of measures designed to regulate the value, supply and cost of money in an economy. It can be described as the art of controlling the direction and movement of credit facilities in pursuance of stable price and economy growth in an economy (Chowdhury, Hoffman & Schabert, 2003). Monetary policy refers to the actions of the Central Bank to regulate the money supply which could be through discretional monetary policy instruments such as the open market operation (OMO), discount rate, reserve requirement, moral suasion, direct control of banking system credit, and direct regulation of interest rate (Loayza, & Schmidt-hebbel, 2002). Monetary policy comprises the formulation and execution of policies by the central bank to achieve the desired objective or set of objectives; the policies and decisions are aimed at guiding bank lending rates to levels where credit demand and money growth are at a level consistent with aggregate supply elasticity (Loayza & Schmidt, 2002).

Monetary Policy: The Instrument

There is general agreement among economists and policymakers that monetary policy works mainly through interest rates. When the central bank policy is tightened through a decrease inreserve provision, for instance, interest rates rise. Interest rate rise means that the banks have to adjust their lending rates upwards. The rise in interest rates leads to a reduction in spendingby interest sensitive sectors of the economy, such as housing and consumer purchases of durable goods. Therefore, the cost of credit becomes high and in most cases becomes unaffordable reducing demand for credit. Some economists and policymakers have argued that an additional policy channel works through bank credit (Keeton, 2001; Stiglitz & Weiss, 2001). In this view, monetary policy directly constrains the ability of banks to make new loans, making credit less available to borrowers who depend on bank financing. Thus, in the credit channel, restrictive monetary policy works not only by raising interest rates, but also bydirectly restricting bank credit.

Open market operations

An open market operation (OMO) is an activity by a central bank to buy or sell government bonds and bills on the open market. A central bank uses them as the primary means of implementing monetary policy. The usual aim of open market operations is to control the short term interest rate and the supply of base money in an economy, and thus indirectly control the total money supply. This involves meeting the demand of base money at the target interest rate by buying and selling government securities, or other financial instruments. Monetary targets, such as inflation, interest rates, or exchange rates, are used to guide this implementation. Federal Reserve has used OMOs to adjust the supply of reserve balances so as to keep the federal funds rate around the target federal funds rate established open market operations are the principal instrument in affecting the full range of credit and monetary conditions.

Net domestic credit

Lending activity is one of the most outstanding functions of a modern bank. A bank has sometimes been called a factory for the manufacture of credit. It is an open secret that the banks do not keep reserve against deposits in order to meet the demands of depositors. The bank is not a cloak room where you can keep your currency notes or coins and claim those very notes or coins back when you desire. It is generally understood that money received by the bank is meant to be advanced to others. A depositor has to be content simply with the bank's promise or undertaking to pay him back whenever he makes a demand. This, the bank is able to do with a very small reserve, because all the depositors do not come to withdraw money simultaneously; some withdraw, while others deposit at the same time. The bank is thus enabled to erect a vast superstructure of credit on the basis of a small cash reserve.

Theoretical ReviewsLoanable Funds Theory

Under the loanable Funds theory of interest, the rate of interest is calculated on the basis of demand and supply of loanable funds present in the capital market. The loanable funds theoryof interest advocates that both savings and investments are responsible for the determination of the rates of interest in the long run while short-term interest rates are calculated on the basis of the financial conditions prevailing in an economy. The determination of the interest rates in case of the loanable funds theory of the rate of interest depends on the availability of loan amounts. The availability of such loan amounts is based on factors like the net increasein currency deposits, the amount of savings made, willingness to enhance cash balances and opportunities for the formation of fresh capitals (Bibow, 2000). The nominal rate of interest isdetermined by the interaction between the demand and supply of loanable funds.

Empirical Review

Samuel, John Michael (2020) investigated the effects of monetary policy on bank lending and economic performance in Nigeria for the period of 35 years which covered 1984 to 2018. Thestudy addressed broad money supply, monetary policy rate, prime lending rate and inflation rate as monetary policy indicators while real gross domestic product was regressed as economic performance. The data were gathered from Nigeria Central Bank's StatisticalBulletin and National Bureau of Statistics; and employed two models to analyse the data by applying the estimation techniques of ordinary least square. Evidence from model one positioned that money supply and inflation rate have significant influence on bank lending while and monetary policy rate had insignificant influence on bank lending. The second model discovered that money supply has significant influence on economic performance whereas other variables of prime lending rate, monetary policy rate and inflation rate have negative and insignificant effect on economic performance under the study period. However, the study concluded that monetary policy positively and significantly influenced economic performance in Nigeria.

Ademokoya, Sanni, Oke and Abogun (2020) examined the impact of monetary policy on credit creation ability of banks in Nigeria. Specifically, it investigates the impact of monetary policy rate, money supply, liquidity ratio, and change in maximum lending rate on bank credit in Nigeria. A monthly time series data from 2007-2019 were sourced from statistical bulletin of the Central Bank of Nigeria. The sourced data was subjected to multiple regression analysis using the fully modified ordinary least square regression to estimate the parameters of the model. Findings

reveal that money supply significantly and positively influence bank credit in Nigeria; while liquidity ratio significantly but negatively influence bank credit in Nigeria. On the contrary, monetary policy rate and maximum lending rate werefound not to significantly affect bank credit in the case of Nigeria.

William, Zehou, and Hazimi (2019) investigated the factors that influence domestic credit to the private sector in Ghana. The study uses the Johansen cointegration and vector auto- regression model to analyze panel data spanning the period from 1961 to 2016. Findings fromthe study revealed that though there is no long-run association among the variables, there exist significant short-run relationship between domestic credit to the private sector, broad money and gross capital formation. Further diagnostic tests showed that gross capital formation Granger causes both domestic credit to the private sector and broad money, and domestic credit to the private sector Granger-causes broad money. They concluded that money supply and gross capital formation are necessary factors to address in the quest for developing the financial strength of domestic banks in providing credit facilities to the privatesector for economic growth.

Olorunmade, Samuel, and Adewole, (2019) examined the determinant of private sector credit and its implication on economic growth in Nigeria. The fluctuation in the supply of money and credit is the basic causal factor at work in cyclical process; when money supply falls, prices decrease, profit decrease, production activities become sluggish and production falls and when money supply expands, price rise, profit increase and the total output increases and finally growth takes place. Sample regression analysis was used to analyse data obtained from Central Bank of Nigeria statistical bulletin from 2000 to 2017. It was revealed in the determinant of credit supply that there was significant relationship between Total credits to private sector and money supply in Nigeria. The study also finds that there was significant relationship between private sector credit and economic growth in Nigeria.

Zaagha and Murray (2020) examined the effect of deposit money banks policy on private sector funding in Nigeria. Time series data was sourced from Central Bank of Nigeria Statistical Bulletin from 1985-2018. Credit to private sector, credit to core private sector and credit to small and medium scale enterprises were used as dependent variables while liquidity ratio and loan to deposit ratio was used as independent variables. Ordinary Least Square (OLS), Johansen Co-integration test, normalized co-integrating equations, parsimonious vector error correction model and pair-wise causality tests were used to conduct the investigations and analysis. The empirical findings revealed that deposit money banks policy explains 40.8 percent variation on credit to core private sector, 28.1 percent and 58.9 percent of the variation in credit to core private sector and credit to small and medium scale enterprises sector. The study conclude that deposit money banks policy has no significant relationship with credit to private sector and credit to core private sector but has significantrelation with credit to small and medium scale enterprises sector.

Toby and Zaagha (2020) empirically examined the effect of Central Bank policy rates on private sector funding in Nigeria. The purpose of the study was to examine the extent to which monetary policy affect private sector funding in Nigeria. Time series data were sourced from Central Bank of Nigeria Statistical Bulletin from 1985-2018. The study employed multiple regression models to estimate the relationship that exists between monetary transmission channels and private sector funding in Nigeria. Ordinary Least Square (OLS), Augmented Dickey Fuller Test, Johansen Co-integration test, normalized co-integrating equations, parsimonious vector error correction model and pair-wise causality tests were used to conduct the investigations and analysis. Empirical findings that Central Bank Policy rates has significant relationship with credit to private sector, credit to core private sector and no significant relationship with credit to small and medium scale enterprise sector.

Zaagha (2020) examined the effect of money supply on private sector funding in Nigeria. The purposeof the study was to examine the extent to which monetary policy affect private sector funding in Nigeria. Time series data was sourced from Central Bank of Nigeria Statistical Bulletin from 1985- 2018. Credit to private sector, credit to core private sector and credit to small and medium scale enterprises sector was used as dependent variables while narrow money supply, broad money supply, large money supply, private sector demand deposit was used as independent variables.

Ordinary Least Square (OLS), Augmented Dickey Fuller Test, Johansen Co-integration test, normalized co- integrating equations, parsimonious vector error correction model and pair-wise causality tests were used to conduct the investigations and analysis. The empirical findings revealed that money supply explains 82.1 percent variation on credit to core private sector, 85.2 percent and 23.4 percent of the variation in credit to private sector and credit to small and medium scale enterprises sector. The study conclude that money supply has significant relationship with credit to private sector, credit to core private sector and credit to small and medium scale enterprises sector. From the findings, the study recommends that Central Bank of Nigeria should induce the variations of the amount of money changes through the nominal interest rates. That the monetary authorities should ensure adequate quantity of money supply that positively affect private sector funding in Nigeria.

Methodology

The study used ex post facto research design, thus used historical data collected by the Central Bank of Nigeria from 1987 to 2021. The data which include liquidity ratio, monetary policy rate, treasury bills rate, real interest rate and open market operation were extracted from the bank's statistical bulletin were analysed for short-run, long-run and causality results using the error correction model, Johansen cointegration technique and pairwise causality testrespectively.

Model Specification

NDC=f(LR, OMO, MPR, TBR, RIR) (1)

$NDC = \beta_0 + \beta 1LR + \beta 2\, OMO + \beta_3 MPR + \beta 4\, TBR + \beta 4\, RIR + \mu$ (2)

Where:

NDC	=	net domestic credit as percentage of gross domestic product
LR	=	Liquidity Ratio
OMO	=	Open Market Operation
TBR	=	Treasury Bill Rate
MPR	=	Monetary policy rate
RIR	=	Real interest rate
β_0	=	Intercept
$\beta_1 - \beta_6$	=	Coefficient of the explanatory variable
μ	=	Error term

Data Analysis Method

Unit Root Tests

It is important to check each time series variable for stationarity or unit root before conducting the co-integration test on specified models. The ADF is unit root test for time series. It is shown in the equation below:

$$\Delta Y_t = \beta_1 + \beta_2 + \delta Y_{t-1} + \sum^{n}_{i=1} \alpha_i \Delta Y_{t-i} + \varepsilon_t$$

Where Y_t is the variable in question, ϵ_t is white noise error term and $\Delta Y_{t-1} = (Y_{t-1} - Y_{t-2})$, $\Delta Y_{t-2} = (Y_{t-2} - Y_{t-3})$, (4)

These tests are used to determine whether the estimated is equal to zero or not. Fuller (1976) has compiled cumulate distribution of the ADF statistics by showing that if the value of the calculated ratio of the coefficient is less that critical value from ADF statistics, then Y is said to be stationary.

Johansen Cointegration Test

The cointegration test established whether a long run equilibrium relationship exist among the variables. It is generally accepted that to establish a cointegration, the likelihood ratio must be greater than the Mackinnon critical values. The model can be stated as

$\Delta X_t = \mu + \Psi_1 \Delta X_{t-1} + \Psi_2 \Delta X_{t2} + \ldots + \Psi_{p-1} \Delta X_t - p + 1$ (5)

Where

μ is a constant term.

ΔX_t Represents the first cointegrating differences

Granger Causality

The main objective of this study is to investigate the causality between macroeconomic variables and Foreign Portfolio Investments. Granger (1996) proposed the concept of causality and exogeneity: a variable Y_t is said to cause X_t, if the predicted value of X_t is ameliorated when information related to Y_t is incorporated in the analysis.

ANALYSIS AND DISCUSSION OF FINDINGS

Descriptive Analysis

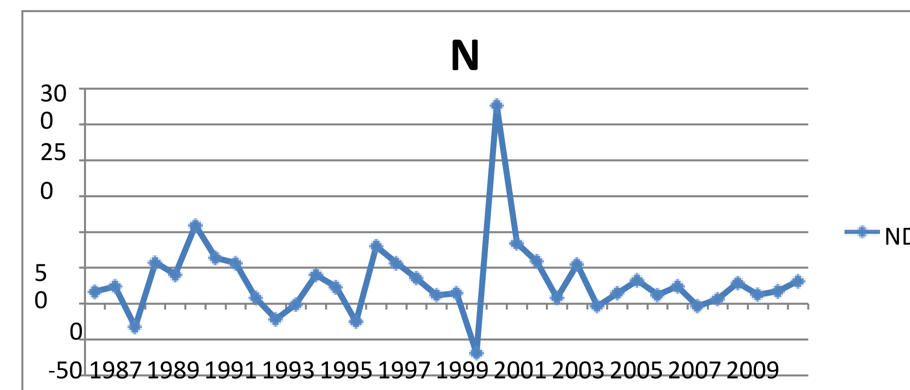


Figure 4.1: Fluctuations of Nigerian net domestic credit (1987-2022).

Source: Excel Output 2023

The trend portrays that net domestic credit was below 15 percent from 1987 – 2004. The fluctuation from 2006 could be traced to banking sector reforms and variation in monetary policy variables such as the liquidity ratio, increase in liquidity ratio contract bank lending ability.

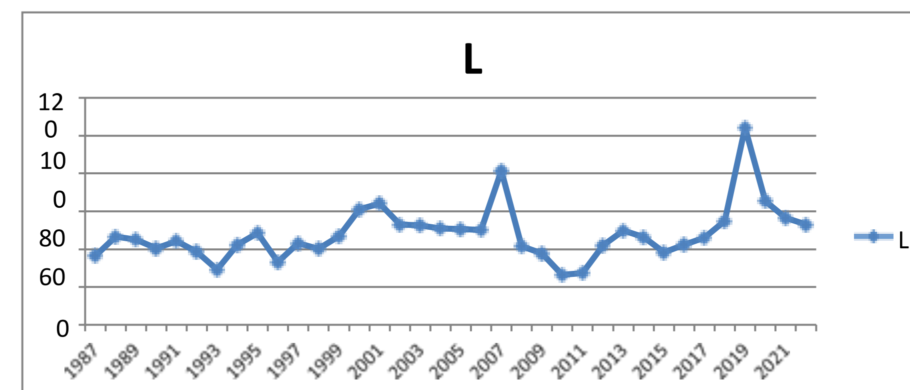


Figure 4.2: Fluctuations of Liquidity ratio (1987-2022).
Source: Excel Output 2023

The trend portrays that liquidity ratio was below 40 percent from 1987 – 2007. The fluctuation in liquidity ratio is in line with the fluctuation in net domestic credit, this shows the relationship between the variables.

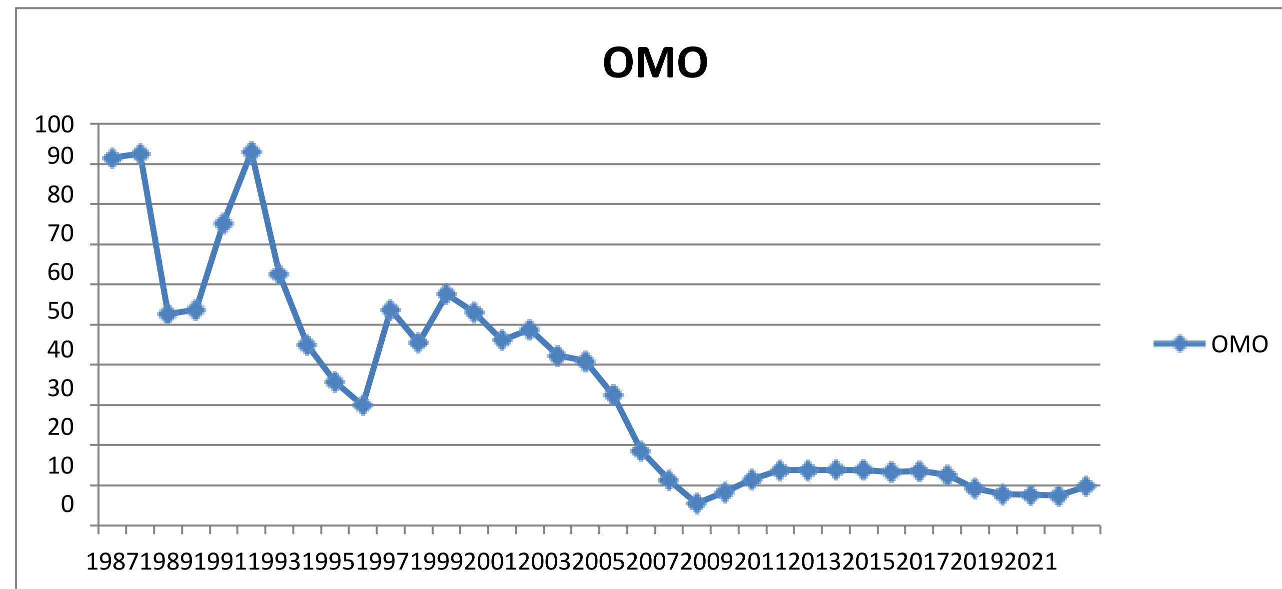
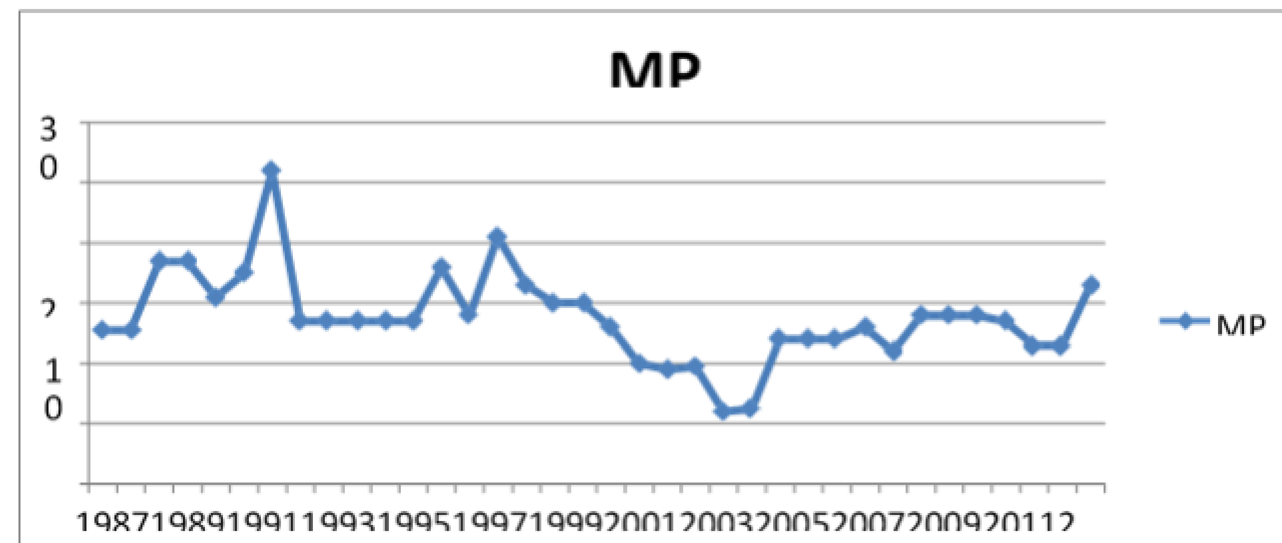


Figure 4.3: Fluctuations of open market operation (1987-2022).
Source: Excel Output 2023

The trend portrays that open market operation was downward trend over the periods, the downward slope of the variable also correspond with the downward slope of net domestic credit.

Figure 4.4: Fluctuations of monetary policy rate (1987-2022).



The trend portrays that monetary policy rate was fluctuate to a very high extent; this could be traced to variation in monetary policy targets with the periods of the study.

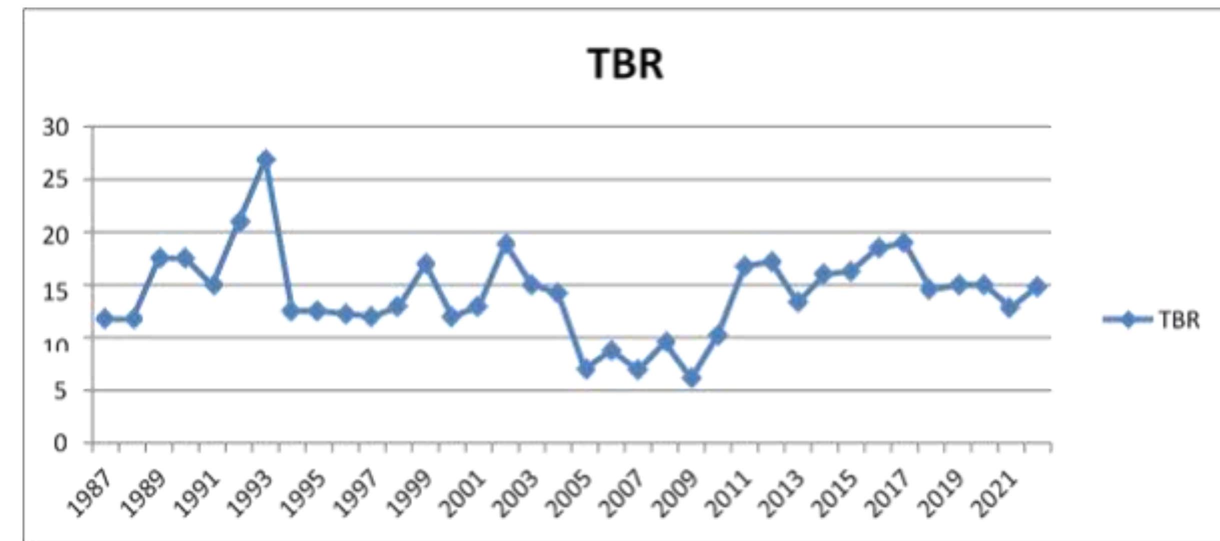


Figure 4.5: Fluctuations of Treasury bill rate (1987-2022).
Source: Excel Output 2023

The trend portrays that Treasury bill rate fluctuate to a very high extent; this could also betraced to variation in monetary policy targets with the periods of the study.

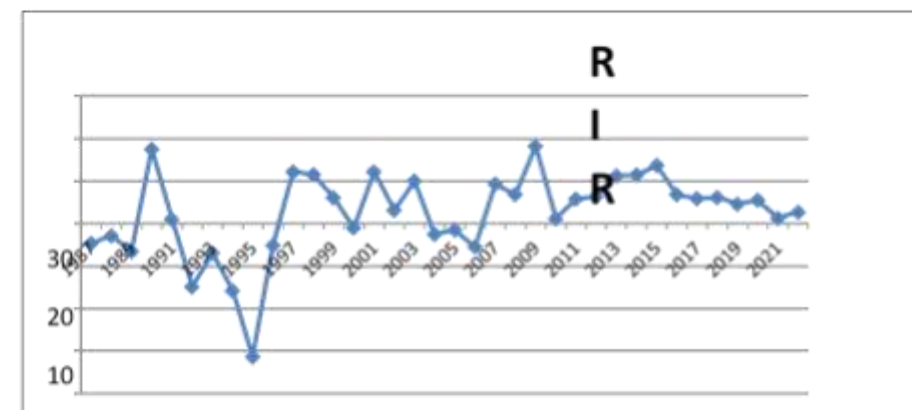


Figure 4.5: Fluctuations of Real interest rate (1987-2022).
Source: Excel Output 2023

The trend portrays that Treasury bill rate fluctuate to a very high extent; the negative trendscould be traced to inflation rates with the time periods of the study.

Table 1: Presentation of Unit Root Test at Difference
Null Hypothesis: D(NDC) has a unit root

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-9.955897	0.0000
Test critical values:	1% level	-3.646342	
	5% level	-2.954021	
	10% level	-2.615817	
Null Hypothesis: D(MPR) has a unit root			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-8.061837	0.0000
Test critical values:	1% level	-3.646342	
	5% level	-2.954021	
	10% level	-2.615817	
Null Hypothesis: D(LR,2) has a unit root			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.218586	0.0000
Test critical values:	1% level	-3.699871	
	5% level	-2.976263	
	10% level	-2.627420	
Null Hypothesis: D(OMO,2) has a unit root			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.861642	0.0000
Test critical values:	1% level	-3.679322	
	5% level	-2.967767	
	10% level	-2.622989	
Null Hypothesis: D(RIR,2) has a unit root			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.624984	0.0010
Test critical values:	1% level	-3.689194	
	5% level	-2.971853	
	10% level	-2.625121	
Null Hypothesis: D(TBR,2) has a unit root			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-7.988368	0.0000
Test critical values:	1% level	-3.661661	
	5% level	-2.960411	
	10% level	-2.619160	

Source: Extracts from E-Views 9 Output

Using the Augmented Dickey Fuller test, the results of the stationarity tests for all the study variables are presented in table 1 above presents the stationarity test results of the study's timeseries data. It indicates that the absolute values of the ADF test statistics for all the study variables are higher than their corresponding Mackinnon's critical values at 1%, 5% and 10%respectively. All the study variables are integrated of order I(1) and as such, deemed fit for employment in subsequent econometric estimations.

Table 2: Presentation Co-integration Test

Series: NDC MPR LR OMO RIR TBR

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.847103	146.4405	95.75366	0.0000
At most 1 *	0.663985	84.46689	69.81889	0.0022
At most 2 *	0.543899	48.47714	47.85613	0.0436
At most 3	0.280911	22.57075	29.79707	0.2678
At most 4	0.231442	11.68834	15.49471	0.1725
At most 5	0.086940	3.001460	3.841466	0.0832

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.847103	61.97362	40.07757	0.0001
At most 1 *	0.663985	35.98975	33.87687	0.0276
At most 2	0.543899	25.90639	27.58434	0.0807
At most 3	0.280911	10.88241	21.13162	0.6590
At most 4	0.231442	8.686883	14.26460	0.3131
At most 5	0.086940	3.001460	3.841466	0.0832

Source: Extracts from E-Views 9 Output

The results of Johansen Co-integration tests for all the time series variables of this study are presented in table 2, the Johansen's co-integration results confirm the prevalence of one (1) co-integrating equations, thus indicating the prevalence of a significant long run relationship among the time series variables under study, in which case we proceed to correct for errors between the long and short run variables. In the long run model one found that all the independent variables have positive long run effect on lending activities.

Table 3: Granger Causality Test

Null Hypothesis:	Obs	F-Statistic	Prob.
MPR does not Granger Cause NDC	33	0.07695	0.9261
NDC does not Granger Cause MPR		1.47968	0.2450
LR does not Granger Cause NDC	33	0.20210	0.8182
NDC does not Granger Cause LR		4.50255	0.0202
OMO does not Granger Cause NDC	33	0.13353	0.8756
NDC does not Granger Cause OMO		0.27878	0.7588
RIR does not Granger Cause NDC	33	0.12983	0.8788
NDC does not Granger Cause RIR		1.42813	0.2567
TBR does not Granger Cause NDC	33	1.00021	0.3806
NDC does not Granger Cause TBR		2.13674	0.1369

Source: Extracts from E-Views 9 Output.

The output of the Pair-Wise Granger Causality tests is presented in table 3, the results shows the Pairwise Granger Causality Output of employed variables of the study, the results providecompelling evidence to conclude the prevalence of causality between the dependent and the independent variables as there is a uni-directional causality from NDC to LR.

Table 5: Presentation of Estimated Error Correction

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(MPR)	1.630177	3.363429	2.484677	0.0018
LR(-1)	-0.72909	0.743465	-0.975042	0.3382
OMO(-1)	0.055814	0.500816	2.111445	0.0121
RIR	0.698978	1.270775	0.550041	0.5868
TBR	-1.934781	3.027644	-2.639039	0.0282
C	58.68959	60.26959	0.973784	0.3388
ECM(-1)	-1.006143	0.213601	-4.710376	0.0001
R-squared	0.516804	Mean dependent var		0.018529
Adjusted R-squared	0.409427	S.D. dependent var		80.54953
S.E. of regression	61.90131	Akaike info criterion		11.27020
Sum squared resid	103457.8	Schwarz criterion		11.58445
Log likelihood	-184.5934	Hannan-Quinn criter.		11.37737
F-statistic	4.812987	Durbin-Watson stat		2.071365
Prob(F-statistic)	0.001856			

Source: Extracts from E-Views 9 Output

To evaluate and correct for the errors existent between the long and short run dynamics in thestudy, the error correction estimation was executed. The results are shown in table 5 above. From the table, the ECM coefficient stands at stands at -1.006143 from with the expected negative sign, which implies that approximately 106 percent disequilibrium in net domestic credit in Nigeria is offset within the year. On the other hand, the coefficient of determination (R^2) of 0.516804 indicates that about 51.6 percent of the variations in dependent variables thelong run is accounted for by variations in the study's explanatory variables. The profitability of ECM f-statistics of 0.0001 confirms its goodness of fit and its Durbin-Watson value of 2.071365 within acceptable range also. Beta coefficient of the variables proved that monetarypolicy rate has positive and significant effect, liquidity reserves have negative and no significant effect, open market operation have positive and significant effect, real interest ratehave negative and no significant effect while treasury bill rate have negative and significant effect on net domestic credit in Nigeria.

Nigeria. The positive effect of the variables confirm our a-priori expectations and in line withmonetary policy theories such as the classical monetary policy theories. It could be recall that the classical economist believed that manipulation of monetary policy variables effect theavailability of money in the economy. The findings of this study is supported by Keynesian liquidity preference theory as it could be used to determine the interest rate by the demand forand supply of money which is a stock theory. It emphasizes that the rate of interest is purely amonetary phenomenon. It further validates loanable funds theory is a flow theory that determines the interest rate by the demand for and supply of loanable funds.

The findings of this confirm the bank lending of monetary policy transmission. Mishkin (1995) argued that to be successful in conducting monetary policy, the monetary authorities must have an accurate assessment of the timing and effect of their policies on the economy, thus requiring an understanding of the mechanism through which monetary policy affects the economy. The bank lending channel represents the credit view of this mechanism. According to this view, monetary policy works by affecting bank assets (loans) as well as banks' liabilities (deposits). The key point is that monetary policy besides shifting the supply of deposits also shifts the supply of bank loans. For instance, an expansionary monetary policy that increases bank reserves and bank deposits increase the

quantity of bank loans available. Where many borrowers are dependent on bank loans to finance their activities, this increase in bank loans will cause a rise in investment (and also consumer) spending, leading ultimately to an increase in aggregate output, (Y). The schematic presentation of the resultingmonetary policy effects is given by the following:

M ↑ → Bank deposits ↑ → Bank loans ↑ →I ↑ → Y ↑

(Note: M= indicates an expansionary monetary policy leading to an increase in bank deposits and bank loans, thereby raising the level of aggregate investment spending, I, and aggregate demand and output, Y,).

In this context, the crucial response of banks to monetary policy is their lending response and not their role as deposit creators. The two key conditions necessary for a lending channel to operate are: (a) banks cannot shield their loan portfolios from changes in monetary policy; and (b) borrowers cannot fully insulate their real spending from changes in the availability of bank credit. The importance of the credit channel depends on the extent to which banks rely on deposit financing and adjust their loan supply schedules following changes in bank reserves; and also the relative importance of bank loans to borrowers. Consequently, monetary policy will have a greater effect on expenditure by smaller firms that are more dependent on bank loans, than on large firms that can access the credit market directly through stock and bond markets (and not necessarily through the banks).

However, the study found that liquidity reserves and Treasury bill rate have negative effect on net domestic credit over the periods covered in this study. The negative effect of liquidity reserves confirm the a-priori expectations and in line with the liquidity earnings assets trade- off. the negative effect of the variables is in not line with the positive findings of the study confirm the findings of Zuzana, Riikka and Laurent (2015) who found no evidence of the bank lending channel through the use of reserve requirements. The author noted that changes in reserve requirements influence loan growth of banks. Findings from Adeniyi et al. (2018) also confirm that structural changes in monetary policy system exerted positive impact on loans and advances and that the MPR is a significant variable which causes loans and advances of deposit money banks in Nigeria. Ogolo (2018) finds positive relationship between interest rate and monetary policy rate with commercial banks' lending to the agricultural sector but opine that Treasury bill rate, broad money supply and bank liquidity ratio have negative effect on the dependent variable. The findings of João, Barroso and Gonzalez (2017) that the easing impacted the lending channel on average two times more than the tightening. Foreign and small banks mitigate these effects and banks are prone to lend less to riskier firms. The findings of Mohammed (2014) that there was co-integration between re-positioning of commercial banks and capacities of SMEs to deliver services and also a significant dispersion resulting from lending conditions and macroeconomic variables and the findings of Ovat (2016) that exchange rate and lending rate are statistically significantto SMEs credit.

Conclusion and Recommendations

The study aimed to ascertain the relationship between monetary policy and net lending activities in Nigeria, and has indeed observed short-run, long-run and causal relationships among the variables. Specifically, the short run results show different directions of the constituents of the independent variable in their relationship with net domestic credit, though these aggregated to being significant on lending activities. Besides, of all the variables only a strand of causal relationship was observed from net domestic credit to liquidity ratio. The study therefore concludes that there is no significant relationship between liquidity ratio and lending activities in Nigeria. From the findings, the researcher makes the following recommendations:

The study recommends that the Central Bank of Nigeria should induce the variations of the amount of money changes through the interest rate to encourage investment borrowings and deposit mobilization.

The study recommends that the monetary authorities should ensure adequate quantity of money supply that affects positively net domestic credit in Nigeria. This is becausemoney does

not affect only the absolute price and quantity of trade, but it affects also the level of financial intermediation.

The study recommends the need for monetary authorities to Stabilize Central Bank Rates such as the monetary policy rate and the Treasury bill rates. This will affect the availability of financial intermediary credit as central bank adjusts the level of moneysupply.

References

Adeniyi1, A. M., Adeyemi, A. K, Salawudeen, O. S. & Fagbemi, T. O. (2018). Monetary policy and bank credit in Nigeria: A Toda-Yamamoto Approach. *ACTA UNIVERSITATIS DANUBIUS, 14,* (5), 718-729.

Adigwe, P. K., Echekoba, F. N, & Onyeagba, J. B. C. (2015). Monetary policy and economic growth in Nigeria: A critical evaluation. *IOSR Journal of Business and Management (IOSR-JBM), 17* (2), 110-119.

Anigbogu, T. U., Okoli, I. M. & Nwakoby, N. P. (2015). Financial intermediation and small and medium enterprises performance in Nigeria (An aggregated analysis: 1980-2013).*European Scientific Journal, 11*(28), 257-272.

Berger, A. N., & Udell, G. F. (1994). Did risk-based capital allocate bank credit and cause a 'credit crunch' in the United States? *Journal of Money, Credit and Banking 26*(3), 585–628.

Bernanke, B. S. & Blinder, A. S. (1988). Credit, money, and aggregate demand. *American Economic Review Papers and Proceedings 78*(2), 435–439.

Bernanke, B. S., & Blinder, A. S. (1992). The federal funds rate and the channels of monetarytransmission. *American Economic Review 82*(4), 901–921.

Bernanke, B. S. & Gertler, M. (1995). Inside the black box: The credit channel of monetary policy transmission. *Journal of Economic Perspectives, 9*(4), 27–48.

Bernanke, B. S., Gertler, M. & Gilchrist. S. (1996). The financial accelerator and the flight toquality. *The Review of Economics and Statistics 78*(1), 1–15.

Campello, M. (2002). Internal capital markets in financial conglomerates: Evidence from Small bank responses to monetary policy. *Journal of Finance 57*(6), 2773–2805.

Fazzari, S. M., Hubbard, R. G. & Petersen, B. C. (1988). Financing constraints and corporate investment. *Brookings Papers on Economic Activity* 141–195.

Ferri, G. & Kang, T. S. (1999). The credit channel at work: lessons from the republic of Korea's financial crisis. *World Bank Policy Research Working Paper 2190.*

Gambacorta, L. & Marques-Ibanez D. (2011). The bank lending channel: Lessons from the Crisis. *BIS Working Paper No. 345, May.*

Gertler, M. & Gilchrist, S. (1993). The role of credit market imperfections in the monetary transmission mechanism: Arguments and evidence. *The Scandinavian Journal ofEconomics 95*(1), 43 –64.

Gertler, M., & Gilchrist, S. (1994).Monetary policy, business cycles, and the behavior of small manufacturing firms. *The Quarterly Journal of Economics 109(2), 309–340.*

Granger, C. M. J. (1969). Investigating causal relations by econometric models and gross-spectral methods, *Econometrica, 37,* 424 – 438.

Gujarati, D. N. (2004). *Basic econometrics (4th Ed.)* McGraw-Hill, New York.

João B. R., Barroso, R. B., Gonzalez, B. F. & Nazar V. D. (2017). Credit supply responses toreserve requirement: loan-level evidence from macro prudential policy. *Banco Central do Brasil. Working Paper Series 467*.

John, N. N. U. & Onwubiko, N. D. (2013). Challenges of bank credit among small and medium enterprises in Nigeria. *Journal of Economics and Sustainable Development, 4*(6), 84-90.

Karimo, T. M. & Ogbonna, O.L. (2017). Financial deepening and economic growth nexus inNigeria: Supply-Lead ing or Demand-Following? *Economies. MPDI Articles.*

Kashyap, A. K. & Stein, J. C. (2000). What do a million observations on banks say about thetransmission of monetary policy? *American Economic Review 90*(3, 407–428.

Kashyap, A. K. & Stein, J. C. (1995). The impact of monetary policy on bank balance sheets. *Carnegie-Rochester Conference Series on Public Policy 42*(1), 151–195.

Kashyap, A. K. & Stein, J. C. (2004). Cyclical implications of the Basel II capital standard. Federal Reserve Bank of Chicago *Economic Perspectives* First Quarter, *18–31.*

Kashyap, A. K., Lamont, O. A. & Stein, J. C. (1994). Credit conditions and the cyclical behavior of inventories. *The Quarterly Journal of Economics, 109*(3), 565–592.

Kashyap, A. K., Stein, J. C. & Wilcox D. W. (1996). Monetary policy and credit conditions: evidence from the composition of external finance: Reply. *American Economic Review 86*(1): 310–314.

Kishan, R. P. & Opiela, T. P. (2000). Bank size, bank capital, and the bank lending channel. *Journal of Money, Credit and Banking 32*(1), 121–141.

Mitku, M. Y. (2018). Lending and cash required reserve: Empirical evidence from Ethiopian commercial bank. *European Scientific Journal.14, (13), 179-189.*

Mohammed, A. & Simon, W. (2008). The impact of monetary policy on banks' credit in Ghana. AERC Paper TI-I, Nairobi Kenya.

Nasko, A. M. (2016). Impact of monetary policy on the economy of Nigeria. *Pyrex Journal ofBusiness and Finance Management Research, 2*(3), 163-179.

Nwoko, N. M., Ihemeje, J. C. & Anumadu, E. (2016). The impact of monetary policy on the economic growth of Nigeria. *An International Multi-disciplinary Journal, Ethiopia, 10(3),* 192-206.

Oliner, S. D. & Rudebusch, G. D. (1996). Is there a broad credit channel for monetary policy? *Federal Reserve Bank of San Francisco Economic Review, 1, 3–13.*

Olorunmade, G., Samuel, O.J., & Adewole, J. A. (2019). Determinant of private sector credit and its implication on economic growth in Nigeria: 2000-2017. *American Economic and Social Review, 5* (1), 45-60.

Otalu, A. M. (2014). Monetary policy and commercial banks performance in Nigeria: an assessment of credit creation role. *The International Journal of Business and Management, 2*(7), 45 -51.

Ovat, O. O. (2016). Commercial banks' credit and the growth of small and medium scaleenterprises: The Nigerian experience. *Journal of Economics and Finance, 7*(6), 23-30. Rychtárik, Š. (2009). Liquidity scenario analysis in the Luxembourg banking sector. *BCDL Working Paper, 41.*

Timsina, N. (2024). Impact of bank credit on economic growth in Nepal. *NRB WorkingPaper No. 22; 2014.*

Toby, A. J. & Zaagha, A. S. (2020). Central bank policy and private sector funding in Nigeria: A Multi-Variant Study. *Journal of Strategic and Internet Business, 4*(2), 899-923.

Zaagha, A. S. & Murray, M. E. (2020). Deposit money bank policy and private sector funding: A multi-dimensional study from Nigeria. *Australian Finance & Banking Review, 4*(1), 18-36.

Zaagha, A. S. (2020). Money supply and private sector funding in Nigeria: A Multi-Variant Study. *Asian Finance & Banking Review; 4*(2), 24-41.

Empirical Evidence from Nigeria: The Role of Government in International Trade

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

Abstract
One of the aims of government is to impact the economy positively and in so far international trade is a part thereof, it is expected that government activities, operations and policies such as government expenditure, government revenue, and monetary policy should be relevant tools for influencing trade both domestically and internationally. In this study, the role of government in international trade in Nigeria was investigated. The study specifically aims to determine the impact of government fiscal and monetary operations and policies on international trade in Nigeria. Thus, government expenditure, government revenue, monetary supply and exchange rate were examined vis-à-vis their impacts on international trade in Nigeria during the period of 1981 to 2020. Vector Autoregression (VAR) and Pearson correlation techniques were employed in the analysis of the annual time series data obtained from Central Bank of Nigeria's statistical bulletin. The VAR estimates are of the revelation that government expenditure exerts positive and significant impact on international trade in Nigeria unlike government revenue, money supply, and exchange rate which have negative and non-significant impact on international trade in the country. Also established in this study via Pearson correlation test is a very strong positive and significant correlation between international trade and each of government revenue, government expenditure, money supply and exchange rate. The study concludes that government impacts positively on international trade in Nigeria. It can therefore be recommended that government fiscal policy instrument of government expenditure should be employed by Nigerian government to positively project the country in good light among comity of countries by investing in capital-producing goods and services that will make Nigeria a producing country rather than a consuming country.

Keywords: International Trade, Government Expenditure, Government Revenue, Foreign Trade, Fiscal Policy, Monetary Policy, Nigeria.

Capital Market Reforms and Economic Growth in Nigeria

EDEH, Mark Bekweri
Department of Banking and Finance
Rivers State University, Port Harcourt, Nigeria
IWEDI, Marshal
Department of Banking and Finance
Rivers State University, Port Harcourt, Nigeria

Abstract
The capital market plays a pivotal role in driving economic expansion by facilitating the sourcing of equity capital and long-term developmental funding for critical infrastructure projects. This paper examines the significance of capital market reforms in Nigeria's pursuit of sustainable economic growth. The study underscores the economic benefits of well-developed capital markets, including improved access to funding, enhanced investor confidence, and the stimulation of economic growth. It delves into the various capital market reforms implemented in Nigeria, highlighting initiatives such as the establishment of the Securities and Exchange Commission (SEC), demutualization of the Nigerian Stock Exchange (NSE), market infrastructure upgrades, and the introduction of online trading platforms, among others. These reforms collectively aim to create a transparent, efficient, and investor-friendly capital market ecosystem. The impact of these reforms on economic growth is explored, emphasizing their role in attracting investments, supporting business expansion, and diversifying investment portfolios. Challenges such as liquidity issues, investor education gaps, and regulatory shortcomings are identified, suggesting that future reforms should focus on enhancing corporate governance, market liquidity, and investment options. The paper concludes by emphasizing that ongoing commitment to reforms and the cultivation of transparency and innovation are essential for the capital market to continue catalyzing Nigeria's economic growth and development.

Keywords: Capital market reforms, economic growth, investor confidence, regulatory framework, sustainability reporting

Introduction

The capital market functions as a specialized financial arena with a pivotal role in fostering economic expansion. This means that it is a platform where equity capital and extended-term developmental funding for critical infrastructure projects like roads, utilities, housing, energy, and telecommunications are sourced to yield economic gains. These endeavors are funded using bonds and asset-backed securities, facilitating enduring growth and sustainable development over the long term (Onuoha, Okoye & Chika, 2021). The capital market exerts a favorable impact on the advancement of economic and financial systems, presenting numerous benefits. Consequently, prioritizing the cultivation of the capital market remains a pivotal concern for a nation's economy and financial structure (Sprčić & Wilson, 2007; Imade, 2021).

The capacity of the capital market to facilitate the mobilization and allocation of savings and investments from various economic entities contributes significantly to the pursuit of sustainable economic growth (Vincent, Mairafi & Abdullahi, 2021). In the realm of financial development, the capital market assumes a crucial role, imparting a substantial impetus to overall economic advancement

The task of upholding this economic sustainability rests with the Securities and Exchange Commission (SEC) in Nigeria, established in 1978. This regulatory body has spearheaded several initiatives aimed at advancing the capital market's capabilities to serve as a conduit for enduring financial support, ultimately propelling the trajectory of economic growth.This underscores the vital nature of optimal capital market reforms in driving economic progress, particularly within developing nations, both within their domestic contexts and on the global stage.

Economic growth pertains to the expansion of economic activities throughout a given economic cycle, characterized by an upsurge in the production of goods and services for the nation. This growth is typically gauged through metrics such as the Gross Domestic Product (GDP), encompassing both Nominal GDP, reflecting unadjusted or current prices, and Real GDP, which has been corrected for inflationary effects (CBN, 2016). Specifically, Nominal GDP reflects the GDP without any adjustments, while Real GDP accounts for inflationary influences.

The quantified advancement in real Gross Domestic Product (GDP) constitutes the essence of economic growth. Numerous determinants contribute to this growth, encompassing variables such as

the investment ratio, human capital, and research and development (Reza, Fan, Reza & Wang, 2018). On the other hand, capital market reforms refer to deliberate changes, adjustments, or improvements made to the structure, regulations, practices, and functioning of a country's capital market. Capital market reforms are typically driven by the need to align the market with international best practices, attract foreign investment, promote economic growth, and safeguard the interests of investors. Governments, regulatory bodies, market participants, and international organizations often collaborate in implementing these reforms to create a robust and well-functioning capital market ecosystem.

However, back home in Nigeria capital market reforms play a pivotal role in shaping the country's economic growth trajectory. This means that a robust and efficient capital market is essential for mobilizing savings, allocating resources, and facilitating investments in an economy. In the context of Nigeria, these reforms have gained prominence as the country seeks to diversify its economy, attract foreign investments, and achieve sustainable economic growth.

Importance of Capital Market Reforms

According to Kocha and Iwedi (2023) capital market reforms can lead to several economic benefits.

A well-developed capital market improves access to funding for businesses, reduces reliance on bank financing, and encourages long-term investments.

Reforms also foster investor confidence, enhance transparency, and attract both domestic and foreign investments.

In emerging economies like Nigeria, capital market reforms can stimulate economic growth by channeling funds into productive sectors and promoting entrepreneurship.

Capital Market Reforms in Nigeria

Over the past decades, Nigeria has undertaken various capital market reforms to strengthen its financial sector. These reforms have encompassed changes in regulatory frameworks, market infrastructure, investor protection mechanisms, and financial products. Key reforms include

Establishment of Securities and Exchange Commission (SEC): The creation of SEC in 1979 marked a significant milestone in regulating and overseeing the Nigerian capital market. SEC plays a crucial role in ensuring investor protection, market integrity, and transparency.

Demutualization of the Nigerian Stock Exchange (NSE): The demutualization of the NSE in 2020 transformed it from a member-owned organization into a publicly listed company. This change aims to enhance governance, transparency, and attract strategic investments.

Market Infrastructure Upgrade: Modernization of market infrastructure, including trading platforms and settlement systems, has been ongoing to improve efficiency and reduce transaction time.

Introduction of Online Trading Platforms: The introduction of online trading platforms has made it easier for investors to trade securities and access market information remotely.

e-Dividend Mandate Management System (e-DMMS): The e-DMMS aims to eliminate issues related to unclaimed dividends by ensuring that shareholders receive their dividends directly to their bank accounts.

Introduction of Bond Market: The development of the bond market has diversified investment options, allowing both the government and corporations to raise capital through the issuance of bonds.

Introduction of Real Estate Investment Trusts (REITs): REITs allow investors to invest in real estate assets and receive regular income from rental proceeds and capital gains.

Risk-Based Capital Adequacy Framework: This framework was introduced for capital market operators to ensure they maintain sufficient capital to cover potential risks and enhance financial stability.

Corporate Governance Reforms: Enhancing corporate governance practices for listed companies and market participants is aimed at improving transparency, accountability, and investor confidence.

Investor Education and Awareness Programs: Various initiatives have been launched to educate investors about market dynamics, investment options, and risks to make informed decisions.

Margin Lending Regulations: Margin lending regulations have been introduced to ensure that investors trade with a proper understanding of the risks associated with borrowing to invest.

Introduction of Exchange-Traded Funds (ETFs): ETFs provide investors with exposure to diversified portfolios of securities and are traded on stock exchanges like individual stocks.

Mergers and Acquisitions Guidelines: SEC has established guidelines for mergers, acquisitions, and takeovers in the capital market to ensure transparency and protect the interests of shareholders.

Commodity Trading Platform: The establishment of a commodity trading platform aims to promote trading in agricultural commodities and enhance market access for farmers and traders.

Sustainability Reporting Requirements: SEC has introduced sustainability reporting requirements for listed companies to encourage environmental, social, and governance (ESG) practices.

SME Growth Board: The NSE launched a Growth Board specifically aimed at providing a platform for SMEs to access capital and grow their businesses.

Capital Market Master Plan (2015-2025) The Capital Market Master Plan outlines a comprehensive roadmap for the development of Nigeria's capital market, focusing on market structure, investor protection, and product innovation.

These reforms collectively aim to create a more transparent, efficient, and investor-friendly capital market in Nigeria, which can contribute to economic growth and development.

Impact on Economic Growth

Capital market reforms have had a discernible impact on Nigeria's economic growth. A more transparent and efficient capital market attracts both local and foreign investments, which, in turn, fosters economic activity and job creation. Enhanced access to capital for businesses, including small and medium-sized enterprises (SMEs), supports their expansion and innovation efforts (Okey-Nwala, Wachukwu and Iwedi, 2023). Additionally, the availability of diverse financial instruments, such as bonds and derivatives, helps manage risk and diversify investment portfolios.

Challenges and Future Directions

Despite the progress made, challenges remain in Nigeria's capital market landscape. Issues such as low liquidity, inadequate investor education, and regulatory gaps need to be addressed for sustained growth. To achieve this, future reforms could focus on improving corporate governance practices, enhancing market liquidity, and expanding the range of investment options.

Conclusion

Capital market reforms have become a cornerstone of Nigeria's economic growth strategy. These reforms have transformed the capital market landscape, attracting investments, improving investor confidence, and facilitating access to capital for businesses. However, the journey towards a fully developed and efficient capital market is ongoing. Continued commitment to reforms, addressing challenges, and fostering an environment of innovation and transparency will be critical to ensuring that Nigeria's capital market continues to contribute significantly to the country's economic growth and development.

References

Bello, U., Zubairu, U and Ibrahim, U.A. (2022). Impact of capital market performance on economic growth in developing nations: A qualitative approach. *Journal of Service Science and Management,* 15, 340-349. doi: 10.4236/jssm.2022.153020.

Imade, E. O. (2021). Capital market performance and economic growth in Nigeria and the United States of America. *Academic Journal of Current Research,* 8, 57-79.

Kocha, C.N. & Iwedi, M. (2023). Capital market performance and economic growth in Nigeria. *ISRG Journal of Multidisciplinary Studies*, 1(1); 1-8.

Okey-Nwala, P.O., Wachukwu, I.P. & Iwedi, M. (2023). Financial service accessibility and economic growth: econometric evidence from Nigeria. *ISRG Journal of Economics, Business & Management,* 1(1), 21-27.
Onuoha, O. C., Okoye, N. J., & Chika, U. F. (2021). Exploring the nexus between corruption and all share index of Nigeria capital market. *International Journal of Research and Innovation in Social Science*, 5, 707-715.
Sprči, D. M., & Wilson, I. (2007). The development of the corporate bond market in Croatia. *EuroMed Journal of Business,* 2, 74-86. https://doi.org/10.1108/14502190710749965
Vincent, H. S., Mairafi, S. L., & Abdullahi, Y. U. (2021). Effect of fixed income securities on capital market growth in Nigeria. *Social and Administrative Sciences Review*, 7, 262-283.

Challenges and Adoption of Blockchain Technology in Nigeria

Marshal Iwedi
Department of Banking and Finance,
Faculty of Management Sciences,
Rivers State University, Nkpolu-Oroworukwo, Port Harcourt.
marshal.iwedi@ust.edu.ng
James Daniel Egileoniso
Department of Banking and Finance,
Faculty of Management Sciences,
Rivers State University, Nkpolu-Oroworukwo, Port Harcourt.

Abstract
Blockchain technology has emerged as a transformative innovation with the potential to reshape various sectors of the global economy. While its applications are diverse and promising, its adoption in Nigeria, like in many other developing nations, faces a unique set of challenges. This study explores the transformative potential of blockchain technology in Nigeria, Africa's largest economy. The technology's core features, including decentralization, immutability, and transparency, open avenues for innovative solutions across various sectors. Specifically, in the financial industry, blockchain facilitates secure peer-to-peer transactions, reducing reliance on traditional intermediaries like banks. Additionally, it enhances transparency and security in financial transactions and cross-border payments. In supply chain management, blockchain establishes immutable records, mitigating fraud and errors. Nigeria, with a substantial unbanked population, stands to benefit from decentralized financial systems enabled by blockchain. Furthermore, it has the potential to streamline remittance processes, reducing costs and transaction times. The study highlights that blockchain can revolutionize government operations, enhancing efficiency, transparency, and security in processes such as voting and procurement. While acknowledging the technology's potential, challenges such as awareness, regulatory frameworks, and technical infrastructure are identified. Recommendations for adoption include widespread education, robust regulatory frameworks, infrastructure investment, and industry collaboration. By addressing these challenges, Nigeria can position itself as a frontrunner in blockchain innovation, utilizing the technology to overcome existing hurdles and drive sustainable development.
Keywords: Blockchain adoption, blockchain challenges, regulatory framework, infrastructure constraints, blockchain security

1. Introduction

Blockchain technology, the underlying technology of cryptocurrencies like Bitcoin, has garnered significant attention globally for its potential to disrupt various industries. Blockchain technology can revolutionize the financial industry by enabling secure and efficient peer-to-peer transactions without the need for intermediaries such as banks. It can also facilitate cross-border payments, reduce fraud, and provide greater transparency in financial transactions (Chen & Bellavitis, 2019). According to Dutta, Choi, Somani, and Butala (2020), blockchain holds the capability to revolutionize supply chain management through the establishment of clear, unchangeable records detailing the journey and source of goods. This can help reduce fraud, counterfeiting, and errors in the supply chain. Nigeria as an economy has a large population, and a significant portion of it is unbanked or underbanked.

In their study, Iwedi, Kocha, Edeh and Turakpe (2023) reveal that approximately 64 million out of Nigeria's nearly 200 million population are still without a bank account or access to a financial institution or mobile money platform. Their findings indicate that Nigeria is one of seven countries globally where half of the world's population lacks banking services or financial inclusion. That is to say that block chain technology can enable the creation of decentralized financial systems, allowing people to access and manage their finances without relying on traditional banks (Abdulhakeem, & Hu, 2021).

Rella (2019) argues that Nigeria benefits significantly from remittances sent by the Nigerian diaspora. Utilizing blockchain-based systems has the potential to streamline the remittance process, leading to potential reductions in both costs and transaction times. According to Rathee and Singh (2021), blockchain offers a secure and tamper-proof method for handling identities, which holds particular significance in countries like Nigeria, where identity fraud poses a substantial concern.

Blockchain technology holds the potential to enhance government operations by streamlining processes, cutting costs, and elevating trust and accountability. Its anticipated benefits in government

encompass heightened efficacy, openness, and security across functions like voting, procurement, and citizen services (Cagigas Clifton, Diaz-Fuentes & Fernández-Gutiérrez, 2021). To illustrate, blockchain could facilitate secure and transparent e-voting systems, mitigating the threat of fraudulent activities and bolstering voter confidence (Kshetri & Voas, 2018).

Moreover, it has the capacity to enable efficient and transparent monitoring of procurement procedures, thus reducing opportunities for corruption and enhancing overall responsibility. Nevertheless, the sometimes inflated expectations surrounding blockchain technology have led to the recognition that its integration into government operations is not without significant challenges (Park et al., Citation 2021). Anticipated expenses and risks linked with implementing blockchain in government encompass the substantial initial investment, the need for specialized technical expertise, and potential hurdles related to scalability and interoperability.

It is in the light of the above that this paper provides a comprehensive overview of the potential impact of blockchain technology across various sectors, emphasizing its transformative potential in finance, supply chain management, and government operations. It highlights the specific challenges and opportunities faced by Nigeria, particularly in addressing financial inclusion and streamlining remittances. The discussion underscores the importance of blockchain in enhancing transparency, security, and accountability in government functions, while acknowledging the complexities and investment required for successful integration. Ultimately, the text sets the stage for a detailed exploration of blockchain's role in Nigeria's economic landscape, presenting a nuanced understanding of both its promise and the hurdles ahead.

1.2 What is Blockchain Technology?

Blockchain technology is a revolutionary concept that has gained significant attention in recent years. It is a decentralized system that allows for the secure and transparent recording of transactions across multiple computers. At its core, blockchain technology is a digital ledger that enables the creation of a permanent and tamper-proof record of transactions. The technology was initially introduced to support cryptocurrencies like Bitcoin. However, its potential applications extend far beyond the realm of digital currencies. Blockchain technology has the potential to transform various industries, including finance, supply chain, healthcare, and more. The underlying principle of blockchain is the distribution of data across multiple computers, known as nodes. Each node maintains a copy of the ledger, and any changes made to the ledger are verified by consensus among the nodes. This decentralized nature ensures that no single entity has control over the data, enhancing the security and integrity of the system.

2. Current State of Blockchain Technology in Nigeria

Nigeria, being Africa's largest economy, has shown significant interest in blockchain technology. The country recognizes the potential of this technology to drive innovation, improve transparency, and tackle challenges such as corruption and fraud. As a result, various organizations, both in the public and private sectors, have embarked on blockchain initiatives.

One notable example is the Nigerian Inter-Bank Settlement System (NIBSS), which has explored the use of blockchain for identity management and transaction verification. The Central Bank of Nigeria has also expressed interest in leveraging blockchain technology to enhance the efficiency of payment systems and reduce transaction costs.

Furthermore, several Nigerian startups have emerged in the blockchain space, focusing on areas such as remittances, supply chain management, and financial inclusion. These startups are leveraging blockchain technology to address existing inefficiencies and provide novel solutions to long-standing problems.

Cryptocurrency trading and investments: Nigeria has witnessed a surge in cryptocurrency trading and investment, particularly among the youth population. Platforms like Binance and local exchanges facilitate the buying and selling of cryptocurrencies.

Regulatory framework: The Nigerian government has expressed both curiosity and caution regarding blockchain and cryptocurrencies. There is a need for a clear and comprehensive regulatory framework.

3. Challenges to Blockchain Adoption in Nigeria

Despite the enthusiasm surrounding blockchain technology in Nigeria, several challenges hinder its widespread adoption. One of the primary challenges is the lack of awareness and understanding of the technology. Many individuals and organizations are still unfamiliar with blockchain and its potential benefits. This lack of knowledge poses a barrier to adoption, as people are hesitant to embrace something they do not fully comprehend. Educational initiatives and awareness campaigns are necessary to bridge this knowledge gap.

Another significant challenge is the regulatory environment. While Nigeria has shown interest in blockchain technology, there is still no comprehensive regulatory framework in place. A well-defined regulatory framework is needed to provide legal clarity and foster innovation while ensuring consumer protection and national security. Uncertainty regarding legal and regulatory compliance creates a sense of ambiguity for businesses looking to adopt blockchain solutions. Clear guidelines and regulations are necessary to foster a conducive environment for innovation and investment in the blockchain space.

Additionally, the limited technical infrastructure in Nigeria poses a challenge to blockchain adoption. The technology requires a robust and reliable internet connection, which is not accessible to all parts of the country. Inadequate internet infrastructure hinders the seamless implementation and utilization of blockchain technology, limiting its reach and impact.

4. Opportunities and Potential Benefits

Despite the challenges, there are significant opportunities and potential benefits associated with the adoption of blockchain technology in Nigeria. One of the key advantages is the potential to improve transparency and reduce corruption. By leveraging blockchain, the government can create a transparent and immutable record of transactions, making it difficult for corrupt practices to go unnoticed.

Blockchain technology also has the potential to revolutionize the financial sector in Nigeria. It can enhance financial inclusion by providing access to banking services for the unbanked population. Blockchain-based solutions can enable secure and low-cost remittances, facilitate microfinance, and streamline the lending process. These advancements can empower individuals and small businesses, contributing to economic growth and development.

Moreover, blockchain technology can play a crucial role in supply chain management. Nigeria, being a major exporter of agricultural products, can benefit from blockchain-based systems that enable traceability and provenance verification. This can enhance product quality, reduce fraud, and open up new export opportunities for Nigerian producers.

4. 1 Strategies for Adoption

Education and Awareness: Launch nationwide awareness campaigns and educational programs targeting various stakeholders.

Regulatory Framework: Collaborate with international organizations and experts to develop a balanced regulatory framework.

Infrastructure Investment: Government and private sector collaboration to improve technological infrastructure in underserved areas.

Industry Collaboration: Encourage partnerships between blockchain startups, traditional industries, and government agencies to pilot blockchain solutions.

5. Conclusion

Blockchain technology holds immense potential for Nigeria. It has the power to transform various sectors, improve transparency, and drive economic growth. However, several challenges need to be addressed for widespread adoption to occur. These challenges include awareness and understanding, regulatory frameworks, and technical infrastructure.

To fully harness the benefits of blockchain technology, it is crucial for stakeholders, including the government, businesses, and individuals, to collaborate and invest in blockchain education and infrastructure. By doing so, Nigeria can position itself as a leader in blockchain innovation and leverage this technology to overcome existing challenges and drive sustainable development.

References

Abdulhakeem, S. A., & Hu, Q. L. (2021). Powered by blockchain technology, DeFi (Decentralized

Finance) strives to increase the financial inclusion of the unbanked by reshaping the world's financial system. *Modern Economy*, 12(1), 1–16. https://doi.org/10.4236/me.2021.121001

Cagigas, D., Clifton, J., Diaz-Fuentes, D., & Fernández-Gutiérrez, M. (2021). Blockchain for Public Services: A Systematic Literature Review. *IEEE Access*. 9: 13904–13921. https://doi.org/10.1109/ACCESS.2021.3052019

Chen, Y., & Bellavitis, C. (2019). Decentralized finance: Blockchain technology and the quest for an open financial system. Stevens Institute of Technology School of Business Research Paper.

Dutta, P., Choi, T. M., Somani, S., & Butala, R. (2020). Blockchain technology in supply chain operations: Applications, challenges and research opportunities. Transportation Research Part E: Logistics and Transportation Review, 142, 102067.

Iwedi, M, Kocha, C., Edeh, M.B. & Turakpe, M.J. (2023). Banking the unbanked in Nigeria: the role of financial technology, *Journal of International Money, Banking and Finance*, 4(1), 15-22. https://doi:10.47509/jimbf.2023. v04i01.02

Kshetri, N., & Voas, J. (2018). Blockchain-enabled e-voting. *IEEE Software*, 35(4), 95–99.

Park, S., Specter, M., Narula, N. & Rivest, R. L. (2021). Going from bad to worse: From internet voting to blockchain voting. *Journal of Cybersecurity*, 7(1) tyaa025. https://doi.org/10.1093/cybsec/tyaa025

Rathee, T. & Singh, P. (2021) "A systematic literature mapping on secure identity management using blockchain technology," Journal of King Saud University - Computer and Information Sciences. King Saud bin Abdulaziz University, 2021. doi: 10.1016/j.jksuci.2021.03.005.

Rella, L. (2019). Blockchain technologies and remittances: From financial inclusion to correspondent banking. Front. Blockchain 14, 14. doi:10.3389/fbloc.2019.00014.

Comparative Analysis of Nigerian and South Africa Banking Sector: A Critique Approach

Henry Waleru Akani
Department of Banking and Finance,
Rivers State University Nkpolu - Port Harcourt, Rivers State, Nigeria
akani.waleru@ust.edu.ng
Chukwuemeka Anyamaobi
Department of Banking and Finance,
Rivers State University Nkpolu - Port Harcourt, Rivers State, Nigeria
anyamaobi.chukwuemeka@ust.edu.ng
Lucky Anyike Lucky
Imo State University, Owerri
Imo State, Nigeria

Abstract

This study critically compared Nigeria banking system with the South African banking. The objective was analyzed and ascertained the development and the performance of Nigeria banking sector with the South African banking sector. The study adopted descriptive methods; data were sourced from the Federal Reserve Economic Data Base and Central Bank of Nigeria circulars. The study compared private sector credit, number of deposits, number of banks branch per 100,000, 5 banks assets concentration, bank return on assets, bank deposit to gross domestic product ratio and registered number of mobile agent outlet. The study revealed that South African banks are better and stronger than Nigerian banks in terms of credit to private sector, number of banks per 100, 000, Banks Assets Concentration, Bank Return on Assets and Bank Deposit to Gross Domestic Product Ratio while Nigerian banks are better and stronger in terms of number of depositors and number of registered mobile agent. From the findings the study concludes that South African banks are more developed than Nigerian banks. The study recommends for further strengthening of reforms in the Nigerian banking sector to meet its international peers.

Keywords: **Banking Sector,** Banks Assets Concentration, Bank Return on Assets, Bank Deposit to Gross Domestic Product Ratio.

Introduction

Over the years various scholars and authors are of the view that the banking sector plays a significant and important role in the growth and development of any economy. (Akani, 2020, Akani & Lucky, 2023). This is why banks are treated "special" in any economy and reasons have been advanced for "special" treatment of banks which include. The transmission of monetary policy, recent changes in international economic crises, structural change in banking and the contagious effects on banking. (Toby, 2006 & Akni, 2019).

The banks are the sole transmission channels for monetary policy and enhance the realization of macroeconomic and monetary policy goals. The intermediary function bridges the savings and investment gap in the economy and facilitates an efficient payment system. The emergence of bank and the banking business is a deliberate and conscious effort of the modern man to bridge gaps associated with an un-intermediated economy.

Generally, financial intermediation is successful to the extent that it is characterized by confidence, cost and convenience (Okonji-Iweala, 2012).The critical role that banks play in financing real sectors in Nigeria dates back to post independence, their primary role in these sectors is credit extension and economic stabilization among others. The banking institutions in Nigeria is made up of investment, commercial and development banks have been the most effective in carrying out its function (Toby & Peterside, 2014).

The banking sector is one of the most important sectors for any economy as it can serve as a tool for development if run like a well-oiled machine. Ideally, for an economy to grow optimally and get sturdy, its banking industry should not be ignored. For Africa, its two biggest economies are seen to be far wide apart in their respective banking industries, on an asset scale. Topping the banking charts in Africa is a South African bank. In fact, South Africa is home to the top three banks in Africa. (African Development Bank, 2021).

The development of banking in Africa followed the demand of exchange networks from traditional indigenous economies to colonial exchange with the European world. The paper shows the success-

ful development of banking in Africa since the late 1990s as new entrepreneurial opportunities are taken advantage by the new African entrepreneurial class.
However, the principles of sound banking in Africa are no different from banking in other parts of the globe; it only took African entrepreneurs the transitional period after decolonisation to align to the market. In Africa the commercial banking sector remained conservative and controlled by foreign shareholders throughout the period of colonial control. Since the banks remained committed to their traditional functions, these institutions were not developmentally inclined. Growing indigenous opposition and distrust of the banking sector developed, which led to the insistence on the establishment of local central banks. Suspicion against lending policies of the foreign-owned banks was not unsubstantiated, but the banks were commercial institutions and not the new generation development banks.
Banking sector development in Nigeria was embarked upon to liberalize the sector to promote efficiency in resource allocation, expansion of the savings mobilization base, promotion of investment and growth through market based interest rate. This started with the deregulation of interest rate in 1986, followed by the regulation era in 1993 caused by the banking crisis, followed by the liberalization and the adoption of universal banking in 1999, and the banking consolidation of 2004 (Oladejo & Oladipupo, 2011).
However, the challenges facing banking development in achieving the development of the economy ranges from macroeconomic and monetary policy shocks in the system. For instance, the recent withdrawal of public sector deposits from the banking system by Central Bank of Nigeria to control excess liquidity have the capacity of contracting bank lending to the real sector.
Nigeria and South Africa are considered the largest economies in Africa. The first sort of any banking activity in Nigeria has its history in the colonial period. In 1892, the African Banking Corporation (ABC) was incorporated in Britain at the instance of Elder Dempster and Company Ltd, a local agent of a shipping company based in Liverpool. The ABC, fully owned and operated by foreigners, became the first-ever bank to be established in Nigeria which later acquired the African Banking Corporation, was established in 1894. The Anglo-Africa Bank Ltd, the first indigenous bank and the Colonial Bank followed in 1902 and 1917 respectively. Thereafter, the establishment of banks became less cumbersome and occurred regularly.
From 1945 to 1952 alone, for instance, over 145 banks were established by local and foreign investors. This era became known as the period of unregulated banking. The emergence of more banks, many without sound financial backing and appropriate management team, soon led to a spate of constant devastating distresses, partly owing to lack of regulation. The 1952 Banking Ordinance" was the first-ever attempt to regulate banking activities in Nigeria. This period is popularly called the era of regulated banking. Other major eras that characterized the banking industry in Nigeria include Era of Free Banking in Nigeria 1892-1952; Period of Regulated banking 1952 – 1986; Era of Deregulation, 1986-2004; the Era of Banking Consolidation and the Era of Stringent Banking Regulation, 2009 – 2015.
FNB is the oldest bank in South Africa. It traces its origins back to the Eastern triocrees Province Bank, which was formed in Grahanstown in 1838. At that time the bank financed the wool export boom in the district. By 1874, the bank had four branches at Grahamstown, Middelburg Cradock and Queenstown. Due to a recession the bank was bought out in 1874 by the Oriental Bank Corporation (OBC). However, as a result of financial difficulties that the Oriental Bank Corporation was experiencing in India, it decided to withdraw from South Africa and thus the Bank of Africa was formed in 1879 to take over the OBC's business in South Africa. From the above, this paper compared Nigeria bank with South Africa using relevant indicators.

Literature Reflections

Banking sector reform

Banking sector reforms refer to the changes or shifts in banking processes and practices imposed on banks by banking systems regulators (Olweny & Shipho 2011). Reforms are predicated upon the need for reorientation and reposition of existing status quo in order to attain an effective and efficient state. Reforms are deliberate actions by the government to fast track, jump start and consolidate specified sector of the economy to achieve desired objectives. Thus, banking reforms are deliberate policy response to correct perceived or impending financial crises and subsequent failure. Reforms in the financial industry are aimed at addressing issues such as corporate governance, risk management and operational inefficiencies. The vortex of most banking reforms is around firming up capitalization. Banking reforms are primarily driven by the need to achieve the objective of consolidation, competition and convergence in the financial architecture. Banking reforms are normally carried out through banking sector deregulation.
Deregulation of the banking sector requires a set of indicators that can be used for effective policy formulation, implementation and evaluation (Osadume & Ibenta, 2018). As such, there is no precise definition in the literature of banking sector development. Fry (2008) observed that the key to banking sector development is the reduction and ultimate unification of fragmented financial markets. This involves a complete set of indicators mainly covering credit intermediation, liquidity management and the risk management characteristics of the financial system. Osuka and Osadume (2013) posited that it is hard to find an indicator that can directly measure the development of the banking sector.
The chequered history of banking sector reforms in Nigeria had its roots in the quest for repositioning of the financial institutions to meet the challenges in the competitive global market. Much as the Central Bank of Nigeria tried to evolve a seamless system capable of enthroning a regime of stability in the monetary policy, the results have created need for further reforms, to meet the challenges of the time. It is important to note that the reforms of the 'Banking Consolidation Era' which began in 2004 with the consolidation programme were necessitated by the need to strengthen the banks. The policy thrust at inception, was to grow the banks and position them to play pivotal roles in driving development across the sectors of the economy. As a result, banks were consolidated through mergers and acquisitions, raising the capital base from N2 billion to a minimum of N25 billion, which reduced the number of banks from 89 to 25 in 2005, as earlier mentioned. But beyond the need to recapitalize the banks, the regulatory reforms also focused on the following:

Risk-focused and rule-based regulatory framework; Zero tolerance in regulatory framework in data/information rendition/reporting and infractions; Strict enforcement of corporate governance principles in banking; Expeditious process for rendition of returns by banks and other financial institutions through e-FASS;

Revision and updating of relevant laws for effective corporate governance and ensuring greater transparency and accountability in the implementation of banking laws and regulations, as well as; the introduction of a flexible interest rate based framework that made the monetary policy rate the operating target. The framework has enabled the bank to be proactive in countering inflationary pressures. The corridor regime has helped to check wide fluctuations in the interbank rates and also engendered orderly development of the money market segment and payments system reforms, among others.

Mallam Sanusi Lamido Sanusi took over in 2009 and barely two months in office, had he empaneled a special joint committee of the Central Bank of Nigeria and the Nigerian Deposit Insurance Corporation to conduct a special examination of all 24 universal banks in Nigeria. The result showed weak corporate governance, operational indiscipline and global financial crisis as the major causes of the weakness and prescribed further decisive Banking Sector Reforms to forestall total collapse of the sector. There are strong indications that another banking reforms is being muted by the current CBN Governor, Mr. Godwin Emiefele, before the end of 2023

Recapitalization

The Nigerian banking sector consolidation was initiated to leverage the banking industry challenges poor performance and position the institutions to international standard. It is a component of corporate restructuring aimed at repositioning the organization for better performance. It involves a critical analysis of the financial statue of the target firm which considers the cash flow implication. The approach include the economic value approach, the book value approach, market to book value premiums, earnings per share approach and revaluation approach (Okereke, 2008).
The Nigerian banking industry witness another era in 2005 with the banking sector reform tagged

consolidation by recapitalization through Bank Consolidation. It was a strategy of meeting the 115 percent increase in capital base from N2 billion to N25 billion. The economic objective was to reposition and restructure the banking sector for effective intermediation function and leverage the deteriorating market value of Nigerian banks. It was expected to increase the market value, increase return on investment, maximize shareholders wealth, increase return on assets and capital employed (Nandi, 2009). The policy can said to have a two way effect on the market value of Nigerian banks. For instance the reduction of number of Nigerian banks from 89 to 25 and now to 20 while some banks deposit money banks. While some banks merge others were wholly taken over by other banks. The consequences is the high rates of competition in banking system which tend to move Nigerian banking system into monopoly where few banks dominate the banking industry.

According to the agency theory by Jensen and Meekling (1976) the agency problems arise when institutions merged and served to reduce agency costs borne by the majority of the owners. However the challenges in the deteriorating market value of Nigerian banks can be said to be that of management quality rather than Bank Consolidation. In the CAMELS analysis of banking system soundness, it can be considered that management quality is more important as other variable depend on management quality. For instance, less than five years after Bank Consolidation, market value of many banks are still very poor. The banking crisis of the 1980s and 1990s that damaged the market value of Nigerian banks was traced to poor management quality. The 2010 CBN banking examination revealed over N1trillion non-performing banks facilities. This will impact negatively to the market value of DMB in Nigeria.

The banking sector consolidation is an integral policy to strategically position Nigerian banks to be active player and not spectators in the emerging financial market. This was by the poor performance, poor rating and the Nigerian banking crisis of the 1980s and 1990s. Prior to the consolidation through Bank Consolidation most Nigerian banks have capitalization of less than US$10 million, the largest bank in Nigeria has capital base of US$240 million compared to US$526 million for the smallest bank in Malaysia. South Korea has eight banks with 4,500 branches compared to 89 banks in Nigeria with 3,225 branches. One bank in South African has assets base larger than the 89 banks in Nigeria. No Nigerian bank was among the first 1000 in the world and the first 100 in Africa. Nigerian banks were packet size banks (Toby, 2006).

Over the years Nigerian government through the regulatory authorities have introduce policies to preposition the banks for better market value. In 1990 Prudential Guidelines for licensed banks and Basle capital standard was introduced. In 1986 interest rate was deregulated and government shares were privatized. In 2000 Nigeria adopted fully the universal banking while in 2005 banking consolidation was introduced with recapitalization through bank consolidation.

Banking in South Africa

South Africa has established a well-developed banking system which compares favourably with those in many developed countries and which sets South Africa apart from many other emerging market countries. At the end of 2004, we find ourselves with a more mature banking sector, with a moderate level of private-sector indebtedness and a respectable and first-rate regulatory and legal framework. South African banks are well managed and utilise sophisticated risk-management systems and corporate-governance structures in conducting the business of a bank. South Africa's banks are regulated in accordance with the principles set by the Basel Committee on Banking Supervision. Consequently, our banks comply with international sound practice and offer a sophisticated banking system to the public. Customers have online, real-time, nationwide access to bank accounts 24 hours a day, every day of the year (Mboweni, 2004).

South Africa's political transformation, together with the relaxation of exchange controls and the liberalization of African economies, has resulted in South Africa becoming an increasingly important financial centre. South Africa is now also well positioned to provide global services through the international offices of our banks and the presence of international banks in South Africa. There are 38 registered banks in South Africa. This number consists of 15 South African controlled banks, 6 non-resident controlled banks (subsidiaries), 15 local branches of international banks, and two mutual banks. In addition, 44 international banks have authorised representative offices in South

Africa. Representative offices, however, may not take deposits. Five major groups continue to dominate the South African banking sector. These groups are the Absa group, the Standard Bank group, the FirstRand Bank group, Investec and Nedcor.

In 1994, these groups represented 83.8 per cent of the total assets of the banking sector and, currently, they represent 87.4 per cent of the banking sector. The remaining 12.6 per cent of assets in the banking sector are currently held by the other 31 banks, excluding the two mutual banks. Initially, the number of medium to small local banks increased steadily over the past decade. During, the latter part of 1999, however, these banks faced liquidity pressures, which led to many of these medium to small banks exiting from the banking system. This downward trend reached its lowest point with the placement of Saambou Bank into curatorship in February 2002 and the subsequent integration of BOE Bank into Nedbank (Mboweni, 2004)

From the last quarter of 1999 to the end of March 2003, some 22 banks exited the South African banking system. It can be said, however, that this phenomenon was due more to a consolidation of the broader banking sector than a failure of the medium to small banking sector. Currently, small local banks constitute 3.1 per cent of the total banking sector assets, in comparison to 21.7 per cent in 1994. As a result of the political isolation of South Africa in the mid-1980, international banks terminated their operations in South Africa. Immediately prior to the advent of the democratically elected government in 1994, few international banks were doing banking business in South Africa.

Amendments to the Banks Act in 1994, however, allowed not only representative offices and subsidiaries of international banks to be established in South Africa, but also branches of international banks. Following the opening of South Africa's financial system in 1994, international participation in the local banking industry increased significantly, from 3 per cent in 1994 to 9.5 per cent of total banking sector assets by the end of October 2004.

Following South Africa's re-entry into international financial markets in 1994, locally registered banks have increasingly been expanding their operations into other countries. At the same time, international banks have been expanding their operations into South Africa. Besides adding further depth and sophistication to the South African market, these foreign banks began to tap into the South African labour market. Consequently, the arrival of these predominantly resourceful and experienced banks posed formidable challenges to local banks. In a quest to survive and excel, South African banks had to devise means to adapt to the new terrain. As a result of the increased competition, lending margins have been placed under greater pressure, and several banks have had to expand their businesses and enter markets with slightly higher credit-risk profiles (Mboweni, 2004).

Currently, the major banks offer a wide range of services to both individual and corporate customers. One-stop relationship banking, with an emphasis on universal banking, instead of isolated services, has gained in importance during the past few years. Nevertheless, several banks, especially small local and foreign banks continue to service niche markets, where they hold some form of competitive advantage. Over the past decade generally, the South African banking sector remained fairly stable during the past decade. The first part of the past decade was characterized by global financial turbulence and banking crises in many countries. In general, the South African banking sector showed itself to be remarkably resilient during the crises experienced.

The latter part of the decade was characterized by a significant depreciation of the South African currency and, in 2002, we experienced our own banking instability. Fortunately, and owing particularly to the solid foundations upon which our banking system is based, 2003 and 2004 were marked by greater stability. It is common cause that the South African banking sector experienced certain mini-crises over the past decade. None was more concerning than the instability experienced by small to mid-sized banks during the period of the Saambou problem. Saambou Bank experienced a liquidity crisis, emanating from negative market perceptions, a profit-warning announcement and the sale of Saambou shares by two of the bank's executive directors (Mboweni, 2004). At the time, Saambou was the seventh largest South African bank and had both a large retail deposit base and a well-established branch network. In order to prevent a crisis of confidence in the small to mid-sized

banking sector, Saambou was placed under curatorship.
Unfortunately, this led to further withdrawals, not only from the smaller banks but also from larger banks. This loss of confidence significantly affected the sixth largest bank at the time, BOE Bank, indicating that the lack of confidence could move up the scale and not only down the scale. Since such a trend could not be supported, the South African Reserve Bank entered into consultations with the National Treasury, which ultimately issued a guarantee to all depositors that the government would fund their withdrawals. This action sent a signal to the market that the authorities were serious about maintaining the stability of the banking sector. Several lessons have been learnt from the small to mid-sized banking crises.
First, owing to the special nature of banks, all key players, including, for example, external auditors, analysts, the media and rating agencies, should appreciate the nature of banking and act responsibly when dealing with the banking sector. Second, the regulatory authorities must also be mindful of the fact that all their actions, combined and separately, constitute signals to the market and that greater problems may result if a bank in distress is not handled in a manner that provides certainty.
Third, the regulatory authorities have also learnt to treat with circumspect institutions that apply for a banking licence, but which have only the interests of the individual shareholder and not the interests of the depositor base in mind when making business decisions. An institution can no longer be allowed to be registered to conduct the business of a bank and, then, simply to ride on the coat tails of the name bank whilst at the same time not conducting deposit-taking business or not acting responsibly in the interests of the depositor base, but rather in the interests of an unobtainable share price.
Fourth, the Registrar of Banks needs to be mindful of boutique banks that are not fulfilling the definition of the acceptance of deposits form the general public and, on the asset side of their balance sheet, are not acting "in the interest of the general public. Fifth, as a result of the problems prevalent in the small to mid-sized banking sector during the past decade, and especially towards the latter part of the decade, the South African Reserve Bank adopted a policy framework for dealing with banks in distress. This policy framework serves to provide clarity on the process in place for not only dealing with banks in distress, but also preventing problems in one bank spreading to other banks. It is, however, only a framework to guide the approach taken, and the particular approach has to be decided on a case-by-case basis, depending on the specific circumstances.
Sixth, in addition to the policy framework for dealing with banks in distress, the Registrar of Banks emphasized the importance of sound corporate governance in banks. In order to investigate the standard of corporate governance within the South African banking sector, the Registrar appointed Adv J F Myburgh SC to conduct a review of the status of compliance with sound corporate governance practices within the five largest banking groups in South Africa during 2002.
The four pillar policy relates to having a minimum number of substantial banks (so called "pillars") on which the domestic banking industry relies and discourages the merger between any of those four banks. The primary reasons for such a policy relate to the maintenance of minimum levels of competition, in the interests of prudential and systemic stability, in order to avoid the spread of risk and to promote reliance on a broader platform of institutions. Currently, Australia relies heavily on the "four-pillar" policy, which originated in 1990 from its previous "six-pillar" policy. New Zealand, which effectively has the same major banks as Australia, is protected by the Australian policy (Mboweni, 2004). The Australian "six-pillar" policy discouraged mergers between any of the four major banks and two major life insurance companies. The Australian government determined that it would be anti-competitive for the four big banks and two big insurance companies to merge.
In 1997, however, the Australian government scrapped its "six-pillar" policy after the Wallis Inquiry concluded that increased competition would achieve lower costs, better services and higher efficiencies for consumers. Nevertheless, the Australian government determined that there was insufficient competition to allow mergers among the big four banks and thus the "six-pillar" policy became the "four-pillar" policy. According to the South African Minister of Finance, who has responsibility for national financial policy, South Africa also follows a "four-pillar" policy. Recently, the Minister stated that South Africa maintains a "four-pillar" policy of having four big, locally

owned banks regulated by the Office for Banks (Mboweni, 2004).. The "four-pillar" policy in South Africa lay at the heart of considering the Nedcor Bank bid for Stanbic. The arguments advanced and conclusions drawn at the time conformed to that principle.
Current indications are that a number of international banks are interested in acquiring one or two of our four pillars. Even if such interested was approved, it seems important to the Reserve Bank that there still remain four pillars upon which our banking system rests. The presence of internationally-owned banks will most certainly introduce more competition which in theory should benefit consumers (Mboweni, 2004). The authorities will therefore have to examine each application to buy into one of our four pillars on a case by case basis. The world is changing very fast and the regulatory authorities cannot be seen to be standing in the way of globalization and rapid changes. These changes should be welcome as they are indicative of the increasingly positive outlook for South Africa. The authorities have therefore to face up to the task of anticipating and keeping abreast of changes to meet the new challenges and opportunities. Nothing is stable except stability' and progress is measured by constantly changing when circumstances change as the great philosophers of old would say.

Methods

To compare the development of Nigeria banking sector with that of South Africa, the study adopted a quantitative approach. A quantitative approach is relevant because it employs statistics, which is a comparative methodological discipline that uses mathematical ideas for descriptive data analysis, point inference, and hypothesis testing (Creswell, 2008). Descriptive analysis is used to measure, describe and analyze the development of Nigeria banking sector with the South African counterpart. The study also employs line graphs, charts and mean difference in providing a pictorial snap shot in comparative analysis

Results and Discussion

Table 1: Private Sector Credit

Year	Nigeria	South Africa	Difference
2015	13.00093	68.23931	-55.2384
2016	14.59722	66.60175	-52.0045
2017	12.77731	65.56694	-52.7896
2018	10.17949	65.73852	-55.559
2019	10.43072	66.71616	-56.2854
2020	11.22810	69.27872	-58.0506

Private Sector Credit

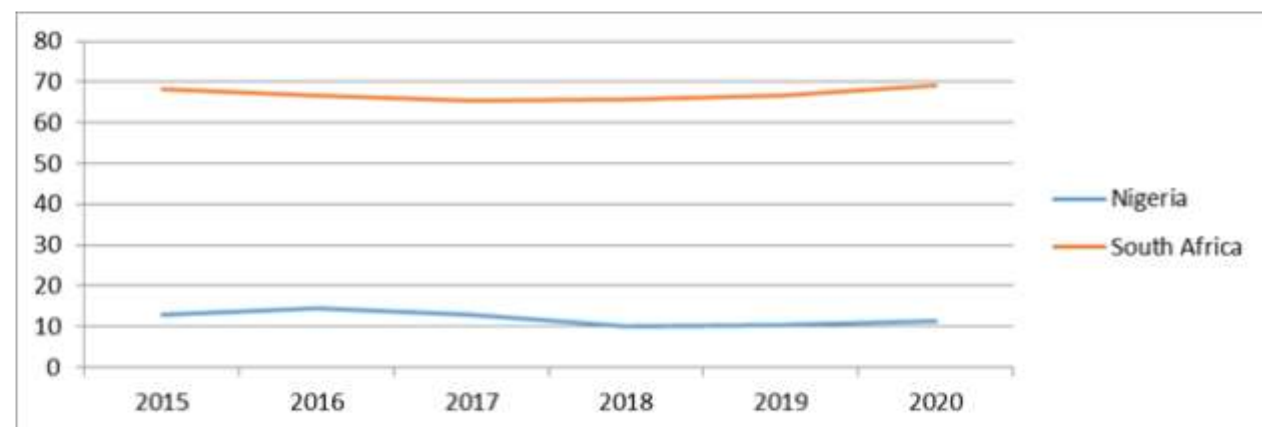


Figure 1: line graph showing credit to private sector credit of Nigeria and South Africa from 2015-2020

Table 2: Number of Deposits

Year	Nigeria	South Africa	Difference
2015	67,547,757	60,887,135	6,660,622
2016	84,599,339	66,706,575	17,892,764
2017	98,659,710	68,613,609	30,046,101
2018	111,458,780	59,049,662	52,409,118
2019	127,616,696	70,179,601	57,437,095
2020	152,653,302	65,058,421	87,594,881
2021	174,753,641	81,352,864	93,400,777

Number of Deposits

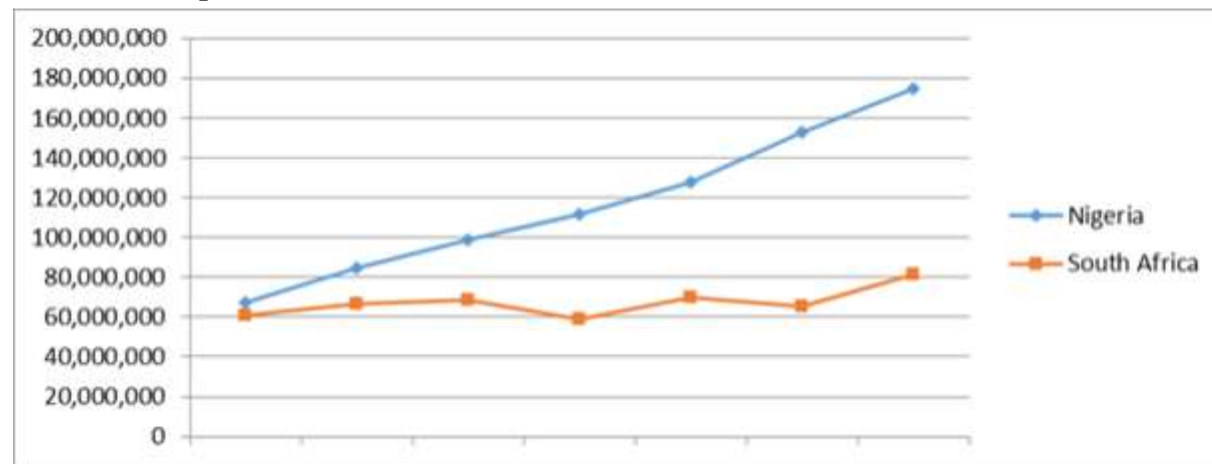


Figure 2: line graph showing number of deposits of Nigeria and South Africa from 2015-2020

Table 3: Number of Banks Branch Per 100,000

YEAR	Nigeria	South Africa	Difference
2015	4.980	10.18534	-5.20534
2016	4.742	9.97585	-5.23385
2017	4.437	10.38327	-5.94627
2018	4.301	10.18004	-5.87904

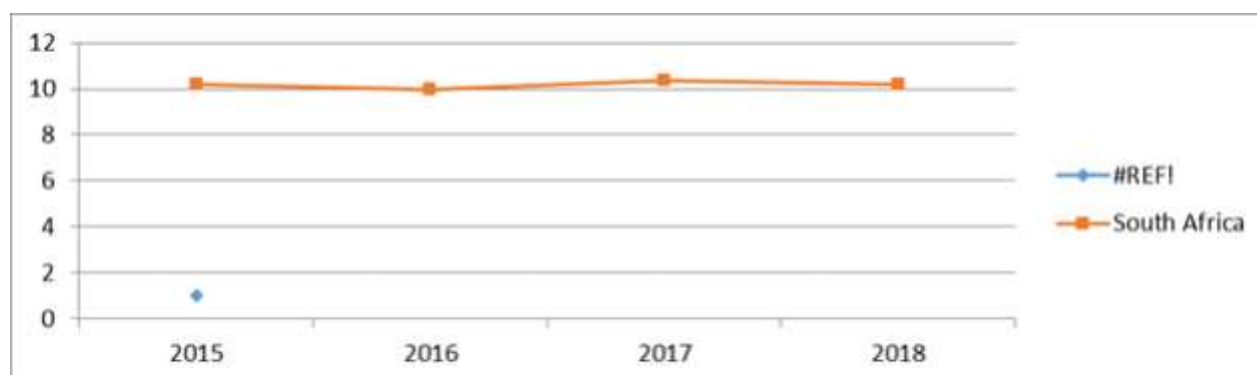


Figure 3: line graph showing number of deposits of Nigeria and South Africa from 2015-2018

Table 4: 5 Banks Assets Concentration

Year	Nigeria	South Africa	Difference
2015	97.131660	99.24387	-2.11221
2016	96.58839	99.26501	-2.67662
2017	95.79731	99.26501	-3.4677
2018	97.83461	99.57	-1.73539
2019	99.811641	99.67897	0.132671
2020	93.09720	99.86399	-6.76679

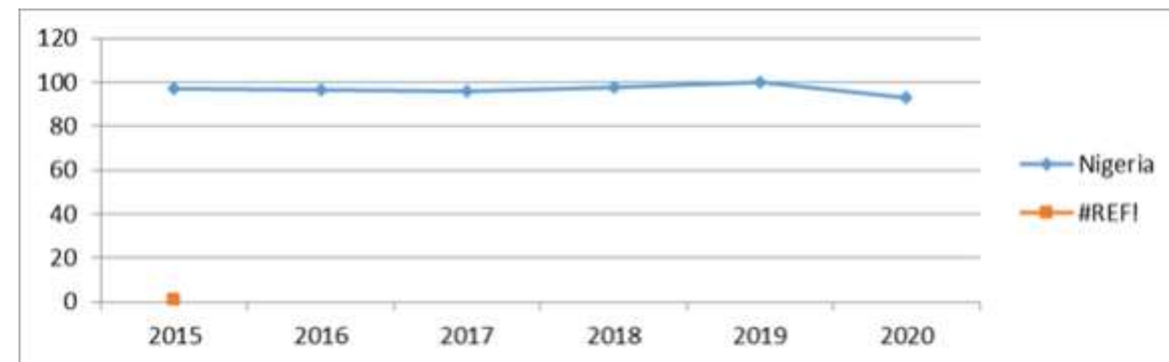


Figure 4: line graph showing 5 Banks Assets Concentration of Nigeria and South Africa from 2015-2020

Table 5: Bank Return on Assets

Year	Nigeria	South Africa	Difference
2015	0.952	0.90154	0.05046
2016	-0.349	1.26856	-1.61756
2017	0.7020	1.55055	-0.84855
2018	0.913	1.37875	-0.46575
2019	1.034	1.37295	-0.33895
2020	1.123	0.62363	0.49937

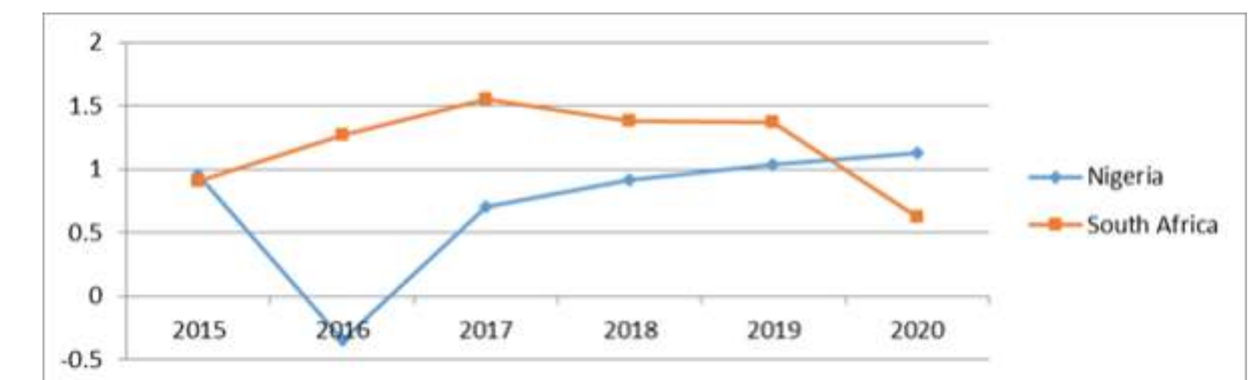


Fig. 5: line graph showing bank return on assets of Nigeria and South Africa from 2015-2020

Table 6: Bank Deposit to Gross Domestic Product Ratio

Year	Nigeria	South Africa	Difference
2015	17.63675	61.98522	-44.3485
2016	17.42893	59.55103	-42.1221
2017	16.50930	59.35512	-42.8458
2018	16.40908	59.99234	-43.5833
2019	16.46409	59.53856	-43.0745
2020	20.83606	70.63463	-49.7986

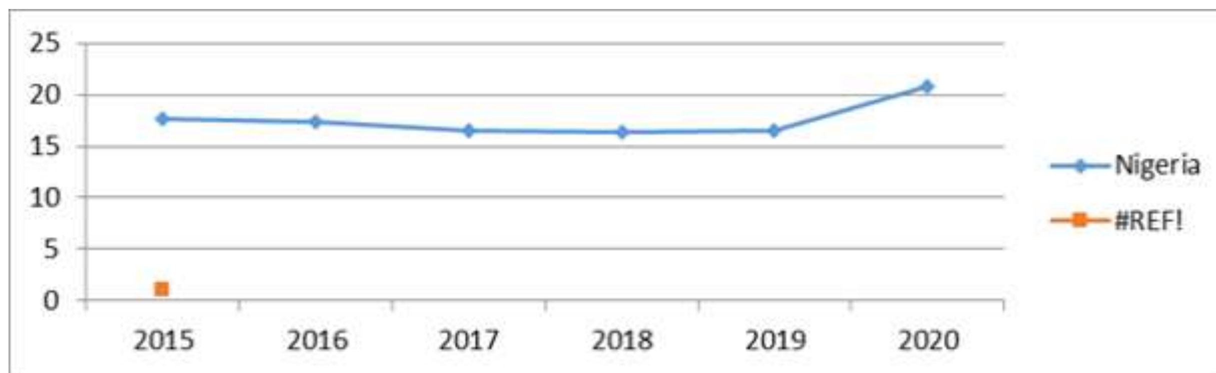


Fig. 6: line graph showing bank deposit to gross domestic product ratio of Nigeria and South Africa from 2015-2020

Table 6. Registered Number of Mobile Agent Outlet

Year	Nigeria	South Africa	Difference
2015	21.086	16.89488	4.19112
2016	13.877	1.68738	12.18962
2017	11.226	-	
2018	41.411	-	
2019	145.800	-	
2020	129.154	16.41909	112.7349
2021	620.178	36.26536	4.19112

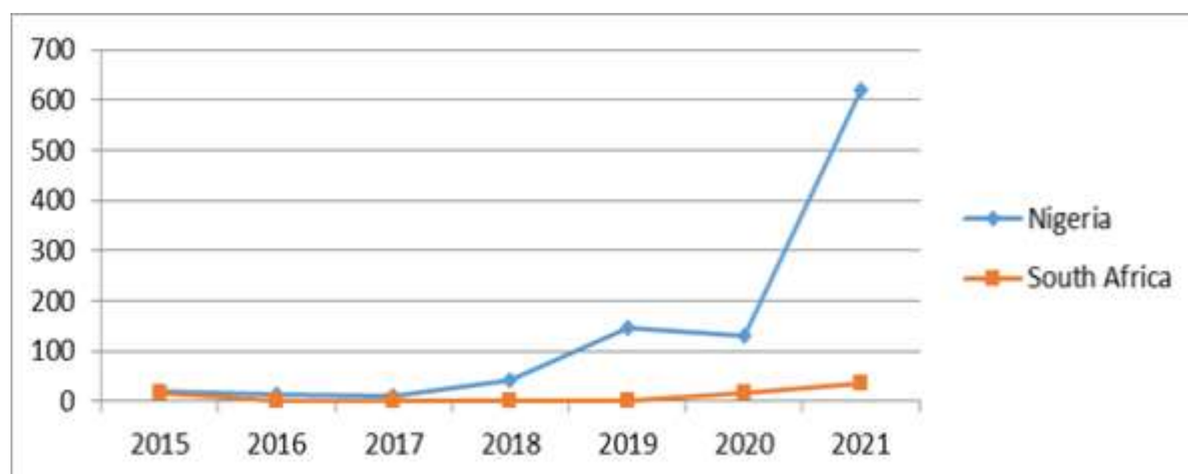


Fig. 7: line graph showing registered number of mobile agent outlet of Nigeria and South Africa banks from 2015-2020

Discussion of Findings

Table 1 compared private sector credit in Nigeria and South Africa between 2015 and 2020. The findings show that in 2015, credit sector credit difference between the two countries was 55.2 which imply that private sector credit in South Africa is 55.2 percent higher than Nigeria and it continues over the periods covered in the study. An examination of the line graph reveals that South Africa lies above Nigeria. The large difference in the private sector credit between the two countries could be explained by the level of private sector investment, macroeconomic policies and monetary policy of the two countries within the time periods of the study.

Table 2 compared number of deposits in Nigeria and South Africa between 2015 and 2021. The findings show that in 2015, number deposits difference between the two countries was over 6 million depositors which imply that number of deposits in Nigeria is 67,547,757 while that of South Africa was 60,887,135 giving a difference of 6,660,622, this implies that number deposits in Nigeria is higher than that of the south Africa within the periods of the study. The difference in the number of deposits could be traced to differences in financial inclusion policy population and banking habit of the two countries.

Table 3 compared number of commercial banks branches per 100, 0000 in Nigeria and South Africa between 2015 and 2018. This is supported in a study carried by Akani & Lucy, 2020, Akani & Akani, 2019 and Toby & Akani, 2014. The findings show that in 2015, number of commercial banks branches per 100, 0000 differences between the two countries was over 5.2 percent South Africa above Nigeria. An examination of the line graph reveals that South Africa lies above Nigeria. The large difference in the variables between the two countries could be explained by the level of banking sector development, macroeconomic policies and monetary policy of the two countries within the time periods of the study. Table 4 showed that south banks are higher than Nigerian banks in 5 bank assets concentration. This is in line with the publication of This means that, If the top five banks in Africa's most populous country and the continent's largest economy, Nigeria, decided to merge and form a single bank, they still wouldn't measure up to the largest South African bank, asset-wise.

One thing is obvious then; In African banking, South Africa is king. South Africa possesses a highly developed and advanced banking industry. Indeed, the only African bank that is found on the list of the top 150 banks globally is a South African bank known as First National Bank (FNB), occupying the 14th spot. The banking industry in South Africa also has a higher financial penetration than the rest of Africa. South African Reserve Bank (SARB), which is the country's central bank, regulates a total of 42 banking institutions. Based on Total Asset, its largest banks are Standard Bank, FirstRand, Absa, Nedbank, Investec, with the industry's total asset measuring to ZAR 5.74 (USD 367.1 Bn). Nigeria, on the other hand, has the second-largest banking industry in Sub-Saharan Africa, behind South Africa. The banking system in Nigeria is run by the Central Bank of Nigeria (CBN) which heads 22 banks with total assets worth NGN 42.2 Tn (USD 110.9.

Conclusion

South Africa is characterized by a highly diversified economy and is the continent's most advanced economy, with Nigeria still struggling to wean itself off of a heavily one-sided economy largely dependent on a single primary export, crude; although Nigeria appears to have the largest economy in Africa in terms of gross domestic product. Generally, a bank is known to be a place where monetary transactions are made. This would mean that the amount of money available per individual, is a determinant of the level at which the banking sector would be. A country with a better standard of living is likely to have its banking sector supersede another with a lower living standard. High net-worth individuals attribute a significant amount to the banking volume and they naturally are the big catch for the industry. From the findings of the study, we conclude that South African banks perform better and more developed than the Nigerian banks.

Recommendations

From the findings the study recommends the need for further strengthening and of reforms in the Nigerian banking sector to meet its international counterparts. This should involve both the management of the banking sector and the regulatory cum supervisory authorities.

References

Africa Development Bank Annual Reports 2019
Africa Development Bank Annual Reports 2020
Africa Development Bank Annual Reports 2021
Africa Development Bank Annual Reports 2022
Akani, H.W., & Lucky, A. L. (2019). Financial discipline and performance of deposit money banks: empirical evidence from Nigeria economy. *European Journal of Accounting, Finance and Investment, 5*(2), 100-123.
Akani, H.W. (2019). Effect of cross border banking on growth of deposit money banks in Nigeria. *International Journal of Interdisciplinary Research Methods. 6*(5), 1-26.
Akani, H.W. & Akani, **V. C.** (2019). Theoretical perspectives of earnings, profitability and asset quality in banking: Descriptive evidence from Nigeria economy. *World Journal of Finance and Investment Research 8*(1), 1-24.
Akani, H.W., & Lucky, A. L. (2020). Financial deficiency syndrome and behaviour of low income Earners in rural communities of Rivers State, Nigeria. *International Journal of Small Business and Entrepreneurship Research, 8*(1), 14-30.
Akani, H. W., & Lucky, A. L. (2014), Money supply and stock prices in Nigeria: An analysis of co-interpretation and causality tests. *Research Journali's of Finance*, 2 (10), 1- 24.
Mboweni, T T. (2004). Governor of the South African Reserve Bank, at the year-end media cocktail function, Johannesburg, 14 December 2004.
Okonji-Iweala, N. (2012). Reforming the unreformable: Lesson from Nigeria. MIT Press.
Okotori, T. W. (2019). The dynamics of monetary policy and inflation in Nigeria. *IOSR Journal of Economics and Finance, 10*(2), 37-49.
Oladejo, M. O., & Oladipupo, A. U. (2011): Capital Regulation and the Performance of the Nigerian banks: Need for Review. *Journal of Emerging Trends in Economics and Management Sciences, 2 (3), 215-224*
Olaoye, F. O., & Olarewaju, O. M. (2015).Determinants of deposit money banks' profitability in Nigeria. *Arabian Journal of Business and Management Review, 4*(9), 11-18.
Olweny, T., & Shipho T. M., (2011). Effects of Banking Sectoral Factors on the Profitability of Commercial Banks in Kenya. *Economics and Finance Review, 1(5), 1 – 30.*
Onodje, M.A. (2009). Nigeria's banking sector reforms: The journey so far. African Online Journal, 15(2), 1-12.
Osadume, R., & Ibenta, S.(2018). Evaluation of the financial performance of deposit money banks in Nigeria (2001-2014*). International Journal of Banking and Finance Research. 4(2), 1-28.*
Osuka, B.O., & Osadume, C.R. (2013). The determinants of financial performance of quoted banks in Nigeria: A case study of selected deposit money banks' (DMBs) (2001-2010). *International Journal of Education and Research, 1, (10), 1-18.*
Ötker-Robe, I. & Pazarbasioglu**,** C.(2010). Impact of Regulatory Reforms on Large and Complex Financial Institutions, IMF Staff Position, Note 10/16, Washington, D.C.: IMF.
Toby, A. J. (2006), Nigerian bank management theory and practice. Pearl Publishers.
Toby, A.J & Akani, H.W (2014), Microfinance and poverty alleviation programme in Nigeria – The needed paradigm shift. *Developing Country Studies*, *4*(6), 157-177.
Toby, A. J., & Peterside, D. (2014). Monetary policy, bank management and real sector finance in Nigeria: Who is to blame? *Proceedings of the First Middle Conference on Global Business, Economics, Finance and Banking (ME 14 Dubai Conferences) Dubai.*

Toby, A. J., & Zaagha, A.S, (2020). Central bank policy and private sector funding in Nigeria: a multi-variant study. *Journal of Strategic and Internet Business, 4*(2), 899-923.
Toby, A.J., (2008). Monetary policy, capital adequacy regulation and banking system soundness in Nigeria: Empirical Research Findings. ***Journal of Financial Management and Analysis 21 (1), 32 – 46.***

From Credit Cards to Cryptocurrencies: A Historical Perspective on Digital Payments System in Nigeria

IWEDI Marshal
Department of Banking and Finance,
Faculty of Management Sciences,
Rivers State University, Nkpolu-Oroworukwo, Port Harcourt.
marshal.iwedi@ust.edu.ng
WACHUKU, Ihenacho Princewill
Department of Banking and Finance,
Faculty of Management Sciences,
Rivers State University, Nkpolu-Oroworukwo, Port Harcourt.

Abstract
The digital revolution has ushered in a transformation in the way financial transactions are conducted, leading to the widespread adoption of digital payment systems. This article provides a comprehensive overview of digital payment systems, tracing their historical evolution and highlighting their growing importance and growth. We delve into the types of digital payment systems, emphasizing their advantages over traditional payment methods, and explore the critical components of payment processing, settlement, and security measures. The historical journey of digital payment systems, from the introduction of credit cards in the 1950s to the ongoing exploration of Central Bank Digital Currencies (CBDCs) and Decentralized Finance (DeFi), showcases the dynamic nature of this ecosystem. Digital payment systems offer consumers unparalleled convenience, eliminating the need for physical cash or checks, while also enhancing security through encryption, tokenization, and multi-factor authentication. Businesses benefit from digital payments by catering to a diverse customer base, streamlining processing, and improving cash flow. Comparing traditional payment systems with their digital counterparts underscores the advantages of the latter, as digital payment systems leverage technology to enable seamless, instantaneous, and secure transactions. Various types of digital payment systems, such as credit and debit cards, mobile wallets, and cryptocurrencies, cater to diverse needs and preferences. Payment processing, including verification and authorization, ensures the validity of transactions, followed by settlement, which transfers funds between parties. Payment security and fraud prevention are paramount, with measures like encryption, tokenization, and advanced algorithms safeguarding sensitive financial information. In conclusion, the evolution of digital payment systems has reshaped financial transactions, offering convenience, security, and efficiency. As technology advances and consumer preferences evolve, the digital payment landscape is expected to continue growing and adapting, introducing new possibilities and innovations. Organizations must prioritize payment security, fraud prevention, and compliance with evolving industry standards to thrive in this dynamic environment.

Keywords: Digital Payment Systems, Evolution of Payments, Electronic Payment Systems, Payment Security, Financial Inclusion

Introduction

The digital revolution has transformed every aspect of our lives, including the way we make payments. Gone are the days when we relied solely on cash or paper checks to settle financial transaction. In the past, physical money in the form of cash or checks was the primary method of payment. However, with the advent of technology, digital payment systems have emerged as a convenient and efficient alternative. Digital payment systems refer to the electronic transfer of funds between parties, eliminating the need for physical currency. These systems encompass a wide range of methods, such as mobile wallets, online banking, and cryptocurrency.

What is Digital Payment Systems All About?

Digital payment system, often referred to as an electronic payment system or e-payment system, is a mechanism that facilitates electronic or online transactions between individuals, businesses, and financial institutions. These systems enable the transfer of money or the exchange of goods and services without the need for physical cash or checks. These systems facilitate the transfer of funds from one party to another, often through the use of computers, smartphones, or other internet-enabled devices (Stallaert, Whinston & Animesh, 2017). Electronic payment systems have become increasingly popular due to their convenience, security, and efficiency.

Historical Evolution of Digital Payment Systems

The evolution of digital payment systems has been a fascinating journey, driven by technological advancements and changes in consumer behavior. Here is a brief overview of the key milestones in the evolution of digital payment systems:

Credit Cards (1950s - 1960s)

The concept of credit cards emerged in the 1950s with the introduction of Diners Club and American Express cards. In 1958, Bank of America launched the first modern credit card, the BankAmericard, which later became Visa (Chishti & Barberis, 2016). These cards allowed consumers to make payments at participating merchants without cash.

Debit Cards (1970s)

Debit cards were introduced in the 1970s, allowing consumers to make payments directly from their bank accounts. The most notable debit card system, the Automated Teller Machine (ATM), was developed, allowing users to withdraw cash and check account balances.

Online Banking (1980s - 1990s)

The 1980s saw the emergence of online banking, enabling customers to check account balances and transfer funds electronically. In the 1990s, the World Wide Web popularized online banking further, with banks offering web-based services.

PayPal (1998)

PayPal, founded in 1998, revolutionized online payments by providing a secure platform for sending and receiving money via email addresses. It facilitated e-commerce and person-to-person payments.

Mobile Payments (2000s - Present)

The rise of smartphones in the mid-2000s paved the way for mobile payment systems. Apple Pay, Google Wallet (now Google Pay), and Samsung Pay introduced mobile wallets that allowed users to make contactless payments using their smartphones.

Contactless Payments (2010s - Present)

Contactless payment methods, including Near Field Communication (NFC) and RFID technology, became mainstream. Contactless cards and mobile wallets enabled quick and secure payments by tapping or waving the device near a compatible terminal.

Peer-to-Peer (P2P) Payment Apps (2010s-Present)

Apps like Venmo, Cash App, and Zelle gained popularity for P2P payments, making it easy for individuals to send money to each other. These apps also integrated social elements, allowing users to add notes and emojis to payments.

Cryptocurrencies (2009-Present)

The launch of Bitcoin in 2009 marked the beginning of cryptocurrencies, offering a decentralized digital currency and payment system. Cryptocurrencies like Ethereum, Litecoin, and others emerged, providing various use cases beyond traditional payments.

Central Bank Digital Currencies (CBDCs)

Several countries including Nigeria have been exploring the concept of CBDCs, which are digital versions of their national currencies. CBDCs aim to enhance the efficiency and security of digital payments while maintaining government control over the monetary system.

Decentralized Finance (DeFi) (Ongoing)

DeFi platforms leverage blockchain technology to offer decentralized financial services, including lending, borrowing, and trading, without traditional intermediaries.

The evolution of digital payment systems continues to evolve rapidly, driven by technological innovations, regulatory changes, and shifting consumer preferences. It's likely that the future will bring further advancements, such as increased adoption of cryptocurrencies, expanded use of CBDCs, and the development of new financial technologies.

Importance and Growth of Digital Payment Systems

The importance and growth of digital payment systems cannot be overstated. These systems offer numerous benefits to both individuals and businesses. For consumers, digital payments provide convenience, allowing them to make instant payments without the need for physical cash (Iwedi, Igbanibo and Uzo-Ahunanya, (2018). It eliminates the hassle of carrying bulky wallets or worrying about loose change.

Moreover, digital payment systems offer enhanced security compared to traditional methods. With encryption and authentication measures in place, the risk of fraud or theft is significantly reduced. This provides peace of mind for both consumers and businesses.

From a business perspective, accepting digital payments opens up new opportunities for growth. By

offering multiple payment options, businesses can cater to a wider customer base, including those who prefer cashless transactions (Kar & Nazareth, 2017). Furthermore, digital payments enable faster and more efficient processing, leading to quicker access to funds and improved cash flow.
The growth of digital payment systems has been remarkable. According to a report by Statista, the global digital payment market is projected to reach a staggering $10.07 trillion by 2026. This growth is driven by factors such as increasing smartphone penetration (Iwedi, Wachukwu & Amadi, 2023), the rise of e-commerce, and the shift towards contactless payments due to the COVID-19 pandemic.

Traditional versus Digital Payment Systems

Before we delve into the world of digital payment systems, let's first understand the traditional payment system that has been in use for centuries. The traditional payment system primarily involves the exchange of physical currency, such as cash or checks, between parties. While this method has served us well for a long time, it is not without its limitations. For instance, carrying large amounts of cash can be risky, and checks can take days to clear. The rise of digital payment systems has brought about a radical shift in the way we conduct financial transactions (Ravi, 2020). Unlike traditional payment systems, digital payment systems rely on electronic transfers of funds, allowing for seamless and instantaneous transactions. These systems leverage technology to enable individuals and businesses to send and receive payments securely, efficiently, and conveniently.

Types of Digital Payment Systems

Digital payment systems come in various forms, each catering to different needs and preferences. Some of the most common types are:

1. Credit and Debit Cards

These are among the most common electronic payment methods. Users can make payments by swiping or inserting a physical card at a point-of-sale (POS) terminal or by entering card details for online transactions. Credit cards allow users to make purchases on credit and pay the bill later, while debit cards deduct funds directly from the user's bank account.

2. Mobile Wallets

Mobile wallets have gained significant traction in recent years, thanks to the widespread use of smartphones. These digital wallets allow users to store their payment information securely on their mobile devices. With just a few taps, users can make payments at participating merchants, both online and offline. Popular mobile wallet providers include Apple Pay, Samsung Pay, and Google Pay.

3. Online Payment Gateways

Online payment gateways act as intermediaries between buyers and sellers during online transactions. These gateways securely process payment information, facilitating seamless transactions. They often support a variety of payment methods, including credit cards, debit cards, and bank transfers. PayPal and Stripe are well-known examples of online payment gateways that have gained widespread adoption.

4. Electronic Funds Transfer (EFT)

EFT is a generic term for transferring funds electronically from one bank account to another. This includes various methods such as wire transfers, Automated Clearing House (ACH) transfers, and direct deposit.

5. Online Banking

Customers can use online banking services provided by their financial institutions to transfer money, pay bills, and make purchases online. This often involves logging into a secure web portal or mobile app.

6. Cryptocurrencies

Cryptocurrencies have emerged as a decentralized form of digital payment, powered by blockchain technology. These digital currencies, such as Bitcoin and Ethereum, allow for secure, peer-to-peer transactions without the need for intermediaries. Cryptocurrencies offer advantages like lower transaction fees and increased privacy. However, their adoption is still relatively limited compared to traditional payment methods.

Payment Processing and Settlement

Payment processing is a crucial component of digital payment systems. It involves the verification and authorization of payment details to ensure the transaction is valid and legitimate (Tapscott & Tapscott, 2016). Once a payment is initiated, the payment processor securely transmits the necessary information between the payer, the payee, and the financial institutions involved. This process typically happens in real-time, allowing for quick and efficient transactions. After payment processing, the final step in a digital payment system is payment settlement. Payment settlement refers to the transfer of funds from the payer's account to the payee's account. This step ensures that the funds are accurately credited and debited, completing the transaction. Depending on the payment system used, settlement can occur immediately or may take a few business days.

Payment Security and Fraud Prevention

Payment security and fraud prevention are critical considerations in the world of electronic payments. As digital transactions become more prevalent, protecting sensitive financial information and preventing fraud are essential for both consumers and businesses. Here are some key strategies and technologies used to enhance payment security and prevent fraud:

Payment Security Measures:

Encryption: Encryption technology is used to secure data during transmission. This ensures that data exchanged between the user's device and the payment system remains confidential and cannot be intercepted by unauthorized parties.

Tokenization: Tokenization replaces sensitive data, such as credit card numbers, with unique tokens. These tokens have no intrinsic value and are meaningless to hackers even if intercepted. They are used for transactions and can't be used for fraudulent purposes.

Multi-Factor Authentication (MFA): MFA requires users to provide two or more authentication factors to access their accounts or complete transactions. Common factors include something the user knows (password), something the user has (smartphone), and something the user is (fingerprint or facial recognition).

Secure Sockets Layer (SSL) Certificates: SSL certificates establish secure connections between web browsers and servers. Websites that use HTTPS are considered more secure, as the data transmitted is encrypted and protected from interception.

EMV Chip Cards: EMV (Europay, Mastercard, and Visa) chip cards have embedded microchips that generate unique transaction codes for each purchase. This makes it much more difficult for criminals to clone or counterfeit cards.

Biometric Authentication: Biometric methods, such as fingerprint scanning or facial recognition, are used to verify a user's identity, providing a high level of security for device access and transactions.

Transaction Monitoring: Real-time transaction monitoring systems analyze transaction data for unusual patterns or deviations from normal behavior. If suspicious activity is detected, the system can trigger alerts or block the transaction for further investigation.

Fraud Prevention Techniques:

Fraud Detection Algorithms: Advanced machine learning and AI algorithms are used to detect fraudulent patterns and anomalies in transaction data. These algorithms can help identify potentially fraudulent activities quickly.

Address Verification Service (AVS): AVS compares the billing address provided during a transaction with the address on file with the card issuer. Mismatches may trigger additional scrutiny.

Device Fingerprinting: Device fingerprinting analyzes various attributes of a user's device, such as the IP address, browser type, and screen resolution, to help identify potentially fraudulent devices or locations.

Geolocation Services: Geolocation technology helps verify the location of a transaction. If a payment is made from a location that doesn't align with the user's usual location, it may raise suspicion.

Behavioral Analytics: Behavioral analytics analyze user behavior, such as typing speed and keystroke patterns, to identify unusual behavior that may indicate fraud.

Customer Verification: Businesses may use various methods to verify customer identity, in-

cluding asking for additional documentation or information when suspicious activity is detected.
Machine Learning and AI: These technologies continuously learn from transaction data to improve fraud detection. They can adapt to evolving fraud tactics and patterns.
Education and Awareness: Educating customers and employees about common fraud tactics and prevention measures can help reduce the likelihood of falling victim to fraud.
Regulatory Compliance: Compliance with industry regulations, such as Payment Card Industry Data Security Standard (PCI DSS) and Know Your Customer (KYC) requirements, is essential to ensuring payment security and preventing fraud.
Collaboration and Information Sharing: Financial institutions, payment processors, and law enforcement agencies collaborate to share information about emerging threats and fraud trends, enabling proactive prevention and investigation.
Effective payment security and fraud prevention require a multi-layered approach that combines various technologies, processes, and user awareness. As technology evolves, so do fraud tactics, making it essential for organizations to stay vigilant and continuously improve their security measures.

Conclusion

The digital revolution has dramatically transformed the landscape of financial transactions, ushering in a new era of convenience, security, and efficiency through digital payment systems. These systems have evolved over time, reflecting both technological advancements and shifts in consumer behavior. The historical journey from the introduction of credit cards in the 1950s to the ongoing exploration of Central Bank Digital Currencies (CBDCs) and Decentralized Finance (DeFi) highlights the dynamic nature of the digital payment ecosystem. The significance of digital payment systems cannot be overstated.

For consumers, they offer unparalleled convenience, eliminating the need for physical cash and checks. Moreover, the enhanced security measures, including encryption, tokenization, and multi-factor authentication, have significantly reduced the risk of fraud, providing peace of mind for both individuals and businesses. From a business perspective, adopting digital payment methods opens up new avenues for growth. Multiple payment options cater to a diverse customer base, and streamlined processing leads to faster access to funds and improved cash flow. The remarkable growth projected for the global digital payment market underscores its importance in the modern economy.

Comparing traditional payment systems to their digital counterparts reveals the clear advantages of the latter. Digital payment systems leverage technology to enable seamless, instantaneous transactions, eliminating the limitations associated with physical currency exchange and check processing. Various types of digital payment systems, from credit and debit cards to mobile wallets and cryptocurrencies, cater to diverse needs and preferences. Each system offers unique features and benefits, contributing to the versatility and accessibility of digital payments.

Payment processing and settlement are crucial components of digital payment systems, ensuring the validity and completion of transactions. These processes, often conducted in real-time, enable quick and efficient financial interactions, although the duration of settlement may vary. Payment security and fraud prevention remain paramount in the digital payment landscape. Robust security measures, such as encryption, tokenization, and multi-factor authentication, protect sensitive financial information. Additionally, advanced fraud detection algorithms, behavioral analytics, and collaboration among stakeholders help mitigate fraudulent activities.

In conclusion, the evolution of digital payment systems has reshaped the way we conduct financial transactions, offering unparalleled convenience, security, and efficiency. As technology continues to advance and consumer preferences evolve, it is expected that the digital payment landscape will continue to grow and adapt, introducing new possibilities and innovations to the financial world. To stay ahead in this dynamic environment, organizations must prioritize payment security, fraud prevention, and compliance with evolving industry standards.

References

Chishti, S., & Barberis, J. (2016). "The Evolution of Digital Currencies: Bitcoin, a Regulatory Nightmare or a Dream Come True?" *Journal of Financial Transformation*, 42, 97-104.
Iwedi M., Owakah N.F., & Wofuru-Nyenke O.K. (2023), Effect of financial technology on financial inclusion in Nigeria. *African Journal of Accounting and Financial Research* 3(1), 21- 36. DOI:10.52589/AJAFR-A7LQZBE9
Iwedi, M (2020). Financial inclusion in Nigeria: An evaluation of the progress, challenges and trend. *Greener Journal of Economics and Accountancy* 8(1), 1-5
Iwedi, M. Wachukwu, I.P & Amadi J.C. (2023). Mobile payment technology and poverty alleviation in Nigeria. *Middle East Research Journal of Economics and Management*, 3(1); 1-9.
Iwedi, M., Kocha, C.N. & Wike, C. (2022). Effect of digitalization of banking services on the Nigeria economy. *Contemporary Journal of Banking and Finance*, 2(1), 1-9.
Iwedi, M; Igbanibo, D.S. & Uzo-Ahunanya, C. (2018) Effects of cashless economy policy on national development: evidence from Nigeria. *Journal of Economics and Management Sciences*, 1(2), 56- 67.
Kar, A. K., & Nazareth, D. L. (2017). "Digital Payments and e-Commerce: An Empirical Analysis of Factors Driving Digital Wallet Adoption." *Journal of Internet Banking and Commerce*, 22 (2), 1-22.
Mullaney, T. (2019). "The Payment Industry's New World Order: Trends Redefining the Future of Payments." Payments Journal.
Ravi, S. (2020). "Digital payment systems: issues and prospects." In handbook of research on emerging business models and managerial strategies in the nonprofit sector (pp. 81-97). IGI Global.
Reserve Bank of India. (2019). "Digital Payment Systems in India: An Overview." RBI Bulletin, September 2019.
Stallaert, J., Whinston, A. B., & Animesh, A. (2017). "Economic and Business Models of Digital Payment Mechanisms: A Comparative Analysis." *MIS Quarterly*, 41(4), 1169-1203.
Statista. (2021). "Digital Payments - Statistics & Facts." Statista.com.
Tapscott, D., & Tapscott, A. (2016). "Blockchain Revolution: How the Technology Behind Bitcoin is Changing Money, Business, and the World." Penguin.

Adoption of Sustainability Standards in Nigeria: Emerging challenges and Matters Arising

Ruth Lesi Tony-Obiosa
Department of Accountancy
Faculty of Management Sciences
Rivers State University

Abstract
This study is carried out to evaluate the challenge of sustainability reporting in Nigeria, through current events unfolding by the global body of Accountants, regulating its practice (IFAC) and review of related literature. The work done so far by IFAC dominates the extant literature. The level of readiness of the body regulating financial reporting practice in Nigeria, the Financial reporting Council of Nigeria (FRCN) was also reviewed and the challenges that IFAC has highlighted vis a vis the challenges emerging economies will face, Nigeria inclusive. Theoretical framework were also underpinned which forms the bedrock for this paper, two theories were reviewed, the legitimacy theory and the stakeholder theory, which emphasized the dire need for consideration of the planet while Accountants who are saddled with the task of reporting prepare financial reports. The two new disclosure standards IFRS S1 and IFRS S2 introduced by the International Accounting Standard Board (IASB) through the International Sustainability Board (ISSB) has come to stay and implementation will commence from January, 2024. Implementing these standards will come with its emerging challenges and that is what this paper has reviewed including some mitigants the ISSB has put in place to reduce the challenges emanating from the adoption of the standards in Nigeria, it is hoped that the recommendations from this paper will be considered in ensuring that the transition to the adoption process becomes seamless, a major recommendation is for the inclusion of the sustainability standards in financial and corporate reporting to be added to Universities Accounting curricula in order for the students to understand the necessary requirements in the reporting process.
Keywords: Sustainability standards, sustainability-related risks, climate-related risks

Introduction

The drive for sustainability reporting has been a long cry for decades, people, profit and planet often referred to as the three P's of sustainability seemed unachievable before this time. Entities prior to this time considered majorly their profit, without putting into recognition the human resources often used to make profit happen, financial reporting got to the stage where the people element was considered which was the era of the double P, currently issues in financial reporting are emerging as rumblings continue to stir up about the sustainability of the reports prepared by Accountants globally. Last year at the World Congress of Accountants (WCOA) 2022, Price Water House & coopers indulged Accountants to sign a treaty to prepare sustainable reports including considerations to the environment, which has brought the world to the era of the triple P (People, Profit and Planet).

In ensuring this is actionable, the world body of Accountants IFAC deemed it necessary to create standards that will help promote the fight for environmental friendly financial reporting, these standards have passed through the due process of creation, two standards have so far been created tittled IFRS S1- General Requirements for Disclosure of Sustainability-Related financial information and IFRS S2 - Climate Related financial information issued on the 26th of June, 2023. Nigeria was among the countries that launched the standards, though Nigeria was among the countries that have promised to commence its use commencing January, 2024, implementing the sustainability standards in Nigeria will come with its attendant challenges which this paper intends to highlight.

IFRS S1 is effective for annual reporting periods beginning on or after 1 January 2024 with earlier application permitted as long as IFRS S2 Climate-related Disclosures is also applied. The objective of IFRS S1 is to require an entity to disclose information about its sustainability-related risks and opportunities that is useful to users of general purpose financial reports in making decisions relating to providing resources to the entity. IFRS S1 requires an entity to disclose information about all sustainability-related risks and opportunities that could reasonably be expected to affect the entity's cash flows, its access to finance or cost of capital over the short, medium or long term (collectively referred to as 'sustainability-related risks and opportunities that could reasonably be expected to affect the entity's prospects'), it can also be viewed as how a company's capacity to produce cash flow is closely tied to its engagement with stakeholders, society, the economy and the environment across its value chain.

IFRS S1 prescribes how an entity prepares and reports its sustainability-related financial disclosures and how it sets out general requirements for the content and presentation of those disclosures so that the information disclosed is useful to users in making decisions relating to providing resources to the entity. IFRS S1 sets out the requirements for disclosing information about an entity's sustainability-related risks and opportunities, in particular, an entity is required to provide disclosures about:

a. the governance processes, controls and procedures the entity uses to monitor, manage and oversee sustainability-related risks and opportunities;

b. the entity's strategy for managing sustainability-related risks and opportunities;

c. the processes the entity uses to identify, assess, prioritise and monitor sustainability-related risks and opportunities; and

the entity's performance in relation to sustainability-related risks and opportunities, including progress towards any targets the entity has set or is required to meet by law or regulation.

Literature Review

Theoretical framework

Legitimacy theory

The legitimacy theory was developed by Dowling and Pfeffer in 1975 (Guthrie & Ward, 2006). That legitimacy theory exists when an established value system is congruent with the value system of the larger social system of which the establishment is a part. Legitimacy theory is crucial in explaining the organization's behavior in implementing and developing social responsibility policies, and then communicating its results. It treats corporate, social and environmental performance and disclosure of this information as a way to fulfill the organization's social contract that enables the recognition of its objectives. The sustainability of legitimacy theory is based on the management heritage that connects traditional norms and values with modern ethics (Burlea & Popa, 2013) Legitimacy is a mandate to act, to give something legal force, to sanction. Legitimacy is also considered to be a generalized perception or an assumption that the subject's actions are desirable or appropriate in a socially constructed system of norms, values, beliefs and definitions (Suchman, 1995; and Deephouse & Suchman, 2008).

The basic premise of the theory of legitimacy is the belief that a company influences the society in which it operates. At the same time, the company is also socially influenced, that is why its functioning is similar to a kind of social contract aimed at obtaining and maintaining social acceptance (Lada & Kozarkiewicz, 2014).

All things being equal, a socially and environmentally responsible organisation is likely to enjoy proportionate patronage from the society. The result is that companies that subject themselves to sustainability reporting achieve better financial performance than firms which do not. Therefore, taking into consideration the existence of such possibility, investors tend to view companies which report additional information in the form of sustainability disclosures in their annual reports, more favorably (Wibowo, 2014). In their reasoning, companies disclosing sustainability scorecards in annual reports command higher value compared to companies that do not. Thus, in summary according to legitimacy theory, company legitimacy through socio-environmental accountability emotionally compels patronage, on which sustenance the organisation thrives (Rossi &Tarquinio, 2017).

It is on the above basis, that this paper views the adoption of the sustainability standards as very crucial, and necessary for implementation come January, 2024.

Stakeholders' theory

Stakeholder theory is a view of capitalism that stresses the interconnected relationships between a business and its customers, suppliers, employees, investors, communities and others who have a stake in the organization (Freeman, 1984). The theory argues that a firm should create value for all stakeholders, not just shareholders. In a stakeholder paradigm, management plan different groups' needs to be accommodated. According to stakeholder theory, business organizations have so many stakeholders and are dependent upon all of them for its success. Each type of stakeholders has some stake in the organization. Its purpose is not just economic value creation for shareholders. It needs to

serve the societal needs and its focus is broadened to include society and host community.
Freeman (1984) asserted that, managers are not just agents of the shareholders. They need to consider and balance the interests of all stakeholders appropriately as they have moral obligation to all stakeholders. He categorizes the type of effects that stakeholders have on the firm or that the firm has on stakeholders as economic, technological, social, political, and managerial. He delineates the "stake" of the various stakeholders as equity, economic or influencer, and the power that they wield as formal or voting power, economic power or political power. Thus, organizations need to balance their own needs and values with diverse and often conflicting needs of their different stakeholders (Greenley & Foxall, 1998).
The International organization of securities Commission (IOSCO) has emphasized the need for enhanced transparency and comparability to inform investment decision making and protect Investors from "green washing" (this is the act of providing the investing Public with false or misleading information that an organizations products and operations are environmentally friendly or making broad sustainability claims without evidence. The Sustainability standards were announced at the COP 26 in November 2021, which took place at Glasgow, Scotland, U.K. and 197 parties/countries, signed the climate pact. Typically the International Sustainability Standard Board (ISSB) has divided entities into three categories:

Prime / Premium or Senior e.g Listed companies
Standard
Growth /Entry or Venture Entities.

The first two categories would be subject to the highest standards of transparency and would be required to meet extended disclosure requirements. The last category which is the Growth or Entry tier would be subject to less stringent transparency requirements. Like in Nigeria this category are the SME's.

What is in for Stakeholders?
For the Investing Public and Shareholders
The International sustainability standards (ISS's) will create room for more consistent, comparable, verifiable and comprehensive disclosures.

For Companies
It will create positive effects in areas such as governance, strategy, access to capital, cost of capital, reputation, employee and stakeholder engagement.

For Financial Markets
The standards will improve transparency about sustainability related risks which is expected to contribute to long term financial stability.

For the Government
It will give transparency and better future cashflow from entities operating within the environment and foster better relations with entities within its borders.
For the Society
Adopting the new sustainability standards, will give credence to the work of the entities as while issuing financial reports, the effect on the host communities and the planet will have been considered and negative effects on the society would have been considered and treated.

Emerging Challenges of Sustainability Standards Adoption
Challenge of implementation
ISSB has noted that transiting to this new set of disclosures will involve a high level of change management workload and financial preparers will encounter challenges with Implementation which will depend on their level of preparedness and starting point. Implementing the necessary systems will depend on the quality of external data available in the market.

Challenge of Balance
Balancing financial preparers' needs and investors' needs for enhanced transparency and comparability, taking into recognition, the information investors will use to make decisions.

Challenge of Cost and Benefit
The Cost Benefit Analysis (CBA) of adopting the sustainability standards till date in Nigeria has not being carried out, but ISSB has issued a general statement that the benefits of implementing IFRS S1 and S2 will outweigh the costs by reducing the complexity and fragmentation of the current reporting process by providing investors with more consistent and comparable information.

Challenge of Regulation and Development of a Legal Framework
ISSB has acknowledged that the implementation of a regulatory and legal framework in the adoption of IFRS S1 and S2 will pose an initial regulating challenge, like in Nigeria the FRCN has to synchronize their process and ensure that all relevant stakeholder are carried along.

Challenge of Corporate Governance
Sustainability starts from the leaders by adopting and integrating their mindset, eschewing corruption which is an impediment to the adoption of the sustainability standards, stakeholders will need Accountants who have the critical skills for inclusive development.

Challenge of Consistency
In adopting the ISSB standards, investors and capital markets need consistent and comparable information for the users of their financial statements or reports, this includes how climate change can affect companies' decisions and actions.

Challenge of Capacity Building
There is a real need at company level for competencies as it relates to sustainability, each entity needs to have Accountants and financial reporters with adequate capacity and the right knowledge equipped with the right skills for Sustainability reporting, which can be mitigated with the right training.

Challenge of Preparation
Preparing for the adoption of IFRS S1 and S2 involves getting ready for high quality assurance to serve the public Interest, and this will require proper planning and adhering to laid down plans and procedures, avoiding bureaucratic practices that will impede on the process.
IFRS Emerging Remedies to the Challenges
In curbing these challenging ISSB has made provision in the disclosure standards to support the Phasing in and scaling of requirements and also made provision to support application by entities with limited experience, especially for emerging economies like Nigeria.

The IFRS Foundation and ISSB have adopted a **fourfold strategy**:

Including Scalability and Proportionality mechanisms
ISSB in adopting IFRS S1 and S2 has given a scalable approach to entities by separating each class of entities just like in the case of the Nigeria Road map in 2012 to IFRS Adoption.

Transitional reliefs for disclosure requirements on first time adoption
The transition reliefs in both IFRS S1 and S2 relate to:
Climate-First Reporting relief
This allows entities on first time adoption to report on only climate related risks and opportunities

which is in accordance with IFRS S2, in which the entity will be given relief for the first year of adoption of IFRS S1 report on only climate related risks and opportunities which is in accordance with IFRS S2, in which entities will report from the second year of adoption report on other sustainability related risks and opportunities.

Scope 3 Green House Gas (GHG) emissions relief
IFRS S2 provides a transition relief in the first annual reporting period from disclosing Scope 3 GHG emissions, Scope 3 GHG emissions is critically important to investors as they assess the transition risks and opportunities in the move towards a lower carbon economy.
Timing of Reporting relief
IFRS SI requires entities to report their sustainability related financial disclosures at the same time as their related financial statements covering the same reporting period. However, IFRS S1 allows for temporary transition relief and permits entities to report their annual sustainability related financial disclosures after publishing their related financial statements with their half year financial reports in their first annual reporting period of adoption.
Comparative Reporting relief
Unlike the case of first time adopters of IFRS's, for IFRS S1 and S2, comparative information is not required to be disclosed in the first annual reporting period, but in the second year, a preparer of financial information must provide comparative information on sustainability related risks and opportunities including climate, the reverse can also be the case, where if the preparer shows a comparison in the first year of adoption, he need not show in the second year of adoption.

Setting up Capacity Building Programmes for technical support to regulators like in Nigeria FRCN and other Stakeholders.
The IFAC President recently mentioned that IFAC is currently developing a curriculum for Accountants and Corporate reporters at no cost.

Developing and providing an adoption Guide to support regulators in their implementation Process

The above are the four fold strategy emerging from the IFRS Foundation and the ISSB in mitigating challenges posed by adopting the sustainability standards.

In curbing the Cost Benefit Analysis (CBA) challenge, **the ISSB has introduced the concept of ''reasonable and supportable information"** that is available at the reporting date without undue cost or effort to provide guidance on the information required in applying the standards which will aid preparers in areas of uncertain outcomes by guiding them to consider information that is reasonably available and clarifying that they do not need to carry a bunch of information.

ISSB has introduced the concept of skills, capabilities and resources available to the entity to address issues on human gap skills. This allows preparers to apply qualitative approaches in many instances in the adoption of IFRS S1 and S2 instead of quantitative approaches, this relief is to ensure that preparers can apply the requirements in such a way that is proportionate to their current circumstances but still provide useful information for the investing public.

ISSB is already partnering with IOSCO to deliver capacity building programmes tailored to a regulatory audience, like in Nigeria the FRCN and ISSB have delivered two of these programmes, the last one held in April 2013, the IFRS Foundation will also be holding one soon for COP 28 in the UAE.

The ISSB will also be monitoring implementation and its consequent challenges, this it will do through the recently inaugurated Transition Implementation Group (TIC) to support the Implementation of IFRS S1 and S2.

The TIG will be responsible for organizing public forum for all stakeholders in order to address any issues that will arise on the implementation of IFRS SI and S2, including addressing possible differences in practice.

Development of the 2024-2025 ISSB Work Plan
ISSB through its current Chairman Mr. Emmanuel Faber and Vice Chairman Mr. Sue Lloyd intends to mitigate the challenges of the sustainability standards adoption by the development of a future work plan commencing from next year 2024.
ISSB has identified four potential projects:
Sustainability related research projects on biodiversity ecosystems and ecosystem services, Human Capital, Human Rights and Integrated Reporting.
Sustainability Standards Reporting Adoption in Nigeria
The Financial Reporting Council (FRC) of Nigeria and the Nigeria Regulation Limited (NGX Reg Co) on Monday, June 26, 2023 launched the first two IFRS Sustainability disclosure standards (IFRS S1 and IFRS S2 standards) by the International Sustainability Standards Board (ISSB) to provide full information, support investor decision-making and facilitate international comparability to attract capital.
For now, Nigeria is the only African country that was been selected to launch the IFRS S1 and IFRS S2. The Standards were launched on the same day in other cities globally including Santiago, New York, London, and Frankfurt.
The launch at the Nigerian Exchange Group house will also feature a keynote address by a market regulator; a three-way fireside chat involving representatives of the FRC, ISSB and Nigerian Regulation Co; and a panel of highly experienced persons discussing the Standards and the increasing demand for credible sustainability disclosures as a tool to manage sustainability risks and opportunities and to unlock capital flows. The Standards provide a global baseline of sustainability disclosures that meet the information needs of investors to enable companies to provide comprehensive sustainability information to global capital markets and facilitate inter operations with disclosures that are jurisdiction specific aimed at reaching out to broader stakeholder groups.
They are designed to provide information, in an appropriate way, to support investor decision-making and facilitate international comparability to attract capital. They are cost-effective, decision-useful, and market-informed disclosure standards developed to help companies report what is required to meet investors' needs across markets globally.
It will be recalled that NGX Reg Co had revealed that there is an adoption readiness strategy mapped out to help Accountants and auditors in sustainability and climatic reporting, speaking at the recent three-day virtual workshop on IFRS Sustainability disclosure standards for companies as well as investors in the capital market, Tinuade Awe, Chief Executive Officer, NGX Reg Co said the adoption readiness working group is a creation of the FRC supported by the ISSB where basically a group of people are being put together in order to advise or help the FRC on a roadmap for getting to the adoption of these standards to work in Nigeria.
IFRS S1 General Requirements encompasses disclosure guidelines aimed at facilitating companies in conveying pertinent sustainability-related risks and opportunities they encounter across short, medium, and long-term horizons to investors.
IFRS S2 Climate-related Disclosures, on the other hand, furnishes explicit and more intricate climate-related disclosures, meant to complement IFRS S1.
Both sets of standards comprehensively integrate the guidance proposed by the Task Force on Climate-related Financial Disclosures (TCFD).

Conclusion and Recommendation
Murphy, Maguiness, Pescott, Wislang, Ma, and Wang (2005) state that it is common sensical to consider the five stakeholder groups as being indispensable in the functioning of a sustainable business. The business is financed by **Shareholders,** is allowed to exist by the **Community**, and has **Suppliers** providing materials and services for **Employees** to create goods and services, which **Customers** purchase in preference to goods and services of competition. Corporations do not oper-

ate in a universe composed solely of shareholders. Hence these groups of people or stakeholders are equally important for the organization for its very survival and growth.

If business needs the cooperation and collaboration of these groups who have some stake in the organization, organization need to manage them properly. Corporations must, in their pursuit of profit, should not harm various stakeholders. Instead they should go proactively to improve the working and living standards of their employees and contribute to the communities in which they operate and preserve and protect the environment. Berger and Luckmann (1966) and Tsoukas (1994) see Organizations as a socially constructed, emergent, process. An increasing concern with corporate accountability is expected of socially responsible organizations (Shrivastava (1995), Kernisky (1997); Schultz (1996).

In conclusion, the IFRS Sustainability standards –IFRS S1 and IFRS S2 were issued by the ISSB to integrate sustainability with financial reporting of companies and which will commence adoption for annual reporting periods beginning on or after 1st January, 2024.

It is recommended that Nigeria, will not just be among the first of nations to launch the adoption of the standards but will see this process as an instrument to a wakeup call to immediately commence a proper implementation by capacity building trainings, conferences and seminars for all relevant stakeholder including the inclusion of the adoption of the sustainability disclosure standards in its curriculum for tertiary institutions to foster a seamless transition of students to the job market place.

References

Adediran, S. A., & Alade, S. O. (2013).The impact of environmental accounting on corporate performance in Nigeria. *European Journal of Business and Management, 5(*23), 141 – 151.

Agbiogwu, F., Ihendinihu, I., & Okafor, C. (2016).Impact of environmental and social costs on performance of Nigerian manufacturing companies. *Journal of Finance, 4*(2), 61 – 73.

Bassey, B. E., Effiok, S. O., & Eton, O. E. (2013).The impact of environmental accounting and reporting on organizational performance of selected oil and gas companies in Niger Delta Region of Nigeria. *Research Journal of Finance and Accounting, 4*(3), 57 – 73.

Berger, P. L. & Luckmann, T. (1966).*The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. Penguin Books

Ezeagba, C. E., John-Akamelu, C. R., Umeoduagu, C. (2017). Environmental accounting disclosures and financial performance: A study of selected food and beverage companies in Nigeria (2006-2015). International Journal of Academic Research in Business and Social Sciences, 7(9), 162 – 174.

Ezejiofor, R. A., John-Akamelu, C. R., & Chigbo, B. E. (2016). Effect of sustainability environmental cost accounting on financial performance of Nigerian corporate organizations. *International Journal of scientific research and management, 4*(8), 4536- 4549.

Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman

Goodland, R. (1995). The Concept of Environmental Sustainability. *Annual Review of Ecological Systems 26,* 1-24.

Greenley, G. E., &Foxall, G. R. (1998). External moderation of associations among stakeholder orientations and company performance. *International Journal of Research in Marketing, 15*(1), 51 – 69

Ifurueze, M. S. K., Lyndon, M. E., & Bingilar, P. F. (2013). The impact of environmental cost on corporate performance: A study of oil companies in Niger Delta States of Nigeria. *Journal of Business & Management, 2*(2), 1-10.

International Financial Reporting Standard, IFAC website, www.ifac.org

Kernisky, D. A. (1997). Proactive Crisis Management and Ethical Discourse: Dow Chemical's Issues Management Bulletins 1979-1990. *Journal of Business Ethics, 16*(8), 843-853.

Meyer, J. W. &Rowan, B. (*1977*). Institutionalized organizations: Formal structure as Myth and Ceremony. *American Journal of Sociology 83*: 340–363.

Moffat, A. (2010). The Ceres Roadmap to Sustainability. *Ceres*, 45-64.

Morelli, J. (2011). Environmental sustainability: A definition for environmental professionals. *Journal of Environmental Sustainability. 1*: 1–10.

Murphy, B; Maguiness. , P; Pescott, C.; Wislang, S.; Ma, J. & Wang, R. (2005). Stakeholders' perceptions presage holistic stakeholder relationship marketing performance. *European Journal of Marketing, 39*(9/10), 1049-1059.

Nguyen, S. L., Pham, C. D., Nguyen, A. H., & Dinh, H. T. (2020). Impact of corporate social responsibility disclosures on bankruptcy risk of Vietnamese firms. *The Journal of Asian Finance, Economics and Business*, *7*(5), 81–90.

Nnamani, J. N., Onyekwelu, U. L., & Ugwu, O. K. (2017). Effect of sustainability accounting and reporting on financial performance of firms in Nigeria brewery sector. *European Journal of Business and Innovation Research, 5*(1), 1-15.

Nosratabadi, S.; Pinter, G.; Mosavi, A., Semperger, S. (2020).Sustainable banking; Evaluation of the European Business Models. *Sustainability, 12*, 2314

Okafor, T. G. (2018). Environmental costs accounting and reporting on firm financial performance: A survey of quoted Nigerian Oil Companies. *International Journal of Finance and Accounting, 7*(1): 1-6.

Onyinyechi, O. C., & Ihendinihu, J. U. (2016). Impact of environmental and corporate social responsibility accounting on organizational financial performance: Evidence from selected listed firms in Nigerian Stock Exchange. *Journal of Emerging Trends in Economics and Management Sciences, 7*(5), 291-306.

Robinson, J. (2004). Squaring the circle? Some thoughts on the idea of sustainable development. *Ecological Economics 48*, 369-384

Schultz, P. D. (1996). The morally accountable corporation: A postmodern approach to organizational responsibility. *Journal of Business Communication, 33*(2), 165-178.

Shrivastava, P. (1995). The role of corporations in achieving ecological sustainability. *Academy of Management Review, 20*(4), 936-960.

Tsoukas, H. (1994). *New thinking in organizational behaviour*. Butterworth Heinemann.

Utile, B. J., Tarbo, D. I., & Ikya, E. A. (2017). Corporate environmental reporting and the financial performance of listed manufacturing firms in Nigeria. *International Journal of Advanced Academic Research Social and Management Sciences, 3*(8), 15 – 25.

Effect of Financial Innovation on the Growth of Shadow Banking System in Nigeria

Marshal Iwedi PhD
Department of Banking and Finance
Faculty of Management Sciences
Rivers State University, Nkpolu-Oroworukwo. Port Harcourt, Nigeria
marshal.iwedi@ust.edu.ng
Precious Onyinyechi Okey-Nwala PhD
Department of Banking and Finance
Faculty of Management Sciences
Rivers State University Nkpolu-Oroworukwo, Port Harcourt, Nigeria

Abstract
This paper delves into the dynamic relationship between financial innovation and the burgeoning shadow banking system in Nigeria. It examines the implications, challenges, and future trajectories of this symbiotic growth. Factors such as technological breakthroughs, shifts in consumer behavior, and government initiatives promoting financial inclusion have propelled the expansion of financial innovation in Nigeria. This surge in innovation has both positive and negative ramifications for the shadow banking system, diversifying financial services but also posing risks due to inadequate regulation. Regulatory oversight is paramount to mitigate the risks posed by the burgeoning shadow banking system. The Central Bank of Nigeria (CBN) takes a leading role in regulating non-bank financial entities, implementing measures to enhance transparency, risk management, and consumer protection. Collaboration between regulatory bodies like the Securities and Exchange Commission (SEC) and the National Insurance Commission (NAICOM) is instrumental in ensuring comprehensive oversight. While the shadow banking system extends increased access to credit and financial services, it is not without challenges. Transparency and disclosure issues, along with interconnectedness risks, are prominent concerns. Technology has been a catalyst in driving financial innovation, particularly through mobile banking, digital payments, and peer-to-peer lending. Case studies of successful financial innovations in Nigeria, such as mobile money services and fintech-driven SME funding, exemplify the transformative potential of these innovations. The future of financial innovation in Nigeria holds promising prospects, underpinned by further technological advancements, including artificial intelligence and blockchain. Additionally, a continued focus on financial inclusion and a cashless economy will likely give rise to new financial products and services, propelling the growth of the shadow banking system. Collaborative efforts between regulatory authorities, industry stakeholders, and technology firms will be pivotal in striking a balance between innovation and regulation, ensuring the stability and integrity of the financial system. In conclusion, financial innovation has been instrumental in propelling economic growth and development in Nigeria. The simultaneous expansion of the shadow banking system, fueled by innovation, has broadened access to funding and financial services. However, effective regulation and oversight are imperative to mitigate risks and maintain financial system stability. By harmonizing innovation with regulation, Nigeria can bolster its financial sector and foster sustainable economic growth.

Keywords: Financial innovation, shadow banking system, technological advancements, regulation and oversight

Introduction

The shadow banking system plays a crucial role in providing liquidity and credit intermediation, thus complementing the traditional banking system. The shadow banking system refers to a network of financial intermediaries, activities, and markets that operate outside the traditional banking sector but perform similar functions. It includes entities such as investment funds, money market funds, insurance companies, and other non-bank financial institutions. On the other hand, financial innovation is the creation and implementation of new financial products, services, and technologies that aim to improve the efficiency and effectiveness of the financial system. It involves the development of novel ways of raising capital, managing risk, and allocating resources. Financial innovation plays a critical role in driving economic growth and development, as it enables businesses and individuals to access financial services and products that meet their specific needs. Nigeria has witnessed a significant increase in financial innovation, driven by various factors such as technological advancements, changing consumer preferences, and the need for financial inclusion.

In recent years, Nigeria has experienced a significant growth in the shadow banking system. This growth can be attributed to various factors, including the increasing demand for credit, the need for alternative sources of funding, and the emergence of innovative financial products and services. The shadow banking system in Nigeria has become an important source of financing for businesses and individuals who may not have access to traditional banking services. However, the rapid growth of the shadow banking system also poses risks to the stability of the financial system. The lack of regulation and oversight of these non-bank financial institutions increases the potential for misconduct, fraud, and systemic risks. Therefore, it is crucial to strike a balance between promoting financial innovation and ensuring the stability and integrity of the financial system. This paper among other things explores the relationship between financial innovation and the growth of the shadow banking system in Nigeria, highlighting its implications, challenges, and future prospects.

Factors Driving Financial Innovation in Nigeria

Several factors have contributed to the growth of financial innovation in Nigeria. Firstly, technological advancements, particularly in mobile banking and digital payments, have revolutionized the way financial services are delivered. This has led to increased financial inclusion, allowing individuals and businesses to access banking services and products conveniently.

Secondly, changing consumer preferences and behaviors have driven the demand for innovative financial products and services. As the Nigerian population becomes more tech-savvy and digitally connected, there is a growing need for personalized and convenient financial solutions.

Lastly, the government's commitment to promoting financial inclusion and economic development has created an enabling environment for financial innovation. Policies and initiatives aimed at fostering innovation and entrepreneurship have attracted investments and incentivized the development of new financial products and services.

Implications of Financial Innovation on the Shadow Banking System

The rapid growth of financial innovation in Nigeria has had both positive and negative implications for the shadow banking system. On the positive side, financial innovation has expanded the range of financial products and services available, providing individuals and businesses with more options for accessing credit, managing risk, and investing their savings.

However, the growth of the shadow banking system also poses risks. The lack of regulation and oversight increases the potential for fraud, misconduct, and systemic risks. Therefore, it is essential for regulators and policymakers to strike a balance between promoting financial innovation and ensuring the stability and integrity of the financial system.

Regulation and Oversight of the Shadow Banking System in Nigeria

Regulation and oversight of the shadow banking system are crucial to mitigate the risks associated with its growth. The Central Bank of Nigeria (CBN) plays a key role in regulating and supervising non-bank financial institutions and activities. The CBN has implemented various measures to enhance transparency, risk management, and consumer protection in the shadow banking sector.

Additionally, collaboration between regulatory agencies, such as the Securities and Exchange Commission (SEC) and the National Insurance Commission (NAICOM), is vital to ensure comprehensive oversight of the shadow banking system. These agencies work together to monitor and regulate non-bank financial institutions, ensuring that they comply with prudential standards and consumer protection regulations.

Challenges and Risks Associated with the Shadow Banking System

While the shadow banking system offers benefits such as increased access to credit and financial services, it also poses significant challenges and risks. One of the main challenges is the lack of transparency and disclosure. Unlike traditional banks, non-bank financial institutions are not subject to the same reporting requirements, making it difficult to assess their financial health and potential risks.

Another risk associated with the shadow banking system is interconnectedness. The activities of non-bank financial institutions are often interconnected with the broader financial system, making them susceptible to contagion risks. In the event of a financial crisis or economic downturn, the failure of one non-bank financial institution could have systemic implications.

Role of Technology in Financial Innovation in Nigeria

Technology has played a pivotal role in driving financial innovation in Nigeria. The widespread adoption of mobile phones and the internet has facilitated the development of innovative financial products and services, particularly in the areas of mobile banking, digital payments, and peer-to-peer lending.

Mobile banking has transformed the way individuals access financial services, allowing them to per-

form transactions, check balances, and access credit using their mobile devices. Digital payments have also gained popularity, reducing the reliance on cash and increasing financial inclusion.

Successful Financial Innovations in Nigeria

Several financial innovations have emerged in Nigeria, transforming the financial landscape and driving economic growth. One notable example is the introduction of mobile money services by telecommunication companies. This innovation has revolutionized the way Nigerians send and receive money, making financial transactions more convenient and accessible.

Another successful financial innovation in Nigeria is the establishment of fintech companies that provide alternative sources of funding for small and medium-sized enterprises (SMEs). These companies use technology and data analytics to assess creditworthiness and provide loans to businesses that may not meet the traditional lending criteria.

Prospects and Trends in Financial Innovation and the Shadow Banking System in Nigeria

The future of financial innovation in Nigeria looks promising, with several trends and prospects on the horizon. Firstly, the continued advancement of technology, particularly in areas such as artificial intelligence and block chain, is expected to drive further innovation in the financial sector.

Secondly, the increasing focus on financial inclusion and the promotion of a cashless economy will likely lead to the development of new financial products and services that cater to the needs of underserved populations. This will further drive the growth of the shadow banking system in Nigeria.

Lastly, the collaboration between regulatory authorities, industry stakeholders, and technology companies will be crucial in addressing the challenges and risks associated with the shadow banking system. Striking the right balance between innovation and regulation will ensure the stability and integrity of the financial system.

Conclusion

Financial innovation has played a pivotal role in driving economic growth and development in Nigeria. The growth of the shadow banking system, fueled by financial innovation, has provided individuals and businesses with alternative sources of funding and access to financial services. However, it is important to ensure that the growth of the shadow banking system is accompanied by effective regulation and oversight to mitigate risks and maintain the stability of the financial system.

As Nigeria continues to embrace financial innovation, it is crucial for regulators, policymakers, and industry stakeholders to work together to strike the right balance between innovation and regulation. This will enable the country to harness the benefits of financial innovation while mitigating the risks associated with the growth of the shadow banking system. By doing so, Nigeria can further strengthen its financial sector and drive sustainable economic growth.

References

Agarwal, R., & Dahiya, S. (2019). Shadow Banking in India: An Overview of the Regulatory Framework. Asian Development Bank Institute Working Paper Series, No. 971.

Anyanwu, J. C. (2016). "Economic Growth in Africa: Comparative Analysis of North and South Africa." *African Development Review*, 28(S1), 67-92.

Beck, T., & Demirguc-Kunt, A. (2006). "Small and medium-size enterprises: Access to finance as a growth constraint." *Journal of Banking & Finance*, 30(11), 2931-2943.

Beck, T., & Levine, R. (2004). "Stock markets, banks, and growth: Panel evidence." *Journal of Banking & Finance,* 28(3), 423-442.

Central Bank of Nigeria. (2021). Regulatory Framework for Mobile Money Services in Nigeria. Retrieved from https://www.cbn.gov.ng/Out/2021/CCD/Regulatory%20Framework%20for%20Mobile%20Money%20Services%20in%20Nigeria.pdf

Chibuike, O., & Chinwe, S. (2018). "The Role of Financial Innovation in Enhancing Financial Inclusion in Nigeria." *European Journal of Business and Management,* 10(32), 56-68.

Claessens, S., & Perotti, E. (2007). "Finance and inequality: Channels and evidence." *Journal of Comparative Economics,* 35(4), 748-773.

Demirgüç-Kunt, A., & Huizinga, H. (2010). "Bank activity and funding strategies: The impact on risk and returns." *Journal of Financial Economics*, 98(3), 626-650.

Levine, R. (2005). "Finance and Growth: Theory and Evidence." Handbook of Economic Growth, 1, 865-934.

Pozsar, Z., Adrian, T., Ashcraft, A., & Boesky, H. (2013). "Shadow Banking." *Economic Policy Review*, 19(2), 1-16.

Van der Veer, K., & Van Lelyveld, I. (2018). Shadow Banking and the European Regulatory Framework: Lessons from the Failure of Retail Bank. *Journal of Financial Regulation*, 4(2), 179-207.

World Bank. (2019). Financial Inclusion Overview - Nigeria. Retrieved from https://databank.worldbank.org/source/financial-inclusion-overview-nigeria

World Bank. (2021). Fintech Note: Nigeria. Retrieved from https://www.worldbank.org/en/topic/financialinclusion/brief/fintech-note-nig

World Economic Forum. (2018). The Future of Financial Services: How disruptive innovations are reshaping the way financial services are structured, provisioned and consumed. Retrieved from http://www3.weforum.org/docs/WEF_The_future_of_financial_services.pdf

Financial Ratio Analysis: A Modeling for Sustainability in the Interpretation of Manufacturing Companies' Financial Statement in Nigeria

Ogbada, Eyong Ikwa, PhD, FCCA, MTMN
Department of Accounting
Michael Okpara University of Agriculture, Umudike
eiogbada@gmail.com
Nwawuru, Clifford Ebere
Department of Accounting
Michael Okpara University of Agriculture, Umudike
nwawuruc@yahoo.com

Abstract
Financial ratios are widely used for modeling purposes both by practitioners and researchers. This paper presents three different types of financial ratios, the accrual ratios, the cash flow ratios, and the market-based ratios. The paper makes use of deductive approach drawn from theoretical considerations and the empirical properties of the financial ratios of the Treasure Ventures Ltd. In addition, a case study of the Treasure Ventures Ltd, an entrepreneur operating a manufacturing company in Nigeria was used for practical illustration. The results revealed that the company did not perform well within the period under consideration. The paper therefore concludes that should proper harnessing of financial ratios be adopted, it can obviously provide invaluable insight for managers and investors.

Keywords: Entrepreneurs, financial ratios, financial statements, interpretation, manufacturing companies

Introduction

Financial ratios are widely used for modeling purposes both by practitioners and researchers. Firm's financial report could interest many parties, like the owners, management, personnel, customers, trade creditors, competitors, regulatory agencies, potential investors, take-over bidders, trade unions, financial analysts and researchers, each having unique need(s). Practitioners use financial ratios to forecast the future success of companies, while the researchers' main interest has been to develop models with them.

The history of financial statement analysis dates far back to the end of the previous century (Horrigan, 2018). Flowever, the modern quantitative analysis has developed into its various segments during the last two decades with the advent of the electronic data processing techniques. The empirical emphasis in the research has given rise to several, often loosely related research trends in quantitative financial statement analysis. Theoretical approaches have also been developed, but not always in close interaction with the empirical research.

Historically, one can observe several major themes in the financial analysis literature. Salmi and Martikainen (2014), gave the following existing themes: the functional form of the financial ratios, i.e. the proportionality discussion, distributional characteristics of financial ratios, classification of financial ratios, comparability of ratios across industries, and industry effects, time-series properties of individual financial ratios, bankruptcy prediction models, explaining (other) firm characteristics with financial ratios, stock markets and financial ratios, forecasting ability of financial analysts vs. financial models, estimation of internal rate of return from financial statements.

Technically, financial ratios can be divided into several, sometimes overlapping categories. A financial ratio is of the form X/Y, where X and Y are figures derived from the financial statements or other sources of financial information. One-way of categorizing the ratio is on the basis of where X and Y come from (Foster, 2018, and Salmi, Virtanen and Yli-Olli, 2019). In traditional financial ratio analysis, both the X and Y are based on financial statements. If both or one of them comes from the income statement, the ratio is called dynamic while if both come from the balance sheet, it is static. Ratios can be expressed in form of %, fraction, proportion etc.

Ratio is one of the most widely used forms of financial analysis. It is the study of relationships between or among various items on financial statements. It provides a quick and relatively simple means of examining the financial health of a business. In terms of strength and weakness they can provide data for decisions such as acquisition, disposal or lending decision. When ratios reveal weaknesses, proper correction can be made before irreparable damage is done. The way a particular ratio is presented will depend on the needs of the users of the information.

The sources of information for analysis and interpretation are income and expenditure or profit and loss accounts; statement of financial position or statement of assets and liabilities; notes to the accounts; Chairman's report; Directors' report; Auditors' report; statement of source and application of funds; five-year financial summary; stock exchange year book /daily summary; value added statement and cash flow statements.

The primary areas of the literature concerning the theoretical and empirical basis of financial ratio analysis are the functional form, distributional characteristics, and classification of financial ratios. However, this paper will focus on the last one i.e. classification of financial ratios and their applications. In this paper, many widely used ratios shall be discussed, but the discussion is not all-inclusive. Different industries may have many ratios uniquely suited to their needs, which are not used by others and which are not discussed in this paper. For example, the key ratio for the airline industry is occupied seats compared to available seats; new ratios can be generated by simply comparing any one number to another, provided reasonable relationship between the two exists.

The paper is divided into five sections. Section one gives the introduction while section two examines the basis of comparison; section three gives the classifications of ratios, the application of ratios is examined in section four and conclusion is summarized in section five.

Benchmarks for Comparison

One can only assess the appropriateness of the ratios on the basis of three principal benchmarks. The first is the firm's history, otherwise known as intra- company analysis. This involves the analysis of performance within a business organization. For instance, the comparison of the performance of marketing department with finance department or the comparison of present performance with past performance. This analysis is known as Trend Analysis. It enables one to discover favorable or unfavorable trends that are developing gradually, as well as pointing out any variable that has changed significantly over time usually one year.

The second is to compare the firm with specific competitors. This is known as *inter-company analysis or cross-sectional* analysis. It involves the comparison of the performance of a firm with the performance of similar firm(s). Firms must share the same characteristics e.g. size, year(s) under consideration etc. If the competitors are publicly held companies, copies of their annual reports can be obtained and compared with the chosen firm. This approach is especially valuable in helping to establish why a firm is doing particularly better or worse than a specific competitor.

The third type of benchmark is *industry-wide comparison.* For example, if the current ratio of a firm is 2, and the industry average is 2.4, is that a substantial discrepancy? Published industry data may show that 25 percent of the firms in the industry have a current ratio below 1.5. In this case, one may not be too concerned that the ratio of 2.0 is too low. It is still well above the bottom quartile of firms in the industry. On the other hand, if only 25 percent of the firms in the industry have a current ratio of less than 2.1 over three-quartile of the firms in the industry have a higher current ratio than those with 2.0. This might be a cause for some concern. At the very least, those with 2.0 might want to investigate why their ratio is particularly low, compared to the industry.

Classification of Ratios

Generally, all ratios are grouped into three. These are accrual ratios, cash flow ratios and market-based ratios.

Accrual Ratios: The accrual ratios are subdivided into the following ex- ante categories: liquidity ratios; capital adequacy ratios; profitability ratios; efficiency ratios; operating ratios; risk ratios and volume ratios.

Cash Flow Ratios: There are theoretical differences between cash and accrual based figures. The proponents of cash flow accounting often put forward, either explicitly or implicitly, that cash flows impart such additional information as is not contained in the accrual based figures and ratios (Rayburn 2016, Wilson (2018, 2019), Bowen & Burgstahler & Daley 2017, Ismail & Kim 2018, and Sudarsanam & Fortune 2019). It has also been suggested that the time series behavior of cash flows is fundamentally different from corresponding accrual based series. (Kinnunen, 2018). The six known cash flow based ratios are cash net income/cash from sales, cash operating income/total assets, cash flow to capital investments/cash based sales, cash outflow to materials & supplies and wages & salaries/ cash from sales, cash net income/interest bearing debt, and cash outflow to interest payments/ cash operating income.

Market-Based Ratios: These ratios are always factored along with the accrual-based and cash-based financial ratios. Technically, the market-based ratios ex ante are subdivided into three categories. The first category includes ratios, which are directly based on financial statements. The second category includes ratios where the numerator comes from financial statements, and the denominator from market-based information, or vice versa. The third category includes market-based indicators.

Firm ratios- the dividend payout ratio i.e. dividend per share / earnings per share.

Combined ratios- these are three in number- dividend yield, price per earnings ratio and the market-to-book ratio (it is calculated as the stock price per share divided by the book values per share).

Pure Market ratios- the first of these ratios is the return on the security. The return on a security has two main components, that is, the capital gain (or loss) and dividends. Security beta is the second variable of the category. The concept of beta is central in capital market theory,

and more specifically significant in the Capital Asset Pricing Model (CAPM). Consequently, the third variable in the category is the security's total risk. It is calculated as the variance of the security's returns.

However, the following broad categories provide a useful and basic understanding for explaining the nature of the financial ratios to deal with.

Profitability Ratios: This provides an insight to the degree of success in achieving primary purpose of creating wealth for the owner of business. They express the profit made in relation to other key figure in the financial statement or to some business resources.

Profitability ratios attempt to show how well the firm did, given the level of risk and types of risk it actually assumed during the year. Profitability ratios are: return on Capital Employed (ROCE), net profit margin, gross profit margin, return on owners' equity and expenses.

Liquidity Ratio: Liquidity ratios attempt to assess whether a firm is maintaining an appropriate level of liquidity. Too little liquidity raises the possibility of default and bankruptcy. Too much liquidity implies that long-term investments with greater profitability have been missed. It is vital to the survival of a business for there must be sufficient liquid resources available to meet maturing obligations. It includes: Current ratio /Working Capital Ratio, Quick Asset (or Acid Test) Ratio, Operating cash flows to maturing obligations and Inventories to Net Working Capital

Short-term solvency /Efficiency Ratio- (Activity Ratio): This group of ratio helps a firm to assess how efficiently it is operating and allow for comparison between firms and over time. They are used to measure the efficiency with which certain resources have been utilized within the business. They include: Debtors collection period, Debtors' turnover, Creditors' payment period, Creditors' Turnover, Stock- Turnover ratio, Number of days' stock in stores and Sales per employee.

Long term Solvency /Gearing/Stability Ratio: Gearing occurs when a business is financed, at least in part, by contribution from outside parties. The level of gearing associated with a business is often an important factor in assessing risk. They attempt to determine if the firm has overextended itself through the use of financial leverage. The ratios are: Fixed interest cover ratio, Long-term Debts to shareholders' funds and Total Debts to shareholders' funds.

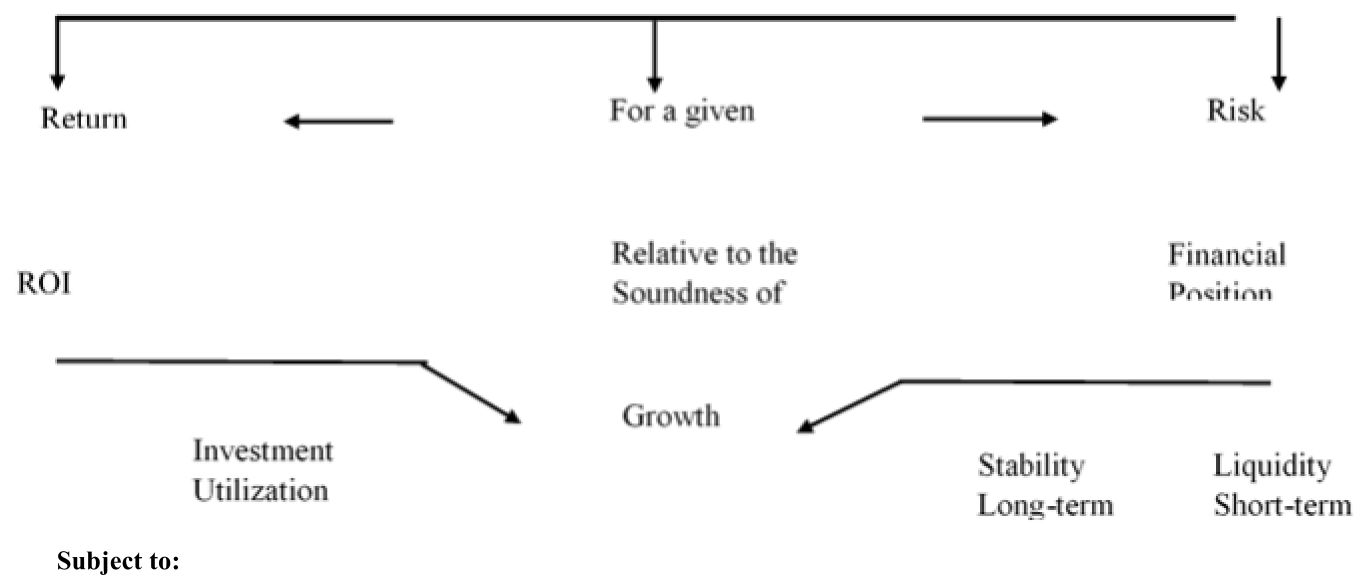
Investors/Shareholders ratio: Equity holders hope for added value from their investment through dividends and growth from capital gain (Philip 2021). Through the analysis of financial statements, these ratios provide shareholders with a guide to assess the returns on their investments and their dividend position. They are: Earnings per share, Price/Earnings Ratio (P/E Ratio), Earnings yield, Net Assets per Share, Dividends per share, Divided Yield Payout Ratio, Divided Yield Ratio, Divided Cover and Operating Cash flow per Share.

A summary of key financial Ratios

RATIOS	HOW CALCULATED	WHAT IT SHOWS
LIQUIDITY RATIOS 1. Current Ratio	Current Assets / Current Liabilities = X:Y	It indicates the extent to which assets are expected to be converted to cash, cover the claims of short-term creditors. A higher Ratio is normally preferred to a lower ratio- 2:1
2. Acid Test Ratio	Current Asset - Stock / Current Liabilities = X: Y	A treasure of the firm's ability to pay off short-term obligations without relying upon lire sale of its inventories. As general rule, a quick assets ratio of 1:1 is accepted to be ideal.
3. Inventory to Net Working Capital	Inventory / Net Working Capital	A measure of the extent to which the Ann's WC is tied up in stock.
4. Operating Cash flow to Maturing Obligations	Operating Cash Flows / **Current liabilities**	It provides a further indication of the ability of tire business to meet it's maturing obligations. The higher this ratio, the better the liquidity of tire business.
PROFITABILITY RATIOS I. Return on Capital Employed (ROCE)	NPBI&T x 100 / Capital employed = x%	The ratio shows the efficiency of management in utilizing the resources placed at its disposal. It is a primary' measure of profitability.
NB-ROCE is the product of two secondary ratios ROCE = Profit margin x Asset turnover Profit / Sales x sales / Cap.Emp = Profit / Cap.Emp.		
2. Return on Owners' Equity (ROE)	NPAT & Pref Sh. (If any) x 100 Ord. / Shr.Cap. + Reserves = X%	A measure of the rate of return on stockholders' investment in the enterprises This ratio compares the amount of profit for the period available to the owners to the owners' stake in the business.
3 Net Profit margin	Net Profit x 100 / Sales = **X%**	This ratio is indicates the business ability' to withstand adverse conditions which may arise from several sources, e.g. fall in price, declining sales
4 Gross Profit margin	Gross Profit x 100 / Sales = X%	The ratio is a measure of profitability in buying (or producing) and selling goods before other expenses are taken into account.
5. Expenses %	Individual Expense x 100 / Total Expenses = **X%**	This ratio shows the relative weight of each item of expense in relation to total expenses
6 Expenses to sales %	Individual Exp X 100 / Sales = **X%**	This ratio helps to highlight the sources of the improvement or deterioration in the bjet Profit to Sales %.
SHORT-TERM SOLVENCY 1. Debtors' Collection Period	Ave. **Tr.** Debtors x 365 days **Credit Sales** = **X days**	Indicates the average length of time the firm must wait after making a sale before it receives payment
2. Debtors' Turnover * closing trade debtor can be used if average debtor is not available	Credit sales / Ave. Trade Debtors = X times	It expresses the number of times trade debtors are turned over during the period.
3. Creditor Payment Period NB = DCP < CPP is Favorable.	Ave. Trade Creditor x 365 days / Credit Purchase = X days	This ratio measures how long, on average, the business takes to pay its trade creditors.
5. Stock Turnover Ratio NB- High stock turnover ratio is overtrading	Cost of goods sold / Average Stock = X times	This ratio measures the physical turnover of trading stock during the period. The shorter this period, the higher the rate of turnover in the accounting period.
6. Stock Turnover Period	Aver. Stock x 365 days / Cost of Goods Sold = X days	The ratio measures the average period for which stocks are being held. A business will normally prefer a low stock turnover period to a high period, as fund tied up in stocks cannot be used for other purposes.
7. Sales per employee	Sales / No of employee = X	This ratio relates sales generated to a particular business resource. It provides a measure of the productivity of the workforce.
LONG-TERM SOLVENCY/ GEARING/ STABILITY RATIOS. Gearing Ratio	Debt(Long Term Liab) x **100** Equity (Ord. Sh. + Reserve) = **X%** OR Fixed int. Loan + Pref..Sh. / Ord. Sh. + Reserve = X%	A widely used measure of the balance between debt and equity in the firm's long-term capital structure. The higher the debt in relation to equity capital, the higher the risk of the company being unable to pay the fixed financing charges, and consequently, the higher the risk of its being forced into liquidation.
Debt to Assets ratio	Total Debts x **100** / **Total Assets** = X%	Measures the extent to which borrowed funds have been used to finance the firm's operation.
3. Total Debt to Slaveholders Funds	Total Debts x 100 / Shareholders' Funds = X%	This ratio measures the solvency of a business and indicates the extent of cover for external liabilities. It is another measure of tire funds provided by creditors versus the hinds provided by owners.
4. Fixed Interest Cover	PB1&T / Fixed Interest = X times	This ratio is a measure of tie number of times fixed interest is covered by profits. Tie higher this ratio, the higher the level of confidence of lenders in tie ability of the company to repay loans and vice versa

5. Proprietary Ratio	Shareholders' funds x 100 Tangible Assets = X%	This indicates the degree to which unsecured creditors are protected against losses in the event of liquidation
INVESTOR/ SHAREHOLDER RATIOS 1. Earnings Per Share (EPS)	PAT-Pref.Div. X 100 No of issued Ord. Shares ranking for dividend = X kobo	Shows earning available to tie owners of common stock
2. Price/Earnings Ratio (P/E ratios)	Mkt. Price Per Share (MPS) EPS = X times	It is a measure of tie number of years it will take (assuming current earnings are maintained and ignoring taxation of dividends) to recoup the shareholders' investment either in the form of dividend received or in the form of capital growth arising from retailed earning?.
3. Earning Yield (EY)	EPS x100 MPS = X%	This ratio shows potential return on tie shareholder's investment. It is tie inverse of the P/E ratio
4. Dividend Per Share (DPS)	Goss Divided x100 No of Ord Sh. Issued = X kobo Gross Div.=interim + Final	Tie ratio provides an indication of the cash return, which an investor, receives from holding shares in a company.
5. Dividend Payment Ratio (DPR)	Annual DPS x 100 AT-EPS = X%	Indicates tie % of profit paid out as dividends.
6. Dividend Yield Ratio (DY)	$\frac{DPS}{MPS}$ X100 = X%	A measure of the returns the owners received in the form of dividend:' It is a measure of the cost of equity
7. Dividend Cover (DC)	Profit on Ord. Activities after Tax -Pre. Div. Gross dividend (Interim + Final) = X time Or DC = EPS DPS = X times	This ratio measures the number of times ordinary divided is covered by distributable earning.
8. Operating Cash Flow Per Share	Operating Cash flows- Pref. Div. No of Ord. Shares in issue = X kobo	A measure of the discretionary funds over and above expenses available for use by the firm.

Ratio Analysis Summary



Subject to:

Differing accounting policies

Changes in accounting policies
Time frame of analysis
Suitability of historical data as a prediction tool

Qualitative factors
Industry trends
External factors
Ration definition

Application of Ratio Analysis: A Case Study of Flour Mills of Nigeria Pic

This case study, will give a basic understanding of financial ratio interpretation.
The primary financial statements are the trading profit and loss account and the balance sheet.

1. Profit or Loss Account for the year ended 31st March,

	2022 N'000	2021 N'000
Turnover	30,922,902	23,735,633
Cost of sales	(26, 642.143)	(19,562.924)
Gross profit	4,280,759	4,172,709
Other operating income	426.581	135.228
	4,707.340	4,307.937
EXPENSES:		
Distribution	(163,060)	(239,411)
Administration	(2,328,88)	(1,711,934)
Depreciation	(629,752)	(511,152)
Interest and similar charges	(908.559)	(1.070.267)
	(4,030.26)	(3,532.764)
Profit before taxation	677,080	775,173
Taxation	(286,252)	(172,295)
Profit after taxation	390,828	602,878
Proposed dividend	(382,200)	(327,600)
Retained profit transferred to general reserve	8,628	275,278
Earnings per share	72k	110k
Dividend per share	70k	60k

The purpose of the trading account is to calculate the gross profit made by the business.
The profit and loss account provides the net profit by subtracting all the expenses of running the business from the gross profit. It also shows the amount of profit distributed to the shareholders in the form of dividends and the retained earnings, which have been reinvested in the business.

2. Statement of Financial Position as at 31st March

	2022	2021
ASSETS	N'000	N'000
Fixed assets	5,665,865	4,337,206
Interest in associated company	316,808	292,136
Trade investment	2,551	2,050

LONG-TERM ASSETS CURRENT ASSETS	5,985,224	4,631,392
Stocks and work-in-progress	5,100,130	5,283,953
Debtors and prepayments	3,277,811	2,007,044
Deposits for foreign currencies	202,087	108,273
Bank deposits, balances and cash	306,520	282,479
	8,886,548	7,681,749
CREDITORS: (Amounts due within one year)	(9,449,846)	(7,502,213)
NET CURRENT(LIABILITIES)/ASSETS	(563,268)	179,536
TOTAL ASSETS LESS CURRENT LIABILITIES	5,421,926	4,810,928
PROVISIONS FOR DEFERRED CHARGES		
Deferred taxation	(560,602)	(476,259)
Medium term loan	(885,068)	-
NET ASSETS	3,976,256	4,334,669
CAPITAL AND RESERVES		
Share capital	273,000	273,000
Share premium	1,065,930	1,065,930
Capital reserve	836,868	836,868
General reserve	1,800,458	2,158,871
SHAREHOLDERS' FUNDS	3,976,256	4,334,669

Ratio Analysis

The Financial Analyst must be able to analyze the accounts of a business by calculating the following ratios.

Profitability (based on the figures in the account of Flour mills of Nigeria Plc. above)

Gross Profit Margin = $\frac{Gross\ Profit}{Sales} x \frac{100}{1} = \frac{4,280,759}{30,922,902} x$ 100 $\frac{4,172,709}{23,735,633} x$ 100

13.84% 17.58%

Net profit Margin = $\frac{Net\ Profit}{Sales} x \frac{100}{1} = \frac{390,828}{30,922,902} x \frac{100}{1} \frac{602,878}{23,735,633} x$ 100

1.26% 2.54%

Return on investment x 100 = $\frac{Net\ Profit\ x\ 100}{Capital\ Employed} = \frac{390,828}{3976,256}$ x 100 $\frac{602,878}{4,334,669}$

9.83% 13.91%

Liquidity

Current Ratio (CR)

CR = Current Assets: Current Liabilities

8,886,548: 9,449,846 7,681,749: 7,502,213

0.9:1 1.02:1

Acid Test = {Current Assets less Closing Stock}: Current Liabilities

(8,886,548 - 5,100,130): 9,449,846 (7,681,749 - 5,283,953): 7,502,213

0.4: 1 0.32: 1

Gearing

Debt Equity Ratio = Debt X 100 9.449.846 x 100 7.502.213 x 100

Equity 3,976,256 4334,669

237.7% 173.1%

Interpretation of Ratios

At this juncture, the Financial Analyst is mandatorily to comment on the ratios calculated, hence;

The ratios for ***Treasure Ventures Ltd*** over the last two years.

	2022	2021
Gross Margin	13.84%	! 3.84%
Sales Margin	2.54%	1.26%
Return on investment	13.91%	9.83%
Current Ratio	1.02:1	0.9:1
Acid Test ratio	0.32 :1	0.4 :1
Gearing	173%	237%

Profitability

The gross profit margin has decreased by 3.74% in 2001. The net profit margin has only reduced by 2.54%. As gross profit decreased by 3.74%, this indicates that management has allowed the expenses to sales ratio to decrease. The reasons for this should be investigated. The return 'on investment has decreased to 9.83% in 2001 by 4.08%. This indicates that the firm is not using its finance efficiently as the returns earned are lesser than that available in financial institutions. It is also lower than the current rate of interest on loans, which means that the company is not making efficient - se of borrowed funds.

Liquidity. (The ability to pay short-term debts from current assets.)

The current ratio has not improved since it decreased from 1.02:1 to 0.9:1 in 2001. A ratio of 1.5:1 is often considered ideal, so the company has liquidity problems especially in 2001. The acid test ratio has little improvement from 0.32:1 to 0.4:1. A ratio of 1:1 is often considered ideal, so this indicates that the company is having problems with closing stock in relation to liquidity.

Gearing

The gearing ratio in 2000 of 173% indicates that the firms lowly geared equity < debt). By 2001, the firm has become highly geared at 237%. This is a high-risk strategy as it exposes the company to interest and loan repayments.

Limitations of Ratios

They offer only quantitative comparison.

Standards of comparison are imperfect due to changes in accounting standard.

There are difficulties in comparing with other firms.

Different definitions for same ratio.

Different capital structures and size.

Inflation may lead to misleading results.

Bias during rapid growth stage or industry decline.

They are prepared annually- lots of change in between.

Tell us what has happened, not what will happen.

Different financial and business risk profile.

Selective application of government incentives to various companies.

Window dressing. These are techniques applied by an entity in order to show a strong financial po-

sition.
Despite these limitations, proper use of financial ratios can provide invaluable insight for managers and investors alike. Analysts should be aware of this fact and make adjustments as necessary. Ratios analysis conducted in a mechanical, unthinking manner is dangerous, but if used intelligently and with good judgment, can provide useful insights into the firm's operations.

Conclusion

Through the decades practitioners and researchers have come up with a vast number of financial ratios to be used in the evaluation of the performance and financial status of business firms. This facilitates essential reductions in the number of the potential financial ratios, without any marked loss of information content in the financial statement analysis results.

This paper covered three different types of financial ratios, the accrual ratios, the cash flow ratios, and the market-based ratios. With traditionally concentrated effort on accrual-based figures, the study involving cash flow ratios in the categorization has been scanty in market-based ratios especially, which have practically been lacking from the earlier studies and which perhaps has been the resultant non-appreciable performance of the company within the period under consideration. It was therefore pertinent to conclude that should proper harnessing of financial ratios be adopted, it can obviously provide invaluable insight for managers and investors.

In addition, a ratio can be high or low for two reasons. A ratio is high because the numerator is high or the denominator is low. A ratio is low because the numerator is low or the denominator is high. When interpreting the ratio, one needs to ascertain which part of the fraction is the primary cause of the figure being high or low. This will lead to a better analysis.

References

Bowen, R.M., Burgstahler, D. and Daley, L.A. (2017). The Incremental Information Content of Accrual versus Cash Flows. *The Accounting Review,* 62(4):723-747.

Foster, G. (2018), Financial Statement Analysis. Prentice-Flali, first ed.

Foster, G. (2018), Financial Statement Analysis. Prentice-Hall, 2nd ed. Florrigan, J.O. (2018), "Some empirical bases of financial ratio analysis", *Accounting Review,* 19(5): 558-568.

Horrigan, J. O. (2018). A short history of Financial Ratio Analysis. The Accounting Review, 43: 284-294.

Ismail, B. E. and Kim, M. K. (2018). On the Association of Cash Flow Variables with Market Risk: Further Evidence. *The Accounting Review* LXIV (1):125-136.

Kinnunen, Juha (2018). The Time Series Properties of Accrual versus Cash-Based Income Variables: Empirical evidence from listed Finnish Firms. Doctoral Dissertation. The Helsinki School of Economics.

Philip, E. (2021). Interpretation of accounts-shareholders' investment ratios and risk. Accounting Technician Scheme, Relevant to Paper Cl.

Rayburn, J. (2019). The Association of Operating Cash Flow and Accruals with Security Returns. Supplement to the *Journal of Accounting Research* 24:112-133.

Salmi, T., Virtanen, I., and Yli-Olli, P. (2019). On the classification of financial ratios: A factor and transformation analysis of accrual, cash flow, and market-based ratios, Acta Wasaensia, no 25. Also published on the World Wide Web as *http://www.uwasa.fi/~ts/sera/sera.htmi.*

Salmi, T., & Martikainen, T. (1994). A Review of the Theoretical and Empirical Basis of Financial Ratio Analysis. The *Finnish Journal of Business Economics,* 4:426-448.

Sudarsanam, P.S. and Fortune, L.H. (2014). Relative Usefulness of Accrual-based and Cashflow-based Earnings in Security Evaluation: An Empirical Test. Presented at the EAA Annual Conference in Stuttgart 5-7 Apr.

Wilson, G. P. (2018). The Relative Information Content of Accruals and Cash Flows: Combined Evidence at the Earnings Announcement and Annual Report Date. Supplement to the *Journal of Accounting Research* 24:165-200.

Bank Credits and Advances on Economic Growth in Nigeria

Uzah, C. K.
Rivers State University
uzahchetakingsley@gmail.com
Egileoniso, D. J.
Rivers State University
Odozi, V. C.
Rivers State University

Abstract

This study focused on the effect of commercial banks loans and advances on Nigerian economic growth. The objective was to examine the effect of sectoral commercial banks loans and advances on Nigeria economic growth. Time series data were collected from Central Bank of Nigeria Statistical Bulletin. Gross domestic product was used as dependent variable while commercial banks loans and advances to manufacturing sector, agricultural sector, mining and querying and export were used as independent variables. Ordinary least square methods of cointegration, augmented Dickey Fuller unit root test, granger causality test and vector error correction model were used as data analysis methods. The study found that 97.1 percent variation in Nigeria gross domestic product could be explained by variation in bank loans and advances to the various sectors of the economy. commercial banks loans and advances to mining and querying have positive but no significant effect on Nigeria economic growth, commercial banks loans and advances to manufacturing sector have positive and significant effect, commercial banks loans and advances to export have positive and significant effect while commercial banks loans and advances to agricultural sector have positive but no significant effect on Nigeria economic growth. From the findings, the study concludes that there is no significant relationship between commercial banks loans and advances to agricultural sector and Nigeria economic growth, there is significant relationship between commercial banks loans and advances to manufacturing sector and Nigeria economic growth, there is significant relationship between commercial banks loans and advances to export sector and Nigeria economic growth while there is significant relationship between commercial banks loans and advances to export sector and Nigeria economic growth. The study recommend that macroeconomic and monetary policy environment that encourages commercial banks loans and advances and government through Central Bank of Nigeria should strengthen existing policies on the monetary policy instruments so as to increase and stabilize credit supply in the economy.

Keywords: Bank credits, economic growth, monetary policy environment, commercial banks loans

Introduction

The monetary authorities used credit policies to achieve macroeconomic growth. For instance, credit policies are used to achieve growth in some sectors of the economy (Akani and Onyema, 2017). The growth in domestic credit provides several benefits to the economy, especially to the developing economies like Nigeria. Efficient allocation of credit bolsters private investment and boosts economic activity. Reliable supply of domestic credit relieves local firms from pressure coming from exchange rate risk especially during an economic downturn. Sectoral distribution of commercial banks loans and advance is a strategic policy aim at channeling commercial banks loans and advances to sector that preferred to achieve the macroeconomic goals (Chodechai, 2004). Deposit money banks are the most important savings mobilization and financial resource allocation institution (Carletti et al, 2006) These Commercial banks role make them an important phenomenon in channeling financial resources to the various sectors of the economy. In performing this role it must realized that commercial banks have the potential, scope and prospect for mobilizing financial resources and allocating them to the productive sectors of the economy. Commercial banks are interested in efficient distribution of its loans and advances to the various sectors of the economy bearing in mind the three principles guiding its operations which are profitability, liquidity and severance (Ewert et al, 2007).
The divergences on the relationship between finance and economic growth among scholars, dates back to the inability of the classical monetary policy to restore equilibrium and provide remedy to the great depression of the 1930s that gave birth to the Keynesians fiscal policy theories of government intervention. This has been deepened by Scholars in the 21st century which has led to five hypothesis between finance and economic growth, no causal relation, demand-following, supply lending, negative causal link and independent. However, the inconclusive and controversial findings have motivated further research on the deposit money banks intermediate function nexus in the developing countries.

Again, despite the various reforms in the Nigerian banking sectors aimed at repositioning the institutions to effectively perform the intermediate financial functions to facilitate the realization of macroeconomic goals. The extents to which these reforms affect the realization of economic growth remain a knowledge gap. For instance the deregulation of interest rate in 1986 was aimed at lowering cost of credit and to mobilize savings. The banking sector consolidation and recapitalization was programmed to reposition Nigerian banking sector to be an active player and not a spectator in the global financial market (Toby, 2006), the introduction of rural banking scheme in phases in 1975 and the level of financial inclusion in the economy.

A critical examination of financial intermediate indicators such as bank credit shows that net domestic credit was 58.55% in 2009 but reduce to 8.09% in 2010, 54.76% in 2011 and -3.46% in 2012, 14.47% in 2013 and 29.84% in 2014 while credit to private sector within the same period was 26.80%, -3.81%, 44.28% and 6.83%, 6.86 and 11.88 (CBN, 2020). The effect of deposit money banks credit on economic growth has well been documented in literature.

Literature Review

Bank Loans and Advances

Bank credit is the borrowing capacity provided to an individual by the banking system in the form of credit or a loan. The total bank credit the individual has is the sum of the borrowing capacity each bank provides to the individual. Credit is the extension of money from the lender to the borrower. Sunny (2013) noted that credit implies a promise by one party to pay another for money borrowed or goods and services received. Credit cannot be divorced from the banking sector as banks serve as a conduit for funds to be received in form of deposits from the surplus units of the economy and passed on to the deficit units who need the funds for productive purposes. Banks are therefore debtors to the depositors of funds and creditors to the borrowers of funds.

Sectoral Allocation of Loans and Advances

This is the classification of the economy into categories of sectors and sub-sectors for banking lending. For example Nigeria, the economy is classified into two major sectors: the high priority sector and others. The high priority sectors include agriculture and manufacturing industries, while the other includes the rest of the sectors of the economy (Arora, 2014). Although lending by the CBN has exactly the same effect on the monetary base as an equivalent Open Market Operation, the effect of these actions on the allocation of credit is different. When the CBN makes a loan to a depository institution, it directly allocates credit to that institution. The effect on the allocation of credit is mitigated by the fact that the total supply of credit increases the borrowing institutions obtains credit and no one loses credit. The effect of CBN lending on the allocation of credit is intensified when the CBN offsets the effect of its ending activity on the total supply of credit through open market operations. In this case, borrowing institution obtains credit but the total supply of credit is unchanged. In effect, the borrowing institution is getting credit at the expense of some other individual or institution. The total supply of credit is reallocated (Bougheas, Mizen, & Yalcin, 2005). Historically, the CBN has offset the effect of discount window lending on the total supply of credit through open market operations.

However, in the wave of financial crisis during 2007 to date, the CBN has encouraged standing lending facility through the discount window and all loans to depository institutions are guaranteed at the CBN Discount Window. The practice of offsetting the effect of discount window lending on this monetary base means that discount window lending reallocated credit to the borrowing institution. The effect of discount window lending on credit allocation has not been an issue for two reasons (Bougheas, Mizen & Yalcin, 2005). First, the initial effect of an open market operation is on depository institutions. Consequently, a discount window loan to a depository institution that is offset through open market operations has the effect of reallocating credit among depository institutions. Second, and more important, discount window lending has been small historically, before 2007 when the financial crisis created liquidity crunch on the depository institutions. This was because Central Bank of Nigeria has discouraged depository institutions from borrowing at the discount window by charging penal rate.

Concept of Economic Growth

Economic growth refers to the increase in the amount of the goods and services produced by an economy over time. It is conventionally measured as the percent rate of increase in real gross domestic product, or real Gross Domestic Product. Growth is usually calculated in real terms, inflation adjusted terms, in order to net out the effect of inflation on the price of the goods and services produced. In economics, economic growth or economic growth theory typically refers to growth of potential output production at full employment, which is caused by growth in aggregate demand or observed output Arthur Lewis (1963) in his concept of economic growth incorporates the human element and sees the goal of economic growth as the growth of the output per head of population. Sichel and Eckstein (1974) defined economic growth as an increase in the ability of the economy to produce commodities service.

Todaro (1977) defined economic growth as the increase overtime of an economy's capacity to produce those goods and services needed to improve the wellbeing of the citizens in increasing numbers and diversity. It is the steady process by which the productive capacity of the economy is increased overtime to bring about rising levels of national income. Baumol and Blinder (1988) sees economic growth as occurring when an economy is able to produce more goods and services for each consumer, while Roger Miller (1991) defined economic growth as the expansion of the economy to produce more goods, jobs and wealth. Henderson and Poole (1991) defined economic growth as the increase in output and other measures of material progress at a certain period. It is also said to be either growth in national output as measured by GDP or GNP (which measures economic power), or growth in the national average standard of living as measured by the GNP per capita (which measures the well-being of citizens.

Source of Economic Growth

Economic growth has traditionally been attributed to increases in population, accumulation of capital, and increased productivity. Increases in productivity are a major factor responsible for per capita economic growth, especially since the mid-19th century. Most of the economic growth in the 20th century was due to reduced inputs of labour, materials, energy, and land per unit of economic output. The balance of growth has come from using more inputs overall because of the growth in output, including new kinds of goods and services (innovations). Opening up new territories was considered a growth factor in the past, not being important since the late 19th century, except in a few areas such as Latin America, where forests were cleared in the 20th century for agriculture and in sub-Saharan Africa. During the colonial era, what ultimately mattered for economic growth was the institutions and systems of government imported through colonization (Enu, 2009). During the Industrial Revolution, mechanization began to replace hand methods in manufacturing and new processes were developed to make chemicals, iron, steel and other products.

Since the industrial revolution, a major factor of productivity was the substitution of energy from, human and animal labour, water and wind power to electric power and internal combustion. Since that replacement, the great expansion of total power was driven by continuous improvements in energy conversion efficiency. Other major historical sources of productivity were automation, transportation infrastructures (canals, railroads, and highways), and new materials (steel) and power, which includes steam and internal combustion engines and electricity (Enu, 2009). Other productivity improvements included mechanized agriculture and scientific agriculture including chemical fertilizers and livestock and poultry management, and the Green Revolution. Interchangeable parts made with machine tools powered by electric motors evolved into mass production, which is universally used today.

Productivity lowered the cost of most items in terms of work time required to purchase. Real food prices fell due to improvements in transportation and trade, mechanized agriculture, fertilizers, scientific farming and the Green Revolution. Great sources of productivity improvement in the late 19th century were the railroads, steam ships, horse-pulled reapers and combine harvesters, and steam-powered factories. The inventions of processes for making cheap steel were important for many forms of mechanization and transportation. By the late 19thcentury, power and machinery were creating overproduction, which eventually caused a reduction of the hourly work week. Prices fell because less labour, materials, and energy were required to produce and transport goods; however, workers real pay rose, allowing workers to improve their diet and buy consumer goods and better housing. Mass production of the 1920s created overproduction, which was arguably one of

several causes of the Great Depression of the 1930s.Following the Great Depression, economic growth resumed, aided in part by demand for entirely new goods and services, such as household electricity, telephones, radio, television, automobiles, and household appliances, air conditioning, and commercial aviation (after 1950), creating enough new demand to stabilize the work week (Enu, 2009). The above can be illustrated mathematically as follows:
In accounting for an economy's growth, it is conventional to relate the level of output to its factor inputs. This permits us to write our production function as follows,

$$Y= f(K, L, D, E) \quad (2.1)$$

This function states that the output(Y) is a function of capital (k), Labor (L), Land (D) and entrepreneurship (E). But because of the difficulty of tracking the contribution of D and E to overall output growth of an economy's production specified by ignoring the role of these factors. Hence, specification of production function more realistically takes the form.

$$Y= f(k, L). \quad (2.2)$$

Thus an economy's level of output is a function of its labor and capital endowment. Output growth can be due to a growth in an economy's stock of capital overtime, assuming the labor force is constant. In other words, an economy can experience growth if it can accumulate capital overtime. Thus, we can write from our production function as follows.

$$dY/dt = f(dK/ dt) \quad (2.3)$$

If the assumptions of a constant labor force were to hold, the capital accumulation would result to an increase in the capital- labor ratio since ache man would work with more capital, hence he can produce more. Growth can also result from an increase in labor force which again permits us to write from our production function:

$$dY/dt = f(dL/dt) \quad (2.4)$$

By adding up these two sources of growth, we can only partially account for an economy's growth overtime. Indeed apart from these two sources an economy's growth also proceeds from technical progress. With technical progress the labor force can be equipped with progressively more efficient and more productive capital goods as time passes. Taken together, the inextricable link between growth and capital becomes obvious. Quite apart from the accumulation of capital resulting in capital becomes obvious. Quite apart from the accumulation of capital resulting in capital deepening bringing about increased output, innovation, leading to efficiency of the new capital assets embodying the fruits of innovation is also a vital determinant of an economy's growth overtime. Moreover, the increase in the efficiency of labor forces overtime (labor productivity) resulting from human capital development also account for the growth over time (Anyanwu and Oaikhenan, 1995).

The Financial Intermediation Theory

Financial intermediation is defined as the process of mobilization financial resources through financial institutions/ intermediaries which comprise of the surplus saving units of an economy for lending or allocation to the effectual deficit spending units. Financial intermediation theory was first formalized in the works of Goldsmith (1969) Mckinnon (1973) and Shaw (1973) who 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. This contrast with Robinson (1952) who argued that financial market are essentially handmaidens to domestic industry and respond passively to other factor that produce cross- country differences in growth.

There is general tendency for the supply of finance to move with the demand for it. It seems to be the case that where enterprise leads, finance allows. The same impulses within an economy, which set enterprises on foot, make owners of wealth venturesome, and when a strong impulse to invest is fettered by lack of finance, devices are invented to release it and habits and institutions are developed. The Robinson school of thought therefore believes that economic growth will lead to the expansion of the financial sector. Goldsmith (1969) attributed the positive correlation between financial development and the level of per-capita gross national products to the positive effect that financial development has in encouraging more efficient use of the capital stock. In addition, the process of growth has feedback effects on financial markets by creating incentives for further financial development.

Credit Rationing Theory

Access to credit is explained by credit rationing theory (Stiglitz and Weiss, 1981; Bester, 1985; Cressy, 1996; Baltensperger and Devinney, 1985). According to Stiglitz and Weiss (1981) credit rationing is said to occur when some borrowers receive a loan, while others do not. Credit rationing takes place at either financier level due to loan markets imperfection and information asymmetry or voluntarily by the borrowers (voluntary exclusion). At financier level, credit rationing occurs in a situation where demand for credit exceeds supply at the prevailing interest rate (Stiglitz and Weiss, 1981). There is scant literature on self-rationing, however, in situations where credit rationing is voluntary, Arora (2014) describes such borrowers as non-credit seekers due to personal, culture or social reasons or could be in the bracket of discouraged borrowers. Bester (1985) suggested that financiers may choose to reject some borrowers because of negative enticement effects. For example, for given collateral, an increase in the rate of interest causes adverse selection, since only borrowers with riskier investments will apply for a loan at a higher interest rate.

Similarly, higher interest payments create an incentive for investors to choose projects with a higher probability of bankruptcy (Afonso and Aubyn, 1997, 1998; Matthews and Thompson, 2014). On the other hand, for a fixed rate of interest, an increase in collateral requirements may also result in a decline in the lender's profits (Cressy, 1996). Stiglitz and Weiss (1981) showed that this happens if the more risk-averse borrowers, those that choose relatively safe investment projects, drop out of the market. According to Bester (1985) Andretti (1983), if financiers set collateral requirements and the rate of interest to screen investors' riskiness, then no credit rationing will occur at equilibrium. This is because increasing collateral requirements tends to result in adverse selection, even with risk-neutral investors (Bester, 1984a, 1985).

Loanable Funds Theory

Loanable funds theory of interest rate determination views the level of interest in the financial market as resulting from the factors that affect the supply and demand of loanable funds. (Saunders, 2010) interest rate in this theory is determined just like the demand and supply of goods is determined, supply of loanable funds increases as interest increases, other factors held constant. He goes further to explain that the demand for loanable funds is higher as interest rate fall, other factors held constant. Saunders (2010) identifies two factors among others causing demand curve for loanable funds to shift; economic conditions and the monetary expansion. Refers to the sum of money offered for lending and demanded by consumers and investors during a given period. The interest rate model is determined by the interaction between potential borrowers and potential savers.

According to the loanable funds theory, economic agents seek to make the best use of the resources available to them over their life time. One way of increasing future real income might be to borrow funds now in order to take advantage of investment opportunities in the economy. This will only work if the rate of return available from the investment were greater than the cost of borrowing. These borrowers would not be willing to pay higher real rate of interest than the rate of return available to capital. Savers are willing to save and lend only if there is a promise of real return on their savings that will allow them to consume more in future than they would otherwise be able to do. The extent to which people are willing to postpone consumption depends upon their time preferences (Saunders and Cornet, 2011).

Neo-Classical Growth

This was first propounded by Solow (1956) over 40 years ago. The model states that a sustained increase in capital investments increased the growth rate only temporarily, because the ratio of capital to labour goes up. The marginal product of additional units is assumed to decline and thus an economy eventually moves back to a long term growth-path with the real gross domestic products growing at the same rate as the growth of the workforce plus factor to reflect improving productivity. Neo-classical economists who subscribe to the Solow model believes that to raise an economy long term trend rate of growth requires an increase in labour supply and also a higher level of productivity of labour and capital. Differences in the rate of technological change between countries are said to explain much of the variation in growth rates. The neo-classical models treat productivity improvements as an exogenous variable which means that productivity improvements are assumed to be independent of the amount of capital investment.

___________________________Proceedings of the 4th Annual International Academic Conference

Empirical Review

Akintola and Adesanya (2020**)** focused on the relationship between deposit money banks (DMBs) and economic growth in Nigeria from 1994 to 2017. The study was carried out on secondary data obtained from real gross domestic product (RGDP), money supply (M2), bank credit (BC) and interest rate (INT). Data was sourced from the Central Bank of Nigeria statistical bulletin and National Bureau of Statistics annual report. Regression analysis was applied to estimate the relationship between deposit money banks (DMBs) and economic growth, while Ordinary Least Square (OLS) method was used to estimate the model with the aid of econometric view (E-view). Results obtained from the study showed that deposit money banks through money supply, credit to private sectors and interest rate charged on lending to borrowers significantly impacts on economic growth in Nigeria.

Sunday (2020) examined deposit money banks credit and economic growth in Nigeria from1980-2018. The study used time series data obtained from World Bank Development Indicators and Auto Regressive Distributed Lag (ARDL) techinque to examine the effect of domestic credit (DCPS) on GDP as a proxy for economic growth among other variables (INF, LIR). The result showed that 1 unit increase in domestic credit (dcps) has increased GDP by 6%. Inflation rate was found to shrink economic growth rate by 7%.The study concluded that deposit money banks credit was influential in driving economic growth in Nigeria for the 39 years period studied.

Okaro and Sunday (2016) evaluated the effects of deposit money bank's credit on economic growth and development in Nigeria (1981-2015). The study adopted the theory of financial liberalization which states that economic growth in a developing economy rest on an efficient financial sector that pools domestic savings and mobilizes foreign capital for productive investments. Multiple regression technique was used on an annual time series data from 1981 to 2015 sourced from CBN statistical bulletin. Estimated single equation models using Ordinary Least Square (OLS) regression framework was used and the findings indicate that total credit by deposit money banks to all sectors of the economy is positively and significantly related with economic growth in Nigeria. However, the study also revealed that while DMBs credit to private sector drives growth, DMBs credit to public sector frustrates growth due to crowding out effect.

Kolapo, Ojo, and Olaniyan, (2018) examined deposit money banks' credit to private public sectors and its nexus with economic development in Nigeria over the period1970-2016. The study adopted per capital income as proxy for economic growth, while credit to private sectors, credit to government sectors, money supply, and lending interest rate were the explanatory variables. The Ng-Perron and Augmented Dickey Fuller Breakpoint Unit Root tests were used in checking the presence of unit root, and in determining the order of integration of the variables. Findings revealed that bank credits to government sectors and lending interest rates were stationary series as $p < 0.01$. The Granger Causality feedback hypothesis establishes that banks' credit and economic growth Granger cause each other. The study recommended that monetary authorities should regulate the activities of deposit money banks to ensure that they gear up the growth of credits to private sectors by examining factors, such as lending interest rate which can possibly undermine lending to these sectors.

Toby and Zaagha (2020) empirically examined the effect of Central Bank policy rates on private sector funding in Nigeria. The purpose of the study was to examine the extent to which monetary policy affect private sector funding in Nigeria. Time series data were sourced from Central Bank of Nigeria Statistical Bulletin from 1985-2018. The study employed multiple regression models to estimate the relationship that exists between monetary transmission channels and private sector funding in Nigeria. Ordinary Least Square (OLS), Augmented Dickey Fuller Test, Johansen Co-integration test, normalized co-integrating equations, parsimonious vector error correction model and pair-wise causality tests were used to conduct the investigations and analysis. Empirical findings that Central Bank Policy rates has significant relationship with credit to private sector, credit to core private sector and no significant relationship with credit to small and medium scale enterprise sector.

Zaagha (2020) examined the effect of money supply on private sector funding in Nigeria. The purpose of the study was to examine the extent to which monetary policy affect private sector funding in Nigeria. Time series data was sourced from Central Bank of Nigeria Statistical Bulletin from 1985-2018. Credit to private sector, credit to core private sector and credit to small and medium scale enterprises sector was used as dependent variables while narrow money supply, broad money supply, large money supply, private sector demand deposit was used as independent variables. Ordinary Least Square (OLS), Augmented Dickey Fuller Test, Johansen Co-integration test, normalized co-integrating equations, parsimonious vector error correction model and pair-wise causality tests were used to conduct the investigations and analysis. The empirical findings revealed that money supply explains 82.1 percent variation on credit to core private sector, 85.2 percent and 23.4 percent of the variation in credit to private sector and credit to small and medium scale enterprises sector. The study conclude that money supply has significant relationship with credit to private sector, credit to core private sector and credit to small and medium scale enterprises sector.

Zaagha and Murray (2020) examined the effect of deposit money banks policy on private sector funding in Nigeria. Time series data was sourced from Central Bank of Nigeria Statistical Bulletin from 1985-2018. Credit to private sector, credit to core private sector and credit to small and medium scale enterprises was used as dependent variables while liquidity ratio and loan to deposit ratio was used as independent variables. Ordinary Least Square (OLS), Augmented Dickey Fuller Test, Johansen Co-integration test, normalized co-integrating equations, parsimonious vector error correction model and pair-wise causality tests were used to conduct the investigations and analysis. The empirical findings revealed that deposit money banks policy explains 40.8 percent variation on credit to core private sector, 28.1 percent and 58.9 percent of the variation in credit to core private sector and credit to small and medium scale enterprises sector. The study conclude that deposit money banks policy has no significant relationship with credit to private sector and credit to core private sector but has significant relation with credit to small and medium scale enterprises sector.

Nto, Mbanasor and Osuala (2012) examined the influence of monetary policy variables on banks' credit supply to SMEs in Nigeria. Time series data were collected on quarterly basis covering a period of 1995-2010 and were analyzed using fully Modified Least Squares (FMOLS). The results indicated that policies on interest rate and liquidity ratio were negatively and positively significant to SMEs.

Suleyman (2013) examined the monetary policies of the Central Bank of the Republic of Turkey on SMEs credit between 2003-2011.Autoregressive Moving Average (ARMA) test and VAR estimation models were use. Results show that money supply has a strong effect for manufacturing sector credit volume. Also, result shows that increase in the credit volume of large enterprises does not have any effect on the credit volume for SMEs. On the contrary, as credit volume of SMEs increases, credit volume of large enterprises decreases, which reveals a reverse causality between credit volume tendencies of different size firms.

Imoughele and Ismaila (2014) employed Co-integration and Error Correction Modelling (ECM) techniques to investigate the impact of commercial bank credit on Nigeria's SMEs between 1986 and 2012.The results revealed that SMEs and selected macroeconomic variables included in the model have a long run relationship with SMEs output. The study also reveals that savings time deposit and exchange rate have significant impact on SMEs output in Nigeria. The study also showed that interest rate has adverse effect on SMEs output.

Mohammed (2014) examined the necessity and strategies of re-positioning commercial banks in order to enhance the productive capacities of SMEs employing the Error Correction Model (ECM) and Co-integration test. The results showed that there was co-integration between re-positioning of commercial banks and capacities of SMEs to deliver services and also a significant dispersion resulting from lending conditions and macroeconomic variables. He argued that relaxing the conditions for lending offered by the banks through the apex bank, prioritizes the SMEs in order to contribute to economic growth.

Yet, Bartz and Winkler (2016) depicted a slightly different story with German data. In their study, small firms with limited resources appear to be able to mobilize additional funding during the financial crisis and do not appear to have lower growth. The authors suggest that fast-growing small firms maintain their advantage during this economic turmoil. The article also points out the peculiarities of the German economy, such as the lending traditions in the banking system and the government's strong liquidity support to banks. These differences may have acted to protect small businesses from negative impacts of the crisis.

De La Torre et al. (2010) documented competing evidence with bank survey data covering 12 emerging markets from both developed and developing countries. Their results suggest that the majority of SME financing comes from the broad range of services provided by large banks rather than relationship lending from small and niche banks, and that this pattern has not been affected by the Global Financial Crisis (GFC). Other work has looked at the aggravating effect of business cycles and financial shocks on financially constrained firms.

Goyal and Yamada (2004) looked at Japan's asset bubble burst in the 1990s. Both demonstrate that financially constrained firms had a more sensitive response during the business cycles than other firms. Studies on SME's financing-growth relationship at the specific periods of economic disequilibrium are still limited to evidence obtained from a few countries and the results are inconclusive. The global financial crisis in 2007 exposed the world economies to great economic challenges. A comprehensive understanding of how economic fluctuations affect the financing-growth nexus and a thorough assessment of the potential damage it might have had post-crisis on available financing options to small businesses requires more empirical evidence. 4. Financial Constraints and SME Survival and Growth SME's ability to effectively contribute to the economy with their unique advantages is conditional on firm survival. However, it is well-known that the SME sector is plagued by low prospects of firm survival. About 20 per cent of start-ups exit the market after the first year of entry and more leave in the following year. Only a small fraction move onto a path of fast growth (OECD, 2005; Bartelsman et al., 2005).

Bukvic and Bartlett (2003) further pointed to the high financing cost, e.g., cost for credit and loans, bank collateral requirements, alongside other bank charges and fees, as the key financial barriers to SME growth. It is the same story with Australian small businesses where access to finance, especially for innovation, tops the list of challenges they face (ASBFEO, 2019). The financing channel not only can hamper growth, but in some cases may be used as a tool to generate entry deterrence for new small business.

Cestone and White (2003) provided a theoretical framework on a mechanism where incumbents' choice of financial instruments deters the entry of others, suggesting that the existing lending relationship can manipulate the behaviour of potential investors towards new entrants. This financial barrier to newcomers is even more important when the credit market is less competitive (Cetorelli and Strahan, 2006). The above studies concentrate on either a single country or nations in similar economic development circumstances. To accommodate sufficient variation in the level of financial development, cross-country comparisons can shed light on the implications of improved credit market on SME finance for developed countries.

Beck et al. (2008a) exploited the full range of financing choices faced by large and small businesses, and find that property right protection greatly promotes SME's success in obtaining bank financing. Using a cross-country sample on industries from the manufacturing sector, Beck et al. (2008b) identify that financing development significantly benefits the growth of industries more dependent on SMEs.

Moreira (2016) confirmed the contribution of widened credit accessibility on the growth of SME. SME, access to credit and innovation the problem of access to financial resources is more acute for SMEs planning to invest in Research and Development (R&D) and innovation projects. The risks involved in R&D and innovation and the uncertainty of outcomes and doubts about the commercial success of the end product increase the size of the wedge between the cost of internal and external finance. The matter is made worse by the lack of complete appropriability of the returns due to knowledge spillovers.

Holtz-Eakin et al. (1994) examined entrepreneurial business growth using US federal income tax return data. By exploiting the bequest-induced increase in the available capital for entrepreneurs, the authors find that the substantial financial windfall from inheritances contributes to the growth of small businesses. Inheritances play two roles. First, they make it more likely for a small business to be started. Second, conditional on survival, they contribute to business growth through an extra capital injection.

Woodruff (2001) documented that informal credit and trade credit are much more common sources of financing than formal external finance for Mexican start-ups. Micro-enterprises located in states

with higher emigration rates to the US tend to receive more informal loans, which suggests that remittances are an important capital source and might affect microbusiness development.

Hernández-Trillo et al. (2005) compared the formal and informal financing sources available to small businesses and find that formal financial sources appear to invest in more efficient businesses than the informal instruments, providing a screening and monitoring function for micro-enterprise.

Severin et al. (2004) explored the possible complementarity between bank loans and trade credit. With US small businesses data, the study concludes that informal financing helps small enterprises build reputation and signal business quality, which facilitates their subsequent access to formal financing sources.

Literature Gap

Zaagha (2020) examined the effect of money supply on private sector funding in Nigeria. The purpose of the study was to examine the extent to which monetary policy affect private sector funding in Nigeria. Zaagha and Murray (2020) examined the effect of deposit money banks policy on private sector funding in Nigeria. Time series data was sourced from Central Bank of Nigeria Statistical Bulletin from 1985-2018. Nto, Mbanasor and Osuala (2012) examined the influence of monetary policy variables on banks' credit supply to SMEs in Nigeria. Suleyman (2013) examined the monetary policies of the Central Bank of the Republic of Turkey on SMEs credit between 2003-2011.Imoughele and Ismaila (2014) employed Co-integration and Error Correction Modelling (ECM) techniques to investigate the impact of commercial bank credit on Nigeria's SMEs between 1986 and 2012.Mohammed (2014) examined the necessity and strategies of re-positioning commercial banks in order to enhance the productive capacities of SMEs employing the Error Correction Model (ECM) and Co-integration test. The studies examined above different variables that affect bank lending while this study examined deposit money banks credit to various sectors and the impact on economic growth in Nigeria.

Methodology

This study whose data are drawn from Central Bank of Nigeria use quasi-experimental research design approach for the data analysis. This approach combines theoretical consideration (a-priori criterion) with the empirical observation and extract maximum information from the available data. The data for this study were secondary data sourced from the Central Bank of Nigeria (CBN) statistical bulletin 2020 publication various issues.

Model Specification

In attempting to investigate the relationship between commercial banks loans and advances and economic growth the study adopt the following models

GDP = f(CBCA, CBCM, CBCE, CBCMQ) (1)

Transforming equation 1 above to econometrics method, we have

$$GDP = \beta_0 + \beta_1 CBCA + \beta_2 CBCM + \beta_3 CBCE + \beta_4 CBCMQ + \mu \quad (2)$$

Where

GDP = Gross Domestic Product

CBCA = Commercial banks loans and advances to agricultural sector

CBCM = Commercial banks loans and advances to manufacturing sector

CBCE = Commercial banks loans and advances to Export sector

CBCMQ = Commercial banks loans and advances to mining and Querying sector

μt = Error term

Table 1: Variables and A-priori Expectations

Variable	Measurement	Notation	Expected Relationship
Gross Domestic Products	Monetary value of GDP	GDP	Dependent variable
Commercial banks loans and advances to agricultural sector	Monetary value of CB credit to agricultural sector	CBCA	+
Commercial banks loans and advances to agricultural sector to mining and Querying	Monetary value of CB credit to Mining and Querying sector	CBCMQ	+
Commercial banks loans and advances to agricultural sector to Manufacturing sector	Monetary value of CB credit to Manufacturing sector	CBM	+
Commercial banks loans and advances export	Monetary value of CB credit to export sector	CBCE	+

Source: Authors Research Desk 2021

Data Analysis Method

The technique used in this study is the Ordinary Least Square (OLS) estimation technique. The test instruments in the OLS are the T-statistics and F-test which were used to test the significance of variables and the overall significance of the regression respectively. Other test instruments also employed were the Durbin Watson test which was used to test the presence or absence of auto correlation between and among the explanatory variables and the adjusted R square used to test the percentage variation of the dependent and the independent variables.

Estimation Techniques

Stationarity Test

Time series data were assumed to be non-stationary and this implies that the result obtained from Ordinary Least Square (OLS) may be misleading (Suleman and Azeeze, 2012). It is therefore necessary to test the stationarity of the variables using the Augmented Dickey Fuller 1979 test to both level and first difference. The ADF test constructs a parameter correction for higher order correlation by assuming that the times series follows an auto regressive process. Mathematically expressed as

$$Dy_t = c + \beta_t + \alpha y_{t-1} + \sum_{t-i}^{k} \gamma_j \Delta y_{t-j} + \varepsilon_t \quad (3)$$

$$Dy_t = c + \alpha y_{t-1} + \sum_{t-i}^{k} \gamma_j \Delta y_{t-j} + \varepsilon_t \quad (4)$$

Equation 1 is used to test for the null hypotheses of non stationarity of unit root against trend stationaerity alternative in $Y_t$where y refers to the examined time series. Equation 2 tests the null hypotheses of a unit root against a mean stationarity alternative.

JohansenCointegration Test

The cointegration test established whether a long run equilibrium relationship exist among the variables. It is generally accepted that to establish a cointegration, the likelihood ratio must be greater than the Mackinnon critical values. The model can be stated as

$$\Delta X_t = \mu + \Psi_1 \Delta X_{t-1} + \Psi_2 \Delta X_{t2} + \ldots + \Psi_{p-1} \Delta X_t - p + 1 \quad (5)$$

Where μ is a constant term.

ΔX_t Represents the first cointegrating differences

Granger Causality

To determine the direction of causality between the variables, the study employed the standard Granger causality test (Granger, 1969). The test is based on Vector Error Correction Model (VECM) which suggests that while the past can cause or predict the future, the future cannot predict or cause the past.

$$Y_t = \alpha_o + \sum_{i=1}^{n} \alpha_1^y Y_{t-1} \sum_{i=1}^{n} X_{\alpha 1} X \mu \quad (6)$$

and

$$X_t = \beta_o + \sum_{i=1}^{n} {}_{\beta}^{y} Y_{t-1} \sum_{i=1}^{n} X_{\beta 1} X Y_t \quad (7)$$

Vector Error Correction Model

Co-integration is a prerequisite for the error correction mechanism. Since co-integration has been established, it is pertinent to proceed to the error correction model.

The VECM is of this form:

$$\Delta y_t = \alpha \beta y_{t-1} + \sum_{i=1}^{j-1} \Gamma_j \Delta y_{t-1} + \pi + \varsigma_t, t = 1, \ldots, T \quad (8)$$

Where Y_t is a vector of indigenous variables in the model. α is the parameter which measures the speed of adjustment through which the variables adjust to the long run values and the β is the vectors which estimates the long run cointegrating relationship among the variables in the model. π is the draft parameter and is the matrix of the parameters associated with the exogenous variables and the stochastic error term.

Results Discussions OF Findings

Table 2: ADF Test

Variable	ADF Statistic	MacKinnon @1%	MacKinnon @ 5%	MacKinnon @ 10%	Prob.	Decision	Summary
			ADF Test at Level				
GDP	1.424667	-3.646342	-2.954021	-2.615817	0.3783	1(0)	Not stationary
CBCMQ	-1.420992	-3.670170	-2.963972	-2.621007	0.5588	1(0)	Not stationary
CBCM	-1.689537	-3.646342	-2.954021	-2.615817	0.4271	1(0)	Not stationary
CBCE	-0.097977	-3.646342	-2.954021	-2.615817	0.9608	1(0)	Not stationary
CBCA	-0.330959	-3.661661	-2.960411	-2.619160	0.9762	1(0)	Not stationary
			ADF Test at First Difference				
GDP	-5.346340	-3.679322	-2.967767	-2.622989	0.0001	1(I)	Stationary
CBCMQ	-5.682585	-3.653730	-2.957110	-2.617434	0.0001	1(I)	Stationary
CBCM	-13.70508	-3.661661	-2.960411	-2.617434	0.0000	1(I)	Stationary
CBCE	-6.923119	-3.670170	-2.963972	-2.621007	0.0000	1(I)	Stationary
CBCA	-9.897963	-3.661661	-2.960411	-2.619160	0.0000	1(I)	Stationary

Source: Extract from E-view 9.0

The Augmented Dickey Fuller (ADF) unit root test was used to test whether the variables are stationary .and their order of integration. The ADF was preferable as it corrects for possible autocorrelation in the model, the result of the ADF unit root test. The ADF unit root test indicates that all the variables except total liability ratio were stationary, at level and first difference. However, following Harris (1995) and Gujarrati (2003), both I(1) and I(0) variables could be carried forward to test for cointegration which forms the basis of the next section. The Johansen cointegration test was used to test for the existence or not of a long run relationship among the variables. The Johansen methodology was preferable for the study because it has the advantage amongst others of allowing for more than one cointegration vector.

Table 3: Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.915878	147.5943	69.81889	0.0000
At most 1 *	0.710299	68.37881	47.85613	0.0002
At most 2	0.414573	28.73386	29.79707	0.0659
At most 3	0.267027	11.60063	15.49471	0.1771
At most 4	0.050551	1.659946	3.841466	0.1976
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.915878	79.21549	33.87687	0.0000
At most 1 *	0.710299	39.64495	27.58434	0.0009
At most 2	0.414573	17.13323	21.13162	0.1658
At most 3	0.267027	9.940687	14.26460	0.2159
At most 4	0.050551	1.659946	3.841466	0.1976

Source: Extract From E-View

The trace statistics from indicate no co-integrating equation while the maximum Eigen from the model one indicates at list 1 co-integrating equation. In conclusion, there is long run relationship between loans and advances and Nigeria economic growth.

Table 3: Pairwise Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic	Prob.
CBCMQ does not Granger Cause GDP	32	1.27154	0.2967
GDP does not Granger Cause CBCMQ		10.7306	0.0004
CBCM does not Granger Cause GDP	32	3.45218	0.0462
GDP does not Granger Cause CBCM		1.09962	0.3475
CBCE does not Granger Cause GDP	32	3.62040	0.0405
GDP does not Granger Cause CBCE		6.62117	0.0046
CBCA does not Granger Cause GDP	32	6.42444	0.0052
GDP does not Granger Cause CBCA		7.07914	0.0034

Source: Extract From E-View

The granger causality test presented in table 4 found that there is no causal relationship between commercial banks credit to mining and querying but there is a causal relationship between gross domestic product and commercial banks credit to mining and querying. There is a causal relationship between commercial banks credit to manufacturing sector but there is no causal relationship between gross domestic product and commercial banks credit to manufacturing sector. There is a causal relationship between commercial banks credit to export but there is causal relationship between gross domestic product and commercial banks credit to export. There is a causal relationship between commercial banks credit to agricultural sector and there is causal relationship between gross domestic product and commercial banks credit to agricultural sector.

Table 5: VAR Lag Order Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-1181.648	NA	1.12e+26	74.16552	74.39454	74.24143
1	-1004.276	288.2307	8.34e+21	64.64223	66.01635	65.09771
2	-952.5542	67.88438*	1.78e+21*	62.97214*	65.49137*	63.80719*

Source: **Extract From E-View**

From table 5 the study deduces that lag 2 is appropriate for the analysis and discussion of findings from the error correction model.

Table 6: Presentation ECM Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP(-1))	0.394791	0.297761	1.325865	0.2077
D(GDP(-2))	0.942967	0.312861	3.014018	0.0100
D(GDP(-3))	-0.556734	0.481012	-1.157423	0.2679
D(CBCMQ(-1))	-3.476401	10.72458	-0.324153	0.7510
D(CBCMQ(-2))	4.265515	3.587975	1.188836	0.2558
D(CBCMQ(-3))	7.796468	5.177793	1.505751	0.1560
D(CBCM(-1))	-8.768683	5.189150	-1.689811	0.1149
D(CBCM(-2))	21.04219	8.173556	2.574423	0.0231
D(CBCM(-3))	-8.772544	5.651294	-1.552307	0.1446
D(CBCE(-1))	-16.00968	6.926995	-2.311201	0.0379
D(CBCE(-2))	19.10576	9.214074	2.073541	0.0486
D(CBCE(-3))	8.291465	9.014256	0.919817	0.3744
D(CBCA(-1))	-32.52203	18.88858	-1.721783	0.1088
D(CBCA(-2))	29.46432	27.14890	1.085286	0.2975
D(CBCA(-3))	7.195256	15.52201	0.463552	0.6506
C	487.9620	490.8113	0.994195	0.3383
ECM(-1)	0.107489	0.199292	0.539353	0.5988
R-squared	0.971398	Mean dependent var		5125.256
Adjusted R-squared	0.936196	S.D. dependent var		4617.816
S.E. of regression	1166.435	Akaike info criterion		17.25838
Sum squared resid	17687428	Schwarz criterion		18.05239
Log likelihood	-241.8757	Hannan-Quinn criter.		17.51239
F-statistic	27.59480	Durbin-Watson stat		2.059844
Prob(F-statistic)	0.000000			

Source: Extract From E-View

The Parsimonious ECM result highlighted the significance of the effect of bank loans and advances on Nigeria economic growth. The result indicates that the relationship between bank loans and advances on Nigeria economic growth has mixed result, while some of the variables have positive impact at lag I it will record a negative impact at lag II. The estimated model show that 97.1 percent variation in Nigeria gross domestic product could be explained by variation in bank loans and advances to the various sectors of the economy. The f-statistic and probability found that the model is statistically significant. The Durbin Watson statistic found that there no serial autocorrelation among the variables. at lag II, the study found that commercial banks loans and advances to mining and querying have positive but no significant effect on Nigeria economic growth, commercial banks loans and advances to manufacturing sector have positive and significant effect on Nigeria economic growth, commercial banks loans and advances to export have positive and significant effect on Nigeria economic growth while commercial banks loans and advances to agricultural sector have positive but no significant effect on Nigeria economic growth.

Discussion of Findings

The estimated regression model found that there is positive and significant relationship between commercial loans and advances to agricultural sector and export and Nigeria economic growth. The study reveals that a unit increase in the variables added 21.0 and 19.1 percent on Nigeria economic growth. The positive and significant effect of the variables confirms our a-priori expectations and justifies the reforms in the banking sector such as the consolidation and recapitalization of the banking industry, the deregulations of interest rate and the rural banking scheme. The findings of the study is supported by theories such resource base theory, the credit rationing theory, the loanable fund theory and the normative approach to banking.

Empirically, the positive and significant effect of the variables confirm the findings of Akintola andAdesanya (2020**)** deposit money banks through money supply, credit to private sectors and interest rate charged on lending to borrowers significantly impacts on economic growth in Nigeria, the findings of Sunday (2020) that 1 unit increase in domestic credit (dcps) has increased GDP by 6%.

Inflation rate was found to shrink economic growth rate by 7%. the findings of Okaro and Sunday (2016) that while DMBs credit to private sector drives growth, DMBs credit to public sector frustrates growth due to crowding out effect, the findings of Kolapo, Ojo, and Olaniyan, (2018) that bank credits to government sectors and lending interest rates were stationary series as $p < 0.01$ and the findings of Toby and Zaagha (2020) that Central Bank Policy rates has significant relationship with credit to private sector, credit to core private sector and no significant relationship with credit to small and medium scale enterprise sector.

The estimated regression model found that there is positive but no significant relationship between commercial loans and advances to agricultural sector and mining and querying and Nigeria economic growth. The study reveals that a unit increase in the variables added 4.3 and 29.1 percent on Nigeria economic growth. The positive and no significant effect of the variables confirms our a-priori expectations and justifies the reforms in the banking sector such as the consolidation and recapitalization of the banking industry, the deregulations of interest rate and the rural banking scheme. The positive and no significant effect of the variables findings of the study is supported by theories such resource base theory, the credit rationing theory, the loanable fund theory and the normative approach to banking. Empirically, the positive and no significant effect of the variables confirm the findings of Zaagha (2020) that money supply explains 82.1 percent variation on credit to core private sector, 85.2 percent and 23.4 percent of the variation in credit to private sector and credit to small and medium scale enterprises sector. Zaagha and Murray (2020) that deposit money banks policy explains 40.8 percent variation on credit to core private sector, 28.1 percent and 58.9 percent of the variation in credit to core private sector and credit to small and medium scale enterprises sector and the findings of Nto, Mbanasor and Osuala (2012) that policies on interest rate and liquidity ratio were negatively and positively significant to SMEs.

Conclusion

The study found that 97.1 percent variation in Nigeria gross domestic product could be explained by variation in bank loans and advances to the various sectors of the economy. At lag II, the study found that commercial banks loans and advances to mining and querying have positive but no significant effect on Nigeria economic growth, commercial banks loans and advances to manufacturing sector have positive and significant effect on Nigeria economic growth, commercial banks loans and advances to construction and real estate have positive and significant effect on Nigeria economic growth while commercial banks loans and advances to agricultural sector have positive but no significant effect on Nigeria economic growth.

From the findings, the study concludes that there is no significant relationship between commercial banks loans and advances to agricultural sector and Nigeria economic growth. That there is significant relationship between commercial banks loans and advances to manufacturing sector and Nigeria economic growth. That there is significant relationship between commercial banks loans and advances to export sector and Nigeria economic growth. That there is significant relationship between commercial banks loans and advances to export sector and Nigeria economic growth.

Recommendations

The study recommend macroeconomic and monetary policy environment that encourages commercial banks loans and advances and government through Central Bank of Nigeria should strengthen existing policies on the monetary policy instruments so as to increase and stabilize credit supply in the economy.

The study therefore recommends that Central Bank of Nigeria should direct commercial banks to make bank charges and interest rate to be at moderate level to enable manufacturers and other productive sectors of the economy to have access to credit at affordable rate.

The federal government of Nigeria through its Central Bank should strengthen commercial banks to dispense more credits to private investors for sustained increase in economic activities and a robust monetary policy to check mate inflation.

There is need to decentralize the operation of the deposit money banks in the urban cities. Policies should be formulated to extend the operation of the deposit money banks to the rural communities, this will enable the institutions to mobilize much deposit and increase credit to the private sector.

References

Adelegan, A.E. (2018). Private domestic investment, domestic credit to the private sector and economic performance: Nigeria in perspective. *IOSR Journal of Economics and Finance*, 9 (3), 22-31.

Adeniyi1, A.M., Adeyemi, A.K, Salawudeen O.S., & Fagbemi, T.O. (2018). Monetary policy and bank credit in Nigeria: A Toda-Yamamoto Approach. *ACTA UNIVERSITATIS DANUBIUS, 14, (5), 718729*

Adigwe, P. K., Echekoba, F. N, & Onyeagba, J.B.C. (2015). Monetary policy and economic growth in Nigeria: A critical evaluation.*IOSR Journal of Business and Management (IOSR-JBM), 17(2), 110-119.*

Akani, H. W., Okonkwo V. I., &Ibenta, S. N. (2016). Empirical Analysis of Monetary Policy on Capital Market Activities: Evidence from Nigerian Economy. *Journal of Accounting and Financial Management 2 (3), 82 – 111.*

Akani, H. W.,& Onyema, J.I., (2017). Determinants of credit growth in Nigeria: A multidimensional analysis. *Journal of Economics and Sustainable Development,8(20)202- 215.*

Akintola, A.F., &Adesanya, O.A. (2020). Contribution of deposit money banks to economic growth in Nigeria (1994-2017).*International Journal of Scientific and Research Publications, 11(1), 78-95.*

Anigbogu, T. U., Okoli, I. M. &Nwakoby, N. P. (2015).Financial intermediation and small and medium enterprises performance in Nigeria (An aggregated analysis: 1980-2013).*European Scientific Journal, 11(28), 257-272.*

Courage, O.E., & Leonard, N.A, (2011).Impact of commercial banks' credit to the real sector on economic growth in Nigeria. *Oradea Journal of Business and Economics*, *University of Oradea, Faculty of Economics, 4(1), 38-46.*

D'pola, K. U. and Touk, M.C. (2016). The effect of commercial bank credit on the output of small and medium enterprises in Cameroon: Empirical evidence from 1980-2014. *Maghreb Review of Economic Management, 03 (3), - N° 02.*

Daniel, B.E. (2017). Liquidity management and performance of deposit money banks in Nigeria (1986 – 2011): An Investigation. *International Journal of Economics, Finance and Management Sciences 5(3), 146-161.*

Ezirim, B. C., Muoghalu, M. I., & Emenyonu, E. N., (2012). Environmental correlates of the intermediation function of the Nigerian financial superstructure: *A Preliminary Investigation. FBN Quarterly Review, .2, (4), 403-421.*

João B. R., Barroso, R. B., Gonzalez, B. F., &Nazar V. D. (2017). Credit Supply Responses to Reserve Requirement: loan-level evidence from macro prudential policy. *Banco Central do-Brasil. Working Paper Series 467.*

John, N. N. U. &Onwubiko, N. D. (2013). Challenges of bank credit among small and medium enterprises in Nigeria. *Journal of Economics and Sustainable Development, 4(6), 84-90.*

Karimo, T. M., & Ogbonna, O.L. (2017). Financial Deepening and Economic Growth Nexus in Nigeria: Supply-Leading or Demand-Following? *Economies MPDI Articles.*

Kolapo, F. T., Ojo, M. O., &Olaniyan, T. O. (2018). Deposit money banks' credit to privatepublic sectors and economic development nexus: Nigeria in focus. *International Journal of Academic Research In Business And Social Sciences, 8*(5), 215–233.

Leorne N. (2014). Implications of monetary policy for credit and investment in Sub-Saharan African (SSA) countries.*Political Economy Research Institute (PERI), Working Paper Series 356.*

Mitku, M. Y. (2018). Lending and cash required reserve: Empirical evidence from Ethiopian commercial bank. *European Scientific Journal.14, (13), 179-189.*

Mohammed, O. (2014). Re-positioning commercial banks to enhance the productive capacities of small and medium – scale enterprises (SMEs) for economic growth of developing nations: A focus on Nigeria. *International Journal of Public Administration and Management Research, 2(2), 193-198.*

Nasko, A. M. (2016). Impact of Monetary Policy on the Economy of Nigeria. *Pyrex Journal of Business and Finance Management Research, 29(4),* 163-179.

Nwanyanwu, O. J., (2011). An analysis of bank credit on the Nigeria economic growth (1992-2008). *Jos Journal of Economics, 4(2), 43-58.*

Nwoko, N. M., Ihemeje, J. C., &Anumadu, E. (2016).The impact of monetary policy on the economic growth of Nigeria.*An International Multi-disciplinary Journal, Ethiopia, 10(3),* 192-206.

Odior, S.I. (2013). The impact of commercial banks' credit to agriculture on agricultural development in Nigeria: An econometric analysis. *International Journal of Business Humanities and Technology, 3(1), 85 – 95.*

Ogolo, T. M. (2018). Monetary policy and commercial bank lending to the real sector in Nigeria: A time series study. *American Finance & Banking Review; 2, (1), 451-467.*

Okaro, C., & Sunday, O. (2016). Deposit Money Banks' Credit and Nigerian EconomicGrowth and Development 1981-2015.*Journal of Social Development.5 (5), 10-26.*

Olorunmade, G., Samuel, O.J., &Adewole, J. A. (2019). Determinant of private sector credit and its implication on economic growth in Nigeria: 2000-2017. *American Economic and Social Review, 5 (1), 45-60.*

Otalu, A. M. (2014). Monetary policy and commercial banks performance in Nigeria: an assessment of credit creation role. *The International Journal of Business and Management, 2(7), pp. 45 -51.*

Ovat, O. O. (2016). Commercial banks' credit and the growth of small and medium scale enterprises: The Nigerian experience. *Journal of Economics and Finance, 7(6), 23-30*

Robinson, O. O. (1952). Role of finance on the growth of small and medium enterprises in Edo state of Nigeria. *Journal of Educational and Social Research, 5, 241-248.*

Roger, M. (1991). The benefits of lending relationships: Evidence from small business data. *The Journal of Finance, 49(1), 3–38*.

Solow, R. M. (1956). A Contribution to the Theory of Economic Growth. *Quartaly Journal of Economics, 70*(1), 65-94.

Sunday, A.N. (2020).Deposit money banks credit and economic growth in Nigeria. *Lafia Journal of Economics and Management Sciences A bi-annual Publication of Department of Economics, Federal University of Lafia, 5(3), 90-100.*

Sunny, O.I. (2013). The impact of commercial banks credit to agriculture on Agricultural development in Nigeria: econometric analysis. *International Journal of Business, Humanities and Technology* 3(1), 85-94.

Toby, A. J., & Peterside, D. (2014). Monetary policy, bank management and real sector finance in Nigeria: Who is to blame? *Proceedings of the First Middle Conference on Global Business, Economics, Finance and Banking (ME 14 Dubai Conferences) Dubai.*

Toby, A. J., & Zaagha, A.S, (2020).Central Bank Policy and Private Sector Funding in Nigeria: A Multi-Variant Study. *Journal of Strategic and Internet Business. 4 (2), 899-923.*

Todaro, M.P. (1977). Economic Development in the Third World" 3rd Edition, Longman Publisher.

Torbila, L.L., & Zaagha, A.S. (2016). Capital Adequacy Measures and Bank Financial Performance in Nigeria: A CointegrationAnanlysis. *Journal of Finance and Economic Research. 4(1), 15 -34.*

Vossen A., (2010). Bank liquidity management. MCB University Press, *Bradford, 11; 13-19*

William, O., Zehou, S. & Hazimi, B.H., (2019). Determinants of domestic credit to the private sector in Ghana: application of vector auto regressive method. *Advances in Social Science, Education and Humanities Research, volume 309.*

Zaagha, A. S. (2020). Money Supply and Private Sector Funding in Nigeria: A Multi-Variant Study. *Asian Finance & Banking Review; 4(2), 24-41.*

Zaagha, A.S., & Murray, M. E. (2020). Deposit money bank policy and private sector funding: a multi-dimensional study from Nigeria. *Australian Finance & Banking Review; 4(1), 18-36.*

Fiscal Federalism and Revenue Accounting in Nigeria's Fourth Republic: Implications for Financial Management and Public Governance in South-South Geopolitical Zone

Uwem Etim Uwah PhD, FCA
Department of Accounting
Akwa Ibom State University
uwemuwah@aksu.edu.ng

Abstract

Fiscal federalism and revenue accounting are crucial aspects of public governance in any federal system. In Nigeria's fourth republic, these issues have been a subject of intense debate due to the challenges posed by the country's diverse socio-economic and political landscape. The study examined fiscal federalism and revenue accounting in Nigeria's fourth republic and the implications for financial management and public governance in the South-South States of Nigeria. It focuses on the system of revenue allocation, management, and accounting in Nigeria's federal system through an analysis of the revenue allocation formula, receipts and expenditures of the federal, state, and local governments, and the effectiveness of the institutional framework for revenue mobilization and distribution. The study adopted multiple correlations design of the ex post facto. Secondary data were extracted from the Central Bank of Nigeria's bulletin for the period 2001 - 2022. A finite population was used in this study, and three research questions were answered with corresponding test of three hypotheses at 0.01 level of significance. The study found out that ineffective revenue accounting and financial management systems have contributed to poor public governance in Nigeria. It was also seen that the region's dependence on federal allocations and the lack of transparency and accountability in revenue accounting have led to significant revenue losses, fiscal imbalance, and poor financial management and public governance. Therefore, it recommended the adoption of a transparent and accountable revenue allocation and management framework, strengthened institutional arrangements, and enhanced capacity building for public officials at all levels of governance.

Keywords: Fiscal federalism, Revenue accounting, Nigeria's fourth republic

Introduction

The federal system in Nigeria allocates responsibilities and revenue between the federal and state governments with the aim of promoting development and equitable distribution of resources. However, the implementation of fiscal federalism has been fraught with challenges, including inadequate revenue generation, corruption and inefficiency in revenue management, and conflicts over resource allocation between the federal and state governments (Okunrounmu, 1996).

Revenue comprises gross inflows of economic benefits or service potential received and receivable by the reporting entity, which represents an increase in net assets/equity, other than increases relating to contributions from owners. Improving revenue accounting through the adoption of technology-driven systems, strengthening institutional capacity, and promoting inter-agency cooperation and collaboration would go a long way in improving public governance and financial management in Nigeria. The IPSAS provisions on revenue accounting are applicable to Nigeria. These provisions provide guidance on the recognition, measurement, presentation, and disclosure of revenue in the public sector.

The IPSAS 9 which is on revenue from exchange transactions establishes the principles for recognizing and measuring revenue from exchange transactions. According to this standard, revenue should be recognized when it is probable that an entity receives assets or services, or has liabilities extinguished and directly gives approximately equal value (primarily in the form of cash, goods, services, or use of assets) to another entity in exchange for future economic benefits. The IPSAS 23 deals on revenue from non-exchange transactions. This Standard provides guidance on the recognition, measurement, presentation, and disclosure of revenue from non-exchange transactions. According to this standard, revenue from non-exchange transactions are those which an entity either receives value from another entity without directly giving appropriately equal value in exchange or gives value to another entity without directly receiving appropriately equal value in exchange, and

should be recognized when an inflow of resources is probable and the revenue can be reliably measured (Salami, 2011).
Ineffective revenue accounting and financial management systems have contributed overtime, to poor public governance in Nigeria. There is an urgent need for a transparent and accountable revenue allocation framework that reflects the true needs and priorities of each tier of government. Additionally, institutional arrangements must be strengthened to ensure effective mobilization and distribution of resources. One major challenge facing fiscal federalism in Nigeria is the weak institutional framework for revenue mobilization and distribution. There is a lack of transparency and accountability in revenue collection processes at all levels of governance. This has led to widespread corruption and mismanagement of public funds (Pillah, 2023).
Nigeria's fourth republic is the period, since the advent of the current civilian rule in the country (1999 to date). During the military rule era, there were policy mixes which cajoled the federal systems of administration. With democracy in place currently, federalist systems of administration give people the chance to engage in the political process in their own communities. States and Local Governments in a federalist state provide opportunities for the development of policies and programs at those levels. Decisions by the tiers of government are made closer to the citizenry, as against everything being done at the centre.
As opined by Tella (1999), focusing on Nigeria's Fourth Republic, there is an interplay between fiscal federalism and revenue accounting, and their implications for financial management and public governance in the South-South geopolitical zone. Fiscal federalism involves the distribution of responsibilities and financial resources between different levels of government, whereas revenue accounting deals with the collection, management and reporting of public funds. Given the increasing demand for effective financial management and accountable governance, Nigeria's Fourth Republic has witnessed numerous reforms aimed at improving fiscal federalism and revenue accounting. However, there are still challenges that impede effective implementation of these reforms, particularly in the South-South geopolitical zone.

To explore the challenges of fiscal federalism and revenue accounting in Nigeria's Fourth Republic, it is important to consider the unique characteristics of the South-South geopolitical zone. This region is known for its vast oil reserves, which have historically been a major source of revenue for both the federal and state governments. However, there have been concerns about the equitable distribution of these resources, with some states feeling that they are not receiving their fair share.
In addition to these distributional issues, there are also challenges related to corruption and mismanagement of public funds in the South-South zone. This has led to calls for greater transparency and accountability in revenue accounting processes at all levels of government. Overall, addressing these challenges will require a concerted effort from policymakers, civil society organizations, and other stakeholders in the region. By improving fiscal federalism and revenue accounting practices, it may be possible to promote more effective financial management and public governance in the South-South geopolitical zone.
The main objective of this study was to examine how fiscal federalism affects revenue accounting in Nigeria's fourth republic, with focus on the South-South geopolitical region. The specific objectives were to examine the extent to which revenue decentralization affects revenue collection efficiency, analyse the degree to which decentralization of expenditure responsibilities affect budget execution, and assess the magnitude and nature of fiscal transfers and the effect on corruption checks in states in the South-South geopolitical zone during Nigeria's Fourth Republic.
The study highlights the importance of effective revenue accounting in promoting transparency and accountability in public financial management, and examines the role of various institutions and stakeholders in revenue accounting, including revenue generating agencies, the Federation Account Allocation Committee (FAAC), and the Office of the Accountant-General of the Federation. It will therefore contribute to the existing literature on fiscal federalism and revenue accounting in Nigeria's Fourth Republic, and provide insights into the implications of these issues for financial management and public governance in the South-South geopolitical zone.

Review of Related Literature

Conceptual Review

Fiscal federalism and revenue accounting play crucial roles in shaping the financial management practices in public governance. In Nigeria's Fourth Republic, where fiscal federalism is a fundamental principle, the effective management of revenue and resources at different levels of government is essential for sustainable economic development and equitable distribution of public goods and services. Fiscal federalism and revenue accounting are critical issues in Nigeria's Fourth Republic, particularly in the South-South geopolitical zone. The region is rich in natural resources, including oil and gas, and generates significant revenue for the country. However, there have been concerns about the management and distribution of these resources, with accusations of corruption, mismanagement, and fiscal imbalance. This literature review examines the implications of fiscal federalism and revenue accounting for financial management and public governance in the South-South geopolitical zone.

Fiscal federalism is concerned with the allocation and distribution of fiscal responsibilities and resources between the central government and subnational governments. In Nigeria, the federal system is characterized by a significant concentration of power and resources at the federal level, with limited autonomy and fiscal capacity for the states and local governments. This has led to a situation where the central government controls most of the revenue and resources, while the subnational governments are heavily dependent on federal allocations. This has resulted in fiscal imbalance, with some states and local governments struggling to meet their financial obligations. In a study by Fayomi and Olasupo (2011) it examined the politics of fiscal federalism, resource control, and political solutions and how the issue of fiscal federalism has united the Southern people in Nigeria for once. The study emphasized the importance of resource control and the debate surrounding it. It highlighted the need to address the distribution of resources among the various tiers of government in Nigeria.

Nigeria's fiscal arrangement is guided by certain allocation principles like population, equality of states, internal revenue generation, and landmass. According to a study by Salami (2011), the federal government of Nigeria's share from the federation account has been on the decline in favour of lower tiers of government, while the lion shares of a tax item, value added tax, goes to the federal government. Howbeit, Nigeria heavily relies on oil revenue which accounts for about 80-85% of the total public revenue, where the federal government collects most of the levies, and state and local governments collect less than 7% of the revenues (Lukpata, 2013).
A well-designed policy framework of decentralization can lead to improvement in spending on social services, which can benefit the population in numerous ways. This is what effective revenue generation and fiscal federalism policies entail (Bello & Mackson, 2023). According to Tella (1999), there are two different types of federalism: dual federalism and cooperative federalism. The constitution established two distinct and independent tiers of government with their own clearly defined areas of responsibility in order to implement dual federalism. It is natural that there would be some friction and competitiveness in such a structure. On the other hand, cooperative federalism simply refers to implementing federalism through collaboration amongst the several tiers of government. It places emphasis on how the various levels of government work together to deliver efficient public services for the country. Germany and the United States of America both use this form of federalism.

Revenue accounting is another critical issue in Nigeria's fiscal federalism. The country's revenue system is based on oil and gas exports, which account for over 90% of the country's export earnings. However, there have been concerns about the transparency and accountability of revenue accounting, with accusations of corruption, mismanagement, and revenue leakage. This has led to a situation where the country's revenue is not effectively managed and distributed, resulting in significant revenue losses and fiscal imbalance (Odigwe & Aibeiyi, 2015).

Nigeria has adopted the IPSAS 9 and IPSAS 23 standards on revenue accounting in its public sector

accounting practice. These provisions provide guidance on the recognition, measurement, presentation, and disclosure of revenue in the public sector. IPSAS 9, Revenue from Exchange Transactions establishes the principles for recognizing and measuring revenue from exchange transactions. According to this standard, revenue should be recognized when it is probable that future economic benefits will flow to the entity and the revenue can be reliably measured. IPSAS 23, Revenue from Non-Exchange Transactions provides guidance on the recognition, measurement, presentation, and disclosure of revenue from non-exchange transactions. According to this standard, revenue from non-exchange transactions should be recognized when an inflow of resources is probable and the revenue can be reliably measured.

Under the IPSAS system, revenue recognition is based on the accrual basis of accounting. Revenue is recognized when it is earned, regardless of the timing of cash inflows. This means that revenues from taxes, fees, and other charges are recognized based on the tax or fee assessment, rather than on the timing of the collection of the revenues. The IPSAS provisions on revenue accounting provide a framework for consistent and transparent accounting practices in the public sector, which can enhance accountability and the efficient use of public resources.

In addition to IPSAS 9 and IPSAS 23, Nigeria has also adopted IPSAS 11 Construction Contracts and IPSAS 13 Leases for revenue accounting in the public sector. These standards provide guidance on recognizing revenue from construction contracts and leases respectively. The adoption of these international standards has helped Nigeria improve its financial reporting practices, making them more transparent and reliable. By following these provisions, Nigeria can ensure that its public sector entities are accountable for their use of public resources, which can ultimately lead to better economic growth and development for the country (Uwah & Ibanga, 2021).

Revenue decentralization

Revenue decentralization in Nigeria's Fourth Republic is done through the allocation of revenue and financial resources from the federal government to the state and local governments. The revenue allocation system in Nigeria is based on the principle of fiscal federalism, which recognizes the need for a fair and equitable distribution of resources among different tiers of government. The revenue allocation system in Nigeria is governed by the Constitution of the Federal Republic of Nigeria, which provides for the distribution of revenue among the federal, state, and local governments. The constitution stipulates that the federal government should receive 52.68% of the revenue, while the state and local governments should receive 26.72% and 20.60%, respectively (Offiong, 2012).

The revenue allocation is further divided into two categories: statutory and non-statutory allocations. Statutory allocations are based on a formula that takes into account the population, equality of states, internal revenue generation, landmass, and social development factors. Non-statutory allocations, on the other hand, are discretionary allocations made by the federal government to the states and local governments. In addition to revenue allocation, the federal government also provides grants and loans to the state and local governments for specific projects and programs. The grants and loans are usually tied to specific conditions and performance indicators to ensure accountability and effective utilization of the funds.

Revenue collection efficiency

Revenue collection efficiency in Nigeria's Fourth Republic refers to the effectiveness and efficiency with which the government collects revenue from various sources. It measures the government's ability to generate revenue in a timely manner, minimize revenue leakage, and ensure compliance with tax and revenue laws. In Nigeria, revenue collection efficiency has been a significant challenge due to factors such as corruption, weak enforcement mechanisms, and inadequate infrastructure for revenue collection. These factors have resulted in low tax compliance rates, revenue leakages, and a high level of informal economic activities that evade taxation. To improve revenue collection efficiency, the government has implemented various reforms and initiatives. These include:

Tax Policy Reforms: The government has introduced tax policy reforms to simplify tax laws, broaden the tax base, and encourage voluntary compliance. This includes the introduction of the Voluntary Assets and Income Declaration Scheme (VAIDS) to encourage tax defaulters to regularize their tax status.

Strengthening Tax Administration: Efforts have been made to strengthen tax administration through the establishment of the Federal Inland Revenue Service (FIRS) and State Internal Revenue Services (SIRS). These agencies are responsible for tax collection, enforcement, and taxpayer education.

Automation and Technology: The government has invested in the automation of tax and revenue collection processes to improve efficiency and reduce human intervention. This includes the introduction of electronic tax payment systems and taxpayer registration databases.

Capacity Building: The government has invested in training and capacity building for tax officials to enhance their skills in tax administration, enforcement, and taxpayer education.

Collaboration with International Partners: Nigeria has collaborated with international partners, such as the World Bank and the International Monetary Fund (IMF), to receive technical assistance and support in improving revenue collection systems and practices.

Decentralization of expenditure responsibilities

Decentralization of expenditure responsibilities in Nigeria's Fourth Republic is primarily done through the allocation of funds and responsibilities from the federal government to the state and local governments. The aim is to empower subnational governments to effectively deliver public services and meet the needs of their respective communities. The decentralization of expenditure responsibilities is guided by the provisions of the Constitution of the Federal Republic of Nigeria, which outlines the functions and responsibilities of each tier of government. The constitution assigns certain responsibilities exclusively to the federal government, while others are shared or devolved to the state and local governments. The process of decentralization of expenditure responsibilities involves the following:

Allocation of Funds: The federal government allocates funds to the state and local governments through the revenue allocation system. As mentioned earlier, the constitution stipulates the percentage of revenue that should be allocated to each tier of government. These funds are meant to support the delivery of public services and the execution of development projects at the subnational level.

Transfer of Functions: The federal government transfers certain functions to the state and local governments to ensure effective service delivery. These functions include education, healthcare, agriculture, transportation, and infrastructure development, among others. The transfer of functions is typically accompanied by the necessary resources and capacity-building support to enable subnational governments to effectively carry out these responsibilities.

Intergovernmental Relations: The federal, state, and local governments engage in regular consultations and collaboration to coordinate policies, programs, and projects. This is done through intergovernmental forums such as the National Economic Council (NEC) and the Joint Tax Board (JTB). These platforms facilitate dialogue, coordination, and decision-making on matters related to expenditure responsibilities and resource allocation.

Fiscal Responsibility: Decentralization of expenditure responsibilities also requires subnational governments to exercise fiscal responsibility in managing their finances. This includes budgeting, financial planning, and accountability mechanisms to ensure the efficient and effective use of allocated funds.

Fiscal autonomy in Nigeria's Fourth Republic

Fiscal autonomy refers to the ability of subnational governments to generate revenue, manage their finances, and make decisions on expenditure priorities without undue interference from the federal government. Fiscal autonomy is key to ensuring effective service delivery and promoting socio-economic development at the subnational level. The following are some of the ways in which fiscal autonomy is achieved in Nigeria's Fourth Republic:

Revenue Generation: Subnational governments are empowered to generate revenue through various sources, including taxes, fees, and levies. The Constitution of the Federal Republic of Nigeria outlines the revenue sources available to each tier of government. The federal government also allocates revenue to the state and local governments through the revenue allocation system.

Budgeting and Financial Planning: Subnational governments are required to prepare and implement their budgets, which outline their expenditure priorities and revenue projections. The budgeting process is guided by the Fiscal Responsibility Act, which mandates subnational governments to ensure transparency, accountability, and sustainability in their financial management.

Debt Management*:* Subnational governments are allowed to borrow funds to finance their development projects, subject to certain conditions and limits. The Debt Management Office (DMO) provides guidelines and regulations for subnational governments to ensure responsible borrowing and debt management practices.

Intergovernmental Relations: Fiscal autonomy is also achieved through intergovernmental collaboration and coordination. The federal, state, and local governments engage in regular consultations to align policies, programs, and projects. The National Economic Council (NEC) and the Joint Tax Board (JTB) serve as platforms for intergovernmental dialogue and decision-making.

Judicial Autonomy: The financial autonomy of the judiciary is also essential to ensure the independence and impartiality of the judiciary. The judiciary is empowered to manage its finances, including the allocation of funds for its operations and maintenance.

Implications for financial management and public governance

The implications of fiscal federalism and revenue accounting for financial management and public governance in the South-South geopolitical zone are significant. The region is a major contributor to the country's revenue, but it has not benefited significantly from its resource endowment. The region has also been affected by environmental degradation, social unrest, and underdevelopment, despite its significant contributions to the country's revenue. This has led to calls for greater fiscal autonomy and resource control for the region, as well as greater transparency and accountability in revenue accounting. The proper management of fiscal resources contributes significantly to ensure social and economic development in any country. In Nigeria, achieving good governance in public finance is a crucial issue that still needs attention. With a federal system of governance, state and local government authorities receive a significant amount of resources from the central government. The resources are meant to address various developmental issues in their respective regions. Moreover, Nigeria is endowed with a plethora of natural resources, which contributes significantly to the national revenue. However, mismatched accounting systems and inadequate fiscal policies limit optimal resource allocation and hinder accountability in public finance management. Lack of transparency in the country's fiscal systems has contributed to poor accountability and the mismanagement of public funds. Adequate reforms in the fiscal systems, improved accountability measures, and the establishment of an effective fiscal policy framework will contribute to optimal resource allocation and good governance in public finance management (Ndonkgo, 1981).

Need for clarity and transparency

There is a lack of clarity and transparency in revenue generation, allocation, and accounting processes. The complex and opaque nature of revenue collection and sharing mechanisms between the federal and subnational governments has led to a lack of accountability and mismanagement of public funds. This has resulted in revenue leakages, misappropriation, and inefficiencies in resource allocation, hindering effective financial management in public governance.

Vertical fiscal imbalance and resource disparities

The current fiscal system and revenue accounting practices in Nigeria's Fourth Republic have contributed to a vertical fiscal imbalance. The over-reliance on oil revenue and the unequal distribution of resources have created disparities in fiscal capacities among different levels of government. This has led to a situation where subnational governments are heavily dependent on transfers from the national government, limiting their fiscal autonomy and hindering effective financial management at the subnational level.

Challenges in financial management and implications of fiscal federalism

The absence of a robust revenue accounting framework and weak internal controls have further exacerbated the challenges in financial management. Inadequate systems for revenue tracking, monitoring, and reporting have created loopholes for revenue leakage, corruption, and financial mismanagement. This has undermined the credibility and integrity of financial management practices in public governance. More so, the implications of fiscal federalism and revenue accounting on public service delivery and socio-economic development need to be thoroughly examined. The effectiveness and efficiency of financial management in public governance are directly linked to the provision of quality public services, infrastructure development, and poverty reduction. Therefore, it is crucial to understand the implications of the current fiscal federalism and revenue accounting practices on the delivery of public goods and services and their impact on the overall socio-economic development of Nigeria's Fourth Republic.

As indicated by Uwah and Ibanga (2021), addressing these issues and challenges is essential for improving financial management in public governance in Nigeria's Fourth Republic. A comprehensive understanding of the implications of fiscal federalism and revenue accounting is necessary to develop effective strategies and policies that promote transparency, accountability, and efficiency in financial management, and ensure the equitable distribution of resources for sustainable development. The implications of these issues have been felt particularly strongly in the South-South geopolitical zone of the country. This region is rich in natural resources such as oil and gas, which generate significant revenue for the country. However, the local communities in this region often feel that they are not benefiting from the resources extracted from their land, which has led to conflict and unrest. Furthermore, the lack of transparency in revenue accounting has made it difficult to track how the funds generated from these resources are being spent. This has led to a lack of accountability and trust in the government, which has further fuelled tensions.

In light of these challenges, there is a need for a comprehensive and transparent revenue management system that takes into account the needs and concerns of all stakeholders. This will require cooperation and collaboration between the federal government, state governments, and local communities, and a commitment to transparency and accountability in financial management and public governance.

Theoretical framework

Some different theories provide a sound foundation to this study. These include Oates' decentralization theorem, revenue assignment models, and fiscal rules and accountability. Oates' decentralization theorem was developed by Wallace Oates. The theorem argues that the optimal level of decentralization depends on the trade-off between the benefits of local decision-making and the costs of fiscal externalities. It suggests that certain functions and responsibilities should be decentralized to subnational governments to allow for better responsiveness and efficiency, while others should remain centralized to address fiscal externalities and achieve economies of scale. Revenue assignment models focus on the allocation of revenue sources between the different tiers of government.

They analyze the efficiency and equity implications of different revenue assignment arrangements, such as the assignment of taxes, grants, and user fees. Theoretical frameworks like the Musgrave Model, Diamond-Mirrlees Model, and Bird-Rubin Model provide insights into the optimal revenue assignment strategies to ensure fiscal autonomy and accountability. Fiscal rules and accountability theory emphasizes the importance of fiscal rules and accountability mechanisms in ensuring responsible fiscal behaviour. It highlights the need for subnational governments to adhere to fiscal rules, such as debt limits, balanced budget requirements, and transparency in financial reporting. Fiscal rules and accountability mechanisms promote fiscal discipline, transparency, and sustainability in revenue accounting and expenditure management.

This work adopts the three theories as they fit into the nature and scope of the empirical work.

Empirical review

Several studies have examined the implications of fiscal federalism and revenue accounting for financial management and public governance in Nigeria. For example, Kayode (2014) examined the impact of fiscal federalism on public governance in Nigeria. He found that the State's dependence on federal allocations had led to a situation where the subnational governments were unable to meet

their financial obligations, resulting in poor service delivery and public governance. They recommended greater fiscal autonomy and resource control for the geopolitical regions, as well as greater transparency and accountability in revenue accounting.

Another study by Eme and Ugwu (2016) examined the politics of fiscal federalism on revenue sharing and resource control in Nigeria. They found that the region's dependence on federal allocations had led to a situation where the subnational governments were unable to effectively manage their finances, resulting in poor financial management and fiscal imbalance. They recommended greater fiscal autonomy and resource control for the region, as well as greater transparency and accountability in revenue accounting.

Obiechinna, (2010) investigated the effect of revenue generation on socio-economic and infrastructural development of Nigeria. The study explored trend in government revenue from 1970 – 2008, and found that revenue from tax and non-tax items has been the driver of most infrastructural developments in Nigeria. The therefore recommended institutional development of government agencies and parastatals vested with the responsibility of collecting and administering revenues on behalf of the government.

Olabanji *et al* (2020) studied fiscal federalism and economic development in Nigeria, using autoregressive distributed lag approach. The data for the study were sourced from various issues of Central Bank of Nigeria Statistical Bulletin and International Country Risk Guide. It was found that revenue decentralization with a coefficient of −2.15 significantly retarded economic development at 5%, while expenditure decentralization with a coefficient of 2.935 significantly increased economic development at 5%. The overall decentralization indicator, captured as simultaneity measure with a coefficient of 4.264 significantly increased economic development at 1%. The study concluded that from the empirical evidence, fiscal federalism will encourage economic development in Nigeria.

Sevilla (2005) in an OECD project journal examined accountability and control of public spending in a decentralised and delegated environment. She noted that budgetary restraint, which is practised by the majority of OECD countries, is intimately related to the crucial issue of fiscal discipline across governmental levels. At the subnational level, achieving budget balance or surplus necessitates a significant effort in coordination or adherence to appropriate fiscal regulations. Although a very important one, budget discipline in terms of controlling budget deficits is simply one component of governmental spending. Assuming accountability for adhering to fiscal regulations and maintaining budgetary discipline entails taking ownership of any unmet financial goals.

Methodology

Ex-post facto research design was adopted in the study as it assumes cross sectional heterogeneity and time heterogeneity among the variables used in the study. This enhanced the researcher to examine fiscal federalism and revenue accounting in Nigeria's fourth republic. The nature of this study necessitated the use of secondary data which was sourced from the Central Bank of Nigeria's (CBN) Bulletin and the National Bureau of Statistics (NBS) database. The population of the study is finite, but the focus of the study was the fourth republic of the Nigerian State for a period of twenty-two years (2001-2022).

The balanced panel data regression technique was used in this study since there are no missing data in the period of the study, and the SPSS V.20 was used in the analysis of the data, using the correlation and regression techniques. Three hypotheses were tested at 0.05 level of significance.

Variable measurement

The following variables used in this study were measured as follows:

Revenue decentralization (REDEC): This indicator measures the proportion of total revenue generated by a specific level of government, the federal government and the states (regional government). It provides an understanding of the distribution of revenue sources among different levels of government.

Revenue collection efficiency (REVCOL): This variable is measured using Tax-to-GDP ratio. This indicator compares the total tax revenue collected by a government to the country's Gross Domestic Product (GDP). It provides a measure of the overall efficiency of tax collection, indicating the ability of the government to mobilize revenue from the economy.

Decentralization of expenditure responsibilities (DECEX): This variable is measured by expenditure autonomy. The metric assesses the degree of independence that subnational governments have in determining their own expenditure priorities. It can be measured by analysing the share of expenditure that subnational governments have control over, such as their ability to allocate funds within their budget.

Budget execution (BUDGT): This variable is measured by budget expenditure variance: This metric calculates the difference between the budgeted expenditure and the actual expenditure incurred. It helps identify any deviations or discrepancies between the planned and actual expenditure, indicating the effectiveness of budget execution by States in the South-South geopolitical zone of Nigeria.

Fiscal autonomy (FISCAT): Own-source revenue ratio or internally generated revenue ratio is used as a measure. This ratio measures the proportion of subnational government revenue that is generated locally, without relying on transfers from the central government. It provides an understanding of the degree of fiscal autonomy of subnational governments.

Corruption perception of public financial management (CPFM): The Corruption Perceptions Index (CPI) is an indicator that measures the perceived level of corruption in countries around the world. The normalized data is aggregated to calculate the CPI scores for each country. The scores range from 0 to 100, with 0 being highly corrupt and 100 being very clean. The scores are based on the overall perception of corruption in a country, considering factors such as bribery, embezzlement, nepotism, and the effectiveness of anti-corruption measures.

Method of analysis

The Structural Equation Modelling (SEM) was used in the analysis of the data collected and subsequent test of hypotheses used in the study. SEM is a second generation regression analytical method which is an alternative to Ordinary Least Squares (OLS) regression. Partial Least Squares (PLS).

Model specification

The Partial Least Squares (PLS-SEM) was used in this study to enhance measure of the major variables - fiscal federalism and revenue accounting, in the fourth republic of Nigeria. This study adopted the general equation for regression, given as Y = f(X), which means Y, depends on X. Here, the dependent variable, revenue accounting, is denoted by Y, and the independent variable, fiscal federalism, is denoted by X. The equation can be written as:

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \mu$$

Where:

β_0 = Intercept

$\beta_1 - \beta_3$ = Parameter of estimate

x_1, x_2, x_3 = Coefficient of variables

μ = the error term.

Therefore,

REVA = f(FISFE)…………………………………………………………(1)

REVA = $\beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \mu$ ………………………………..(2)

REVA = $\beta_0 + \beta_1 REDEC + \beta_2 DECEX + \beta_3 FISCAT + \mu$ ……………..(3)

REVCOL = $\beta_0 + \beta_1 REDEC + \beta_2 DECEX + \beta_3 FISCAT + \mu$ ……………..(4)

BUDGT = $\beta_0 + \beta_1 REDEC + \beta_2 DECEX + \beta_3 FISCAT + \mu$ ……………...(5)

CPFM = $\beta_0 + \beta_1 REDEC + \beta_2 DECEX + \beta_3 FISCAT + \mu$ ……………...(6)

Where:

REVA = Revenue accounting
FISFE = Fiscal federalism
REVCOL = Revenue collection efficiency
BUDGT = Budget execution
CPFM = Corruption perception
REDEC = Revenue decentralization
DECEX = Decentralization of expenditure responsibilities
FISCAT = Fiscal autonomy

Table 1: Data and Variables Description

Variable	Type	Measurement	Sources
Revenue accounting (REVA)	Major Dependent	By REVCOL, BUDGT, CPFM	Lukpata, (2013)
Fiscal federalism (FISFE)	Major Independent	By REDEC, DE-	Lukpata, (2013)
Revenue decentralization (REDEC)	Independent	Ratio of S/South States IGR to the Federation Account	Obiechinna (2010)
Revenue collection efficiency (REVCOL)	Dependent	Tax to GDP ratio	Obiechinna (2010)
Decentralization of expenditure responsibilities (DECEX)	Independent	Funds transferred from Federation Account to States	Sevilla (2005)
Budget execution (BUDGT)	Dependent	Figures from extra-budgetary expenditure of S/South	Sevilla (2005)
Fiscal autonomy (FISCAT)	Independent	IGR ÷ Federation Account figure × 100	Obiechinna (2010)
Corruption perception of public financial management (CPFM)	Dependent	Corruption Perceptions Index (CPI) developed by Transparency International.	Obiechinna (2010)

Test of hypotheses

The relevant research hypotheses for this study, tested at 0.01 level of significance were as follows:

Ho$_1$: Revenue decentralization does not significantly affect revenue collection efficiency in states in the South-South geopolitical zone during Nigeria's Fourth Republic.

Hypothesis one measures the relationship between revenue decentralization (REDEC) and revenue collection efficiency (REVCOL). From table 2, REDEC shows a significant influence on REVCOL (β = 0.493, $p < 0.01$). This shows that revenue collection efficiency changes in direct proportion to revenue decentralization with a coefficient of 0.493, which signals a positive relationship between REDEC and REVCOL. This result shows that the hypothesis that revenue decentralization does not significantly affect revenue collection efficiency in states in the South-South geopolitical zone during Nigeria's fourth Republic is rejected.

Ho$_2$: Decentralization of expenditure responsibilities (DECEX) does not significantly affect budget execution (BUDGT) in states in the South-South geopolitical zone during Nigeria's fourth Republic.

Hypothesis two defines the relationship between DECEX and BUDGT. Table 2 indicates that decentralization of expenditure responsibilities has a positive non-significant relationship with budget execution (β = 0.043, $p > 0.01$). This result reflects a non-significant relationship between DECEX and BUDGT, therefore the hypothesis that **d**ecentralization of expenditure responsibilities does not significantly affect budget execution in states in the South-South geopolitical zone during Nigeria's fourth Republic is accepted.

Ho$_3$: Fiscal autonomy (FISCAT) does not have any significant effect on the corruption perception of public financial management (CPFM) in Nigeria's fourth Republic.

The relationship between FISCAT and CPFM was hypothesized here. From table 2, the result shows that fiscal autonomy has a direct significant positive relationship on corruption perception (β = 0.272, $p < 0.01$). This means corruption perception changes in direct proportion to fiscal autonomy. Hence, the hypothesis that fiscal autonomy does not have any significant effect on the corruption perception of public financial management in Nigeria's fourth Republic is rejected.

Table 2: Path Coefficients with significance values

Paths	Hypotheses	Coefficient	Std Deviation	T-Stats	P-values	Sig.
REDEC » REVCOL	1	0.493	0.090	5.461	0.000*	Yes
DECEX » BUDGT	2	0.043	0.082	0.525	0.600	No
FISCAT » CPFM	3	0.272	0.098	2.772	0.006*	Yes

*p < 0.01

Source: Researcher's Smart PLS 4 Results (2023)

Discussion of results

Effect of revenue decentralization on revenue collection efficiency

The test of hypothesis one (H01) has shown that revenue collection efficiency by States in the South -South geopolitical zone significantly depends on revenue decentralization by the federal govern-

ment of Nigeria. This finding supports the work of Obiechinna (2010), who found out that revenue is the driver of most infrastructural developments in Nigeria. To have this result, there must be revenue collection efficiency, which is supported by revenue decentralization policy of the federal government of Nigeria.

Decentralization of expenditure responsibilities and budget execution

The result of the testing of hypothesis two (H01) shows that there is a positive, but not significant relationship between expenditure decentralization responsibilities and budget execution. Therefore, the study found that decentralization policy of expenditure responsibilities by federating States may not lead to efficient budget execution by the national and subnational governments. This finding is line with the study carried out by Sevilla (2005) who opined that the budget formulation process would appear to be the most appropriate instrument for ensuring budget discipline in a decentralised environment, though it is necessary to have an institutional framework of negotiation between levels of government before it can be very significant.

Fiscal autonomy and corruption perception of public financial management

For the third objective in this study to be achieved, hypothesis three (H01) was tested and the result shows that fiscal autonomy significantly affected corruption perception of public financial management. The finding shows that there is a positive relationship between fiscal autonomy and corruption perception of public financial management. The outcome of this study is in line with the research done by Obiechinna (2010) who argued that bribery and corrupt practices among those involved in the collection and disbursement of government revenue, as well those in the execution of infrastructural projects has endangered the success of most government projects.

Conclusion and Recommendations

In conclusion, fiscal federalism and revenue accounting are critical issues in Nigeria's Fourth Republic, particularly in the South-South geopolitical zone. The region's dependence on federal allocations and the lack of transparency and accountability in revenue accounting have led to significant revenue losses, fiscal imbalance, and poor financial management in public governance. It is therefore recommended that there is need for greater fiscal autonomy and resource control for the region, as well as greater transparency and accountability in revenue accounting, to ensure effective financial management and public governance in the South-South geopolitical zone. More so, the adoption of a transparent and accountable revenue allocation and management framework, strengthened institutional arrangements, and enhanced capacity building for public officials at all levels of governance is sought for Nigeria and the region.

References

Barro, R. J. (1990). Government spending in a simple model of endogenous growth. Journal of Political Economy, 98(S5): 108–125. Available at. https://doi.org/10.1086/261726

Bello, M. F. & Mackson, A. M. (2023). Revenue generation, fiscal federalism and the national question in Nigeria. KIU Journal of Humanities, 7(4): 33-46. Accessed at https://ssrn.com/abstract.

Eme, O. I. & Ugwu, C. C. (2016). Politics of fiscal federalism: Revenue sharing, resource control and sharing formula in Nigeria. University of Nigeria Journal of Political Economy, 9(2): 190-216.

Fayomi, I. & Olasupo, F. A., Fiscal Federalism Debate in Nigeria: 1999-2009 (2011). OIDA International Journal of Sustainable Development, 2(11): 35-42. Available at SSRN: https://ssrn.com/abstract=1981377.

Kayode, O. (2014). Fiscal Federalism and Development in Nigeria: An overview of core issues. Available: http://Saharareporte. Com/article/fiscal-federalismand-development-nigeria-core-issueskayode-

Lukpata, V. I. (2013). Revenue Allocation Formulae in Nigeria: A Continuous Search. International Journal of Public Administration and Management Research, 2(1): 32-38.

Ndonkgo, W. A. (1981). Revenue Allocation and the Stability of Nigerian Federation. University of Calabar Press.

Obiechinna, M. E. (2010). Analysis of revenue generation as a tool for socio-economic and infrastructural development in Nigeria. *Bullion Publications of the Central Bank of Nigeria 34*(4). Available at https://dc.cbn.gov/ng/bullion/vol34/iss4/5

Odigwe, D. A. & Aibeiyi, S. (2015). Fiscal Federalism and Development in Nigeria. Public Policy and Administration Research, 5(7): 36-44.

Offiong, O.J. (2012). Nigeria fiscal federalism and revenue allocation principles: Examining the contentious issues. National institute for policy and strategic studies, Kuru Plateau, Nigeria. 62 – 98.

Okunrounmu, T.O. (1996). Fiscal Federalism: Revenue Allocation System in the Federal Republic of Nigeria. CBN/World Bank Collaborative Study. Proceedings of the Workshop on Nigeria Prospects for Development A.K.A Vision 2020. Abuja, April 15-17, 1998.

Olabanji O. E., Oluwatoyin, A. M., Abiola, A., Babajide, R. O. & Ese, U. E. O A. (2020). Fiscal federalism and economic development in Nigeria: An autoregressive distributed lag approach. Politics & International Relations; Published online: https://doi.org/10.1080/23311886.2020.1789370.

Pillah, T. P. (2023). Fiscal federalism in Nigeria: Empirical review. International Journal of Public Administration and Management Research, 8(5): 136-145. Retrieved from https://journals.rcmss.com/index.php/ijpamr/article/view/795.

Salami, A. (2011). Taxation, revenue allocation and fiscal federalism in Nigeria: Issues, challenges and policy options. Economic Annals, 56(189): 27-50.

Sevilla, J. (2005). Accountability and Control of Public Spending in a decentralised and delegated Environment. OECD Journal on Budgeting, 5(2): 8-21.

Tella, S. A. (1999). Promoting States' Economic Independence through Financial Market Cooperation. In: Fiscal Federalism and Nigeria's Economic Development. Selected Papers Presented at the 1999 Annual Conference of the Nigeria Economic Society.

Uwah, U. E. & Ibanga, S. E. (2021). Public financial management reforms and economic development in Nigeria's fourth republic. *International Journal of Scientific Research in Social Sciences and Management Studies, 5*(1): 44-54

Microfinance Credit and the Performance of Small and Medium Businesses in Nigeria

Grace U. Nwansi, PhD
Department of Finance and Banking
Federal Polytechnic Nekede, Owerri, Imo State
gunwasi96@gmail.com

Samuel Dibiah, PhD
Department of Banking and Finance
Captain Elechi Amadi Polytechnic Port Harcourt
samueldibiah838@gmail.com

Abstract
This study examines the effects of microfinance bank credit and performance of small and medium scale businesses in Nigeria. The study particularly looked at credits to agriculture, service industry and manufacturing firms in Nigeria. Secondary data was employed and the study adopted ex-post facto research design. Ordinary least square regression methodology was adopted for analysis. The study reveals that there is a positive and significant effect of agricultural credits and performance in Nigeria. Based on the findings, it was recommended that microfinance banks management should sustain the credit to agriculture because it enhances the performance of the agricultural sector.
Keywords: Microfinance, Credit to agricultural sector, Credit to service sector, Credit to manufacturing sector, Small business performance.

Introduction

In order to promote and achieve effective performance of Small and Medium Business (SMB) sector, the contribution of the Microfinance banks in terms of granting credit facilities and other assistance of relevance becomes sacrosanct. Although, optimizing the performance of the economy could be predicated on the contribution of the small and medium scale enterprises. Conversely, globally SMBs carry diverse connotations. SMBs perform the role of economic development and provision of jobs in a country. Small and medium scale business (SMBs) make a significant impact by improving a country's economic performance (Anyanwu, 2001; Afolabi, 2012; Uremadu et al., 2018); SMBs result in creating more direct jobs compared to big businesses; and they are training grounds for those who want to develop technical and entrepreneurial skills (Kira, 2017; Uremadu et al., 2018).

According to Quaye et al. (2014), Microfinance banks have succeeded in the provision of finance and gradually helping SMBs to acquire financial assistance. Competence, effective, and efficient Microfinance banks serve the financial needs of informal sectors. Many microfinance institutions acknowledge that the market is large enough to accommodate the traditional and universal banks. SMBs are determined to dominate and have their market share before the open market competition is in full effect in a country (Uremaduet al., 2018; Theriou, 2016; Havlicek et al., 2013; Breckova and Havlicek, 2013; Anureev et al., 2017).

There is a notion that microfinance banks are bad risk and that their services may not be sustainable and aid the survival of small and medium scale enterprises and as a result therefore have slight concern for funding the sector. This is in addition to issues of high contract costs and short length of payback period when funding is taken into consideration. Since a robust economic growth cannot be achieved without putting in place well focused programmes to reduce poverty through empowering the people by increasing their access to formal financial services. The Central Bank of Nigeria in 2005 as part of its banking reform agenda started licensing Microfinance Institutions (MFIs) aimed at providing financial services to small and medium scale enterprises that are not served by the conventional financial institutions (Ozioko, 2010). Emphasis, therefore, shifted from large-scale industries to SMBs, which have the potentials for developing domestic linkages sufficient for rapid and sustainable industrial development.

According to Yarron (2018), Nigeria is blessed with remarkable entrepreneurs who need support at Micro, Small and Medium Scale Business levels as well as big businesses. A common characteristic of these businesses is their need for good financing. An obvious and probable development of Small and Medium Scale Business (SMBs) in Nigeria is attached to the backing of banks through issuing of bank credits to SMBs. Annually, loans to SMBs appreciate and largely greater than the progression in the total of bank credit. A known way of raising capital for SMBs is through the process of borrowing from financial institutions.

Credit is a financial facility that allows a person or business entity to borrow money, to buy products and pay it back within the prescribed period. The problem faced by Small and Medium Scale business (SMBs) in Nigeria can fundamentally be regarded as internal and external (Hamid and Susilo, 2016; Susilo, 2016). According to Hamid and Susilo (2016) and Susilo (2016), the problems that could be regarded as internal factors are: lack of capital, limited human resources and weak business networks and market penetration capability. In another vein, the external factors include; the business environment is not yet conducive, limited facilities and business infrastructure, regional autonomy implication, the nature of the product life time which is short, lack of market access and the implications of free trade. Requiring capital, SMBs want the backing of financial institutions most especially banks.

It is crystal clear from literature that the access to finance of most small and medium scale business is still low. In essence, there are several issues generating this problem one of which is the profile of the prospective debtors of small and medium scale enterprises. It is obvious that most of the SMBs do not have what it takes to apply for financial assistance in terms of loans and advances from the banks. In this regard, feasibility study of the small and medium scale enterprises is considered by the microfinance banks and often times the SMBs are found unable to meet up with the basic requirements for accessing loans or other bank facilities (Hamid and Susilo, 2016).

In the postulation of Susilo (2016) and Hamid and Susilo (2016), funding small and medium scale enterprises is highly crucial in order to ensure the promotion of workable economic progression and plummeting poverty in the country. There is need for government intervention which perhaps is a veritable tool for optimizing economic performance in Nigeria. The intervention could be in form of policy transformation through reduction in interest rate charged by microfinance banks, interest-free loans and other industrialization-oriented policies. This policy change would essentially ensure the stimulation of economy and promote performance of small and medium scale enterprises in Nigeria.

Statement of the problem

The development of every country perhaps hinges on the performance of small and medium scale business (SMBs). In the light of this, it is appalling that Nigeria has experienced poverty of mindset when it comes to developing and improving the performance of small and medium scale business. The conduit by which the optimization of their performance can be ensured could have been through the granting of credit to them by the microfinance banks. However, most microfinance banks have not been forth-coming thus impairing the performance of these SMBs. (Tijani, 2019).

The microfinance banks though projects the willingness to help these SMBs, however, the stringent conditions attached to some of these credit facilities make it inaccessible. Therefore, yearly, most of the small and medium scale businesses do not seem to make any substantial progress over time. They have been stagnated in terms of performance. Most of them are even backward and thus considering quitting the business as the owners of such businesses could not meet up with their daily basic obligations. A lot of researchers have been conducted on the subject areas but none have measure SME performance with performance activity, performance quantity and performance transport and service sector and move over none is up to 2020 so as to capture current realities. This therefore constitutes the central problem of the study.

Objectives of the Study

The broad objective of the study was to examine the Effect of microfinance banks' credit on the performance of small and medium business in Nigeria. The specific objectives are to:

Examine the effect of microfinance banks' credit to agriculture on the performance of agricultural sector in Nigeria.
Ascertain the effect of microfinance banks credit to manufacturing on the performance of manufacturing sector in Nigeria
Evaluate the effect of microfinance banks credit to service industries on the performance of transport and service sectors in Nigeria.
Research Hypotheses
In order to achieve the stipulated objectives of the study, the following hypotheses were formulated:
Ho1: There is no significant relationship between microfinance bank's credits to agriculture on the performance of agricultural sector in Nigeria
Ho2: there is no significant relationship between microfinance bank credits to manufacturing on the performance of manufacturing sector in Nigeria
Ho3: There is no significance relationship between microfinance banks credit to service industries on the performance of transport and service sectors in Nigeria
Literature Review
Microfinance
Microfinance is a poverty alleviation tool which has gained worldwide recognition since the 1990s and proven to have positive impact on poverty levels and entrepreneurship development in developing countries (Hossain et al, 2018). Microfinance is the provision of financial services to the poor, aiming at empowering low income population by providing them with access to credit and other financial services.

Through MFIs, the poor can obtain collateral-free loans at relatively low interest rates and use the money for creating microbusinesses (small businesses owned by poor people), funding children's education and improving households, among others. Aside from microcredit, MFIs have also developed numerous financial services such as micro-insurance and micro-mortgage designed to accommodate the poor's financial needs. Most of these institutions have also required their clients to open up savings accounts which could be used for emergency and investment purposes (Carr & Tong, 2016).
The Canadian International Development Agency (CIDA) defined microfinance as the provision of a broad range of financial services to poor, low income households and micro businesses usually lacking access to formal financial institutions (CIDA, 2002).It is the provision of financial services and the management of small amounts of money through a range of products that are targeted at the poor people. This product includes loans, savings, insurance et cetera (United Nation, 2015). According to Almeyda and Branch (2019), micro finance is the provision of credit, savings and other financial services to lower-income groups.
In addition, Otero (2019) defined microfinance as the provision of financial services to low-income poor and very poor self-employed people. Microfinance came into being from the appreciation that micro-entrepreneurs and some poorer clients can be 'bankable', that is, they can repay both the principal and interest on time and also make savings provided financial services are tailored to suit their needs.
Microfinance Bank
Microfinance Bank (MFB) is any company licensed by the Central Bank of Nigeria CBN to carry on the business of providing financial services such as savings and deposits, loans, domestic funds transfer and non-financial services to microfinance clients (Otero, 2019).
Microfinance bank refers to the financial services provided to low-income individuals or groups who are typically excluded from traditional banking. Most microfinance institutions focus on offering credit in the form of small working capital loans, sometimes called microloans or microcredit. However, many also provide insurance and money transfers, and regulated microfinance banks provide savings accounts. Microfinance bank aims to improve financial services access for marginalized groups, especially women and the rural poor, to promote self-sufficiency. Almeyda and Branch (2019).

Microfinance Bank and Financial Inclusion
Low-income people are neglected by their financial systems because they are considered uneconomical to serve or too difficult to reach. According to the World Bank's Global Findex, 1.7 billion adults globally are financially excluded, living without formal credit or savings. Microfinance seeks to address the needs of the unbanked by fostering economic justice and financial inclusion for all. Access to essential financial services can empower individuals economically and socially by creating self-reliance and economic sustainability in impoverished communities where salaried jobs are scarce. The benefits of microfinance include:
Small loans enable entrepreneurs to start or expand micro, small and medium enterprises.
Savings help families build assets to finance school fees, improve homes (e.g., install power or running water) and achieve goals.
Insurance products can offset the cost of medical care.
Money transfers and remittances allow families to easily send and receive money across borders.
Hundreds of millions of low-income people have benefited from microfinance bank since its inception, with about 140 million borrowers served by the industry worldwide annually (Tijani, 2019).
Microfinance bank credit
According to Micro-credit Summit (2002), Microcredit is the extension of small loans to entrepreneurs too poor to qualify for commercial bank credit. It is the provision of cash and in kind loans in smaller amounts to micro, small entrepreneurs meant to improve their business operations. Sinha and Matin (2018) described microcredit as small loans, whereas microfinance is appropriate where NGOs and Microfinance Institutions (MFIs) supplement the loans with other financial services such as savings, insurance, etcetera. Thus microcredit is a component of microfinance in that it involves providing credit to the poor. Credit however provides the basis for increased production efficiency through a specialization function (Kimemia, 2014).
Microfinance institutions are fast becoming a household name globally due to their acceptance as a means of reaching those that were not served by the conventional big banks to the extent that local and international organizations are exploring the modalities of deriving the best in the application of microfinance concept to almost every area of economic needs of individuals and organizations over the years (Oluyombo, 2017). The numbers of microfinance bank credit in Nigeria grew from 401 in 1992 to 757 in 2010 while their fixed assets moved from N967.2 million to N55.05 billion.
The non oil gross domestic period also was on the increase. During the same period, 42.84 percent of Nigerians lived below the poverty level in 1992 and it increased to 65.59 in 1996 and 70.2 percent in 2002. However, the Millennium Development Goals (MDGs) 2005 report that 54.4 percent of Nigeria's estimated 120 million people live on less than $1.00 per day despite the existence of 757 microfinance banks in the country. The growth opportunity inherent in microfinance services and likewise the challenges for full development of microfinance institutions with the increasing rate of poverty in the nation has raised some essential questions as to the economic importance of this type of financial service providers since they are meant to be catalyst for economic development.
Performance
Performance according to Obiwuru, Okwu, Akpa and Nwankwere (2016) refers to ability of an organization to achieve such objectives as high profit, quality product; large market share, good financial results and survival at pre-determined time using relevant strategies for action. Consequently, Wang, (2015) viewed performance as product accomplishments, results and achievements in an organization. Williams and Andersons, (1991) also defined performance as employee's achievement level in his/her responsibilities and duties assigned in the workplace. Understanding determinant factors of SMBs performance is considered an important area of focus in enterprises (Rosli, 2017). This is because SMBs contribute to employment growth at a higher rate than larger firms. Anastasia (2018) posited that organizational performance can be measured by effectiveness, efficiency, satisfaction and innovation of products. Apolot (2012) in his study measured organizational assessments of performance in sales growth, customer satisfaction and profitability in their businesses. This study therefore adapts the definition of both Apolot (2012) and Anastasia (2018).
Small and Medium Scale Business

Small scale businesses, Small scale industries and small scale entrepreneurship are often used interchangeably to mean a Small and Medium Scale Enterprise. In Nigeria and worldwide, there seems to be no specific definition of small business. Different authors, scholars, and schools have different ideas as to the differences in capital outlay, number of employees, sales turnover, fixed capital investment, available plant and machinery, market share and the level of development, these features equally vary from one country to the other.

In Nigeria, for example, the Third National Development plan defined a small scale business as a manufacturing establishment employing less than ten people, or whose investment in machinery and equipment does not exceed six hundred thousand naira (Kayode, 2010). Similarly, Central Bank of Nigeria (CBN) in its credit guidelines, classified small scale business as the businesses with an annual income/asset of less half a million naira (N500,000) (Kayode, 2010). Also, the Federal Government Small Scale Industry Development Plan of 1980 defined a small scale business in Nigeria as any manufacturing process or service industry with a capital not exceeding N150,000 in manufacturing and equipment alone.

In the same vein, the Small Scale Industries Association of Nigeria (1973) also defined small scale business as those having investment (i.e. capital, land building and equipment of up to N 60, 000 (pre-SAP Value) and employing not more than fifty persons. While, the Federal Ministry of Industries defined it as those enterprises that cost no more than N500, 000 (pre-SAP Value) including working capital to set up. In addition, the Centre for Management Development (CMD) definition of small industry in the policy proposal submitted to the federal government in 1982 defined small scale industry as, "a manufacturing processing, or servicing industry involved in a factory of production type of operation, employing up to 50 full-time workers" (Kayode, 2010). While in the United States, the Small Business Administration (SBA) defines a small business as one that is independently owned and operated and is not dominant in its field and meets employment or sales standard developed by the agency (White & Chacaltana, 2016).

Baseline theory

This work is anchored on the theory of micro credit. The birth of microcredit emanates from the early writings of Adam Smith in his unpopular philosophical masterpiece titled, “Theory of the Moral Sentiments” and the emphasis was morally induced. Smith posited that the source of moral judgment is deep-rooted in the concept of sympathy. Smith added that the selfishness of human being constant; there is an undisputed innate interest in the fortunes of their fellow human beings. This view further solidifies an assertion that human nature, most notably human qualities such as compassion for the misery of others affect their operation. An opposing and distinctive view stemming from the economic masterpiece written by Adam Smith and titled; “An Inquiry into the Nature and Causes of Wealth of Nations,” proposes that selfish human nature is central to material progress in non-communist states.

However, the existence of charitable organizations reinforces the empirical observation of sympathy as an essential element of human nature. Therefore, self-driven interests and selfish nature of humans will have an impact on the miserly class through the auspices of compassion. A more recognised and recent advocate of this discourse is Muhammad Yunus from Jobra, Bangladesh; he advanced the micro-credit theory focusing on building capitalism driven by social awareness. Yunus (2016) argued that variants of private profit-oriented businesses could be envisioned with a welfare priority for its customers.

Furthermore, private firms’ impact on their clientele increases the association with the firm’s profit. Yunus (2016) adjudged the neo-classical theory of production incomplete and unfit to be the general model of capitalism owing to the exclusion of individuals who are more concerned with the welfare of others. He put forward a more accepted general model specifying that entrepreneurs are constrained to either financial return-oriented or social return-oriented organisations. The third group is sacrosanct to this study as it incorporates entrepreneurs that consider both rates of return in making critical decisions to generate a positive return on investment. This group houses socially-inclined micro-finance entrepreneurs eager to affect their local communities positively as regards social and economic problems.

Empirical Review

Akpan and Nneji (2015) investigated the contribution of microfinance banks to the development of small and medium scale business in Nigeria. Primary data was employed via the use of a structured questionnaire shared to 100 SMB operators and 80 MFB operators; constituting a sample size of 180. The analysis of data collected using interviews and questionnaires was performed using the OLS multiple regression technique. Findings suggest that microfinancing enhances growth of SMBs in Nigeria. Furthermore, the growth and performance level of the SMBs depends largely on the activities of SMBs operating in that vicinity.

In lieu of examining true effects covering the grassroots can be seen in Ashamu (2014) where he examined the performance of Micro finance Institutions (MFIS) in Lagos State, based on the development of small and medium scale industry. He used structured questionnaires similar to

Akpan and Nneji (2015) to collect data from study participants. Findings suggest that the establishment of Microfinance has contributed to the success of small-scale industries in Lagos state.

Taking a robust sample size, Oleka, Maduagwu and Igwenagu (2016) aimed at evaluating the extent to which micro-finance banks have helped in financing small and medium business (SMBs) in Nigeria. Results deduced is in line with popular findings suggesting that access to microfinance significantly enhance growth of small and medium enterprises in Nigeria. Sule (2018) towed same line as aforementioned studies and found that 71.7% of the change in SMBs and Nigerian development was accounted for by the microfinance operation.

Ofeimum, Nwakoby and Izekor (2018) in their collective effort sought to examine the relevance of micro-financing of small businesses in Nigeria. Data analytical method chosen was the ordinary least squares method and nature of data is time-series extracted from Nigerian-based MFBs and Central Bank of Nigeria. Findings pinpoint that there is a negative relationship between inflation and small business growth; micro lending rate has an insignificant and negative relationship with small business growth; sectoral spread of micro loans has a significant effect on the growth of small businesses in Nigeria and micro loan gestation period had no significant relationship with small business growth for the period under review.

Further study on MFBs impact on growth was by Apere (2016), who relied on secondary data and advanced time-series econometrics techniques to investigate the impact of microfinance banks on economic growth in Nigeria. The result of the co-integration test suggests that there is a long-run relationship between microfinance bank loans, investment and economic growth in Nigeria. Due to available econometric evidence, the study concluded that the activities of microfinance bank have the capacity to influence the entire economy if it is well coordinated. On the other hand, the findings of Wachukwu, Onyema and Amadi (2018) differed from the findings of Apere (2016), stating that growth of MFB credit and investment growth is negatively related to growth in Nigeria.

In a study conducted by Dionco-Adetayo (2016) on how the programme's promotion policy affects the development of small enterprises. The study aimed at identifying programmes, promote small-scale industries, assess them on how they meet their objectives and test the effects of these programmes on business growth. The study was conducted in Lagos State where industrial and commercial activities are highly concentrated. The independent variables consist of: small business development measured by the size of the amount of labour, business structure and technology development. On the other hand, the dependent variable is company promotion policy programme that is operated and measured with Likert scale. Descriptive and inferential analyses were used to analyse the data obtained through structured questionnaires. It was revealed that the corporate promotional programmes focused on the development of small industry in terms of technical aspects, education, training, technology adaptation and commercialization and information services. The awareness level of SMEs of such programmes is still low which hampered small industries in utilizing these programmes.

In another study carried out by Babagana (2010) and Hassan and Olaniran (2011) examined the impact of the role played by microfinance banks (MFBs) in promoting the performance of SMEs in Nigeria. The research results indicated a positive impact of MFBs in fostering the performance of SMEs in the country. Akingunola (2017) also examined the specific financing options available to SMEs in Nigeria and their contributions to economic growth. Financing aid agencies have contribut-

ed to the development of SMBs in Nigeria with particular reference to the Industrial Development Center (IDC). Their SMB financing aid agencies proved that they were able to increase the output of SMBs.

Obasan and Arikewuyo (2015) examined the effects of pre-post bank consolidation on the accessibility to finance by SMBs in Nigeria. Research results indicated that prior to banking consolidation, access to SMEs to get credit was very difficult and this curtailed the growth of SMEs in Nigeria. With banking consolidation, the impact on the growth of SMEs and economic growth of Nigeria tended to be positive. Ahiawodze and Adade (2016) investigated the effects of the company's access to credit for Small and Medium Business SMBs in the Volta Region of Ghana using both surveys and econometric methods. The survey involved a sample of 78 SMEs in manufacturing sector of the Ho Municipality. Econometric model defined the company's growth as the dependent variable and the independent variables included access to credit, total investments, age of the company, the initial capital, the level of education and the annual turnover of the company. Both surveys and econometric results showed that access to credit provided a significant positive effect on the growth of SMEs in Ho-city of Ghana.

Research Method

This study adopts an ex-post facto research design approach for the data analysis. This approach combines theoretical consideration (a prior criterion) with the empirical observation and extract maximum information from the available data. It enables us therefore to observe the effects of explanatory variables on the dependent variables.

The data is secondary data consisting of annual time series data covering the period from 1990 to 2020. The data are all sourced from the Central Bank of Nigeria database. The researchers employed ordinary least square multiple regression for the analysis. Ordinary least square multiple regression test the effect of microfinance banks' credit on the performance of small and medium business in Nigeria

Empirical Model Specification

The model specification is given as:

PAS = f(MCA) (1)

PMS = f(MCM) (2)

PSTS = f(MCTS) (3)

This functional model was trans-modified into the econometric form by the introduction of the constant a, β and error term цas:

Where PAS = performance

PAS = a+b MCA + ц (4)

PMS = a+b MCM + ц (5)

PTS = a+b MCTS + ц (6)

Where PAS = Performance of Small and Medium Scale of Agricultural sector.

PMS = Performance of small and medium scale of manufacturing sector

PTS = Performance of small and medium scale of transport and service sector.

MCA = Microcredit to Agricultural sector.

MCM = Microcredit to manufacturing sector

MCTS = Microcredit to transport and service sector

a = constant variable

b1 b2b3 = Coefficient of Independent variable (slope)

m = term

Results and Discussion

The data were analysed to answer research questions and achieve the stated objectives. In all, three hypotheses were tested for the study. Ordinary least square multiple regression was used for the analysis. The result of the analyses is summarized below:

Table 1: Ordinary Least Square Simple Regression on Agricultural performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.916a	.839	.833	3761.12040

a. Predictors: (Constant), MCA

ANOVAa

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1923358168.952	1	1923358168.952	135.965	.000b
	Residual	367796692.769	26	14146026.645		
	Total	2291154861.721	27			

a. Dependent Variable: PAS

b. Predictors: (Constant), MCA

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2235.721	953.304		2.345	.027
	MCA	1.495	.128	.916	11.660	.000

a. Dependent Variable: PAS

Source: *SPSS version 23*

From the table above, MCA is the independent variable whereas the PAS is the dependent variable. The result of the analysis showed that MCA had positive significant effect on PAS at 5 percent level of significance during the period of the study. The adjusted r^2 of 0.833 implies that variation in the explanatory variable account for 83.3% of the variation in performance in agriculture. F-Statistic measures the overall significance of the model. The F-statistic is 135.965 and the probability of F-statistic is 0.000 is far less than 0.05 power of test. This means that micro-credit to agriculture had a positive significant effect on the performance of agriculture of small and medium scale businesses in Nigeria.

Table 2: Ordinary Least Square Simple Regression on manufacturing performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.883a	.779	.771	2039.85871

a. Predictors: (Constant), MCM

ANOVAa

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	381355436.488	1	381355436.488	91.649	.000b
	Residual	108186612.956	26	4161023.575		
	Total	489542049.444	27			

a. Dependent Variable: PMS

b. Predictors: (Constant), MCM

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	48.782	568.049		.086	.932
	MCM	2.467	.258	.883	9.573	.000

a. Dependent Variable: PMS

Source: *SPSS version 23*

From table 3, MCM is the independent variable whereas the PMS is the dependent variable. The result of the analysis showed that MCM had positive significant effect on PMS at 5 percent level of significance during the period of the study. The adjusted r2 0.883 implies that variation in the explanatory variable account for 883% of the variation in performance in manufacturing. F-Statistic measures the overall significance of the model. The F-statistic is 91.649 and the probability of F-statistic is 0.000 is far less than 0.05 power of test. This means that micro-credit to manufacturing had a positive significant effect on the performance of manufacturing of small and medium scale businesses in Nigeria.

Table 3: Regression on transport and service performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.856^a	.733	.722	12662.00833

a. Predictors: (Constant), MCS

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1142361414 0.495	1	11423614140 .495	71.252	.000^b
	Residual	4168487825. 957	26	160326454.8 45		
	Total	1559210196 6.452	27			

a. Dependent Variable: PTS

b. Predictors: (Constant), MCS

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	8695.224	2888.010		3.011	.006
	MCS	.447	.053	.856	8.441	.000

a. Dependent Variable: PTS

Source: *SPSS version 23*

From table 4.3, MCS is the independent variable whereas PTS is the dependent variable. The result of the analysis showed that MCS had positive significant effect on PTS at 5 percent level of significance during the period of the study. The adjusted r2 0.722 implies that variation in all the explanatory variables account for 72.2% of the variation in performance of transport and service. F-Statistic measures the overall significance of the model. The F-statistic is 71.252 and the probability of F-statistic is 0.000 is far less than 0.05 power of test. This means that micro-credit to transport and service had a positive significant effect on performance of transport and service of small and medium scale, business in Nigeria.

Conclusion and Recommendations

Based on the findings above, the researchers therefore concluded that there is a positive significant relationship between microfinance bank credit to agriculture and performance of agricultural sector in Nigeria. Microfinance bank credit to manufacturing had positive significant effect on performance of manufacturing sector in Nigeria and microfinance bank credit to transport and service had positive significant effect on performance of transport and service sector in Nigeria and also concluded that the underlying theory in this study had fully explained the findings of the study. Based on the findings of the study, the following recommendations have been made to guide the management for decision making:

Microfinance bank management should sustain the credit to agriculture because it enhances the performance of agricultural sector.

Microfinance management should also sustain the credit to manufacturing because it enhances the performance of manufacturing sector in Nigeria.

Microfinance management should also grant more credit to transport and service sector it enhances the performance of transport and service sector in Nigeria.

References

Abereijo, O.A. & Fayomi, O. (2005). Innovative approach to SME financing in Nigeria: A review of small and medium industries equity investment scheme (SMIEIS). *Journal of Social Sciences*, 11(3), 219-227.

Afolabi, M.O. (2012). Growth effect of small and medium enterprise (SMEs) financing in Nigeria. *Journal of African Macroeconomic Review*, 3(1), 192 - 205.

Ahiawodze, A.K. & Adade, T.C. (2016). Access to credit and growth of small and medium scale enterprises in Ghana. *British Journal of Economics, Finance and Management Sciences,* 6(2), 34-51.

Akingunola, R.O. (2017). Small and medium scale enterprises and economic growth in Nigeria: An sssessment of financing options. *Pakistan Journal of Business and Economic Review*, 2(1), 34-56

Akpan, E. & Nneji, I. (2015). Contribution of microfinance banks to the development of small and medium scale enterprises in Nigeria. *Research Journal of Finance and Accounting*. 6(8), 19-28.

Almeyda, T. & Branch, E. (2019). Measuring the impact of human resources management on organizational performance. *University of Macedonia (GREECE) Journal of Industrial Engineering and Management* 01(02): 119-142- ISSN: 2013-0853.

Anureev, V.S. (2017). Reconfiguration of financial system elements to restore economic growth: The system simplicity and transformation towards State-based and corporate-based types. *European Research Studies Journal,* 20(2A), 281-307.

Anyanwu, C.M. (2001). Financing and promoting small-scale industries: Concepts, issues and prospects. CBN Bullion, 25(3).

Apere, T. (2016). The impact of microfinance banks on economic growth in Nigeria. *International Journal of Academic Research in Economics and Management Sciences.* 5(4), 53-61.

Apolot, S. (2012). Organizational learning, innovation and small and medium enterprise (SMEs) performance in Uganda. A research dissertation submitted to Graduate and Research Centre in Partial Fulfillment of the Requirements of the Award of Master of Science in Entreprenuership and Small Business Management of Makerere University.

Ashamu, S. (2014). The impact of microfinance on small scale business in Nigeria. Journal of Policies and Development Studies. Vol. 9(1); 179-193.

Babagana, S.A. (2010). Impact assessment of the role of micro finance banks in promoting small and medium enterprises growth in Nigeria. *Journal of economic development,* 2(1), 65-74.

Breckova, P. & HavHcek, K. (2013). Leaders management and personnel controlling in SMEs. *European Research Studies Journal*, 16(4), Special Issue on SMEs.

Carr, C. O., & Tong, E. I. (2016). An empirical investigation of value-chain analysis and competitive advantage in the Nigerian manufacturing industry. *Africa Research Review*, 5(23), 188-198.

Dionco-Adetayo, E.A., Awoniyi, M.O., Adetayo, J.O. & Elumilade, D.O. (2016). Enterprise promotion policy on the development of small scale industries in Nigeria: An assessment. refereed paper; SMEEntrepreneurship Global Conference.

Hassan M.A & Olaniran S.O. (2018). Small business entrepreneurs through assistance institutions: The role of industrial development centre, Osogbo, Nigeria. *International Journal of Business and Management,* 6(2), 213-226.

HavHcek, K., Thalassinos I.E. & Berezkinova, L. (2013). Innovation management and controlling in SMEs. *European Research Studies Journal*, 16(4), 5 7-70

Joseph, K.M. & Dansu, J.A (2013). Dynamic capabilities; what are they? *Strategic Management Journal.* 21(10-11); 1105-1121.

Katua, N. T. (2014). The role of SMEs in employment creation and economic growth in selected countries. *International Journal of Education and Research*, 2(12).

Kayode, N. (2010). Job creation versus job shedding and the role of SMEs in economic development. *African Journal of Business Management*, 4(11), 2288-2295.

Kimemia, M. (2014). Supporting small and medium-sized enterprises in preparing for the Euro adoption in the Czech Republic. *European Research Studies Journal,* 19(4), 27-41.

Kira, A.R. (2017). Determinants of financing constraints in East African countries' SMEs. *International Journal of Business and Management*, 8(8).

Obasan, K.A. & Arikewuyo, K.A. (2015). The effect of pre-post bank consolidation on the accessibility of finance to SMEs in Nigeria. *Journal and Management Research,* 1(3), 108-120.

Obiwuru, G., Okwu C. Akpa, O & Nwankwere, R. (2016). Effects of microfinance banks on small businesses' growth in Nigeria. *International Journal of Economics and Business Management.* 4 (4), 15-25.

Ofeimum, M. Nwakoby, K. & Izekor, K. (2018). Value chain analysis and organisational performance of beer manufacturing companies in Kenya. School of Business, University of Nairobi.

Ogujiuba, K., Fadila, J. & Stiegler, N. (2016). Challenges of microfinance access in Nigeria: implications for entrepreneurship development. *Mediterranean Journal of Social Sciences,* 4(6), 611-618.

Oleka, C.D., Maduagwu, E.N. & Igvenagu, C.M. (2016). Analysis of the impact of microfinance on the performance of small and medium scale enterprises in Nigeria. *IJSAR Journal of Management and Social Sciences*. 1(2), 45-64.

Quaye, I, Abrokwah, E., Sarbah, A., & Osei, J. Y. (2014). Bridging the SME financing gap in Ghana: The role of microfinanee institutions. *Journal of Business and Management*, 8 (12), 12-19

Sule, O. (2018). The impact of microfinance bank on small and medium scale enterprises in Nigeria development. *Scholarly Journal of Business Administration*. 7(2), 26-34.

Theriou, G.N. (2016). Strategic management process and the importance of structured Formality, financial and non-financial information. *European Research Studies Journal*, 18(2), 3-28.

Tijani, D.J. (2019). Explicating dynamic capabilities: The nature and micro-foundations of (sustainable) enterprise performance. *Strategic Management Journal*. 28(13), 1319-1350.

Uremadu, S. O. Ani, O. I. & Odili, O. (2018). Banking system credit to Small and medium scale enterprises (SMEs) and economic growth in Nigeria: A co-integration approach. *JOSR Journal Economics and Finance,* 5(6).

Wachukwu, I.P., Onyema, J.I. & Amadi, S.N (2018). Micro-finance banking and economic growth of Nigeria. *JFin Mark*. 2(4); 16-20.

Wang, M. (2015). Supporting small and medium-sized enterprises in preparing for the Euro adoption in the Czech Republic. *European Research Studies Journal*, 19(4), 27-41.

White, L.W. & Chacaltana, T. (2016). Implementing e-HRM: The readiness of SME manufacturing companies in Malaysia. *Asia Pacific Business Review*, 12(4), 465-485.

Williams, F. & Andersons, S. (1991). Microfinance credit facilities and the growth of the small and medium scale enterprises in the Cape Coast metropolis of Ghana. *International Journal of Economics, Commerce and Management United Kingdom*. 4(12); 7 19-745.

Yarron, R. (2018). SMEs, business risks and sustainability in Nigeria. *European Journal of Business and Social Sciences*, 2(9), 76-94.

Yunus, I. E. (2016). The recent financial crisis and its impact on the performance indicators of selected countries during the crisis period: A reply. *International Journal of Economics and Business Administration*, 3(1), 3-20.

Money Market Instruments and Economic Growth in Nigeria

Grace U. Nwansi, PhD
Department of Finance and Banking
Federal Polytechnic Nekede, Owerri, Imo State
gunwasi96@gmail.com

Samuel Dibiah, PhD
Department of Banking and Finance
Captain Elechi Amadi Polytechnic Port Harcourt
samueldibiah838@gmail.com

Abstract
This study examines the effects of money market instruments on economic growth in Nigeria utilizing time series data from 1991 to 2020. The study adopted the ex-post facto research design while the ordinary least square (OLS) regression was used in analysing the data that were collated from Central bank of Nigeria statistical bulletin. The Gross domestic Product (GDP) was used as proxy for economic growth while Treasury bills (CP), Commercial papers (CP), and Bankers' acceptances (BA) were used as proxy for money market variables. The findings revealed that TBs, CPs have positive and significant influence on economic growth while Bas had positive but insignificant influence on economic growth in Nigeria. The study therefore recommended that the monetary authorities should initiate policies that would encourage money market operations while Central bank of Nigeria surveillance role should be proactive in order to check practices that could undermine or sabotage market integrity and soundness.
Keywords: Money market, treasury bills, bankers' acceptances, commercial papers, economic growth

Introduction

Money and capital markets make up the Nigerian financial system. The main goal of the financial system is to mobilize funds from the surplus sector to the deficit sector which in turn stabilize the economy. While the money market deals on short term money market instruments, the capital market deals on long term instruments. Both are required for the improvement of the economy as they enhance the long-term and short-term capital needs of the economy. Money market is a market where instruments that mature in less than one year are traded, short term funds from the surplus sector of the economy to the deficit sector which could be public or private to bridge financial gaps by trading in short term instruments such as treasury bills, treasury certificates, call money, certificate of deposit and commercial papers. Money market instruments serve as a buffer which banks rely on in time of cash crunch. Banks' involvement in the manipulation of short-term market debt-instruments as an intermediary, yields returns which adds to profit maximization.

The money market is an integral part of the Nigerian economy since it plays a vital role in the economic growth process of the country. (Kehinde & Adejuwon, 2011). Specifically, it plays a key role in banks liquidity management and the transmission of monetary policy by providing the appropriate instruments for liquidity trading (Rigg & Zibell, 2009). The money market allows the refinancing of short and medium-term instruments to facilitate and mitigate business liquidity and risk (Iwedi & Igbanibo 2015), and control of money supply and demand-pull inflation, determination of short-run interest rates (Ekmechioglu, 2013). In normal times, money markets are among the most liquid in the financial sector.

By providing the appropriate instruments and partners for liquidity trading, the money market allows the refinancing of short and medium-term positions and facilitates the mitigation of your business' liquidity risk. The banking system and the money market represent the exclusive setting monetary policy operations. Unarguably, a developed, active and efficient interbank market enhances the efficiency of central bank's monetary policy, transmitting its impulses into the economy best policy. Thus, the growth of the money market smoothens the progress of financial intermediation and boosts lending to economy and hence improving the country's economic and social welfare

(Ochei & Osabuohien, 2012; Dabwor, 2009). Therefore, the growth of the money market is in all stakeholders' interest, the banking system itself, the central bank and the economy as a whole.

Statement of the problem

Money market transactions play important role in the economic growth and development of Nigeria. It has continued to draw the attention of some policy makers and scholars in recent times. This is due largely to the fact that most of the previous research had focused on development in the capital market, and not so much on the money market impact on economic growth in Nigeria.

Although the money market in Nigeria has witnessed some expansion in recent times owing to the various reform policies, there are observed problems which the market has to contend with. The overall performance of the market since inception has been mixed. In particular, as propellers of economic growth and development, studies have argued that the money market has performed below its potentials. The market is shallow when compared with some advanced and emerging countries, but fairly satisfactory relative to Sub-Sahara African countries. Some of the challenges facing the Nigerian money market include; preponderance of government instruments, paucity of private sector instruments, uncertainty and lack of confidence in the market, wide margins between lending and deposit rates, etc. the market lacks breadth, resilience and depth needed to effectively discharge its functions, particularly the intermediation function. The effect of these reforms on the growth of the money market raises the question whether the money market transactions influence economic growth in Nigeria in the face of these problems.

Objectives of the Study

The major objective of the study is to examine the effect of money market instruments on economic growth in Nigeria. However the specific objectives are to:

Assess the influence of Treasury bill on the economic growth in Nigeria.

2. Examine the influence of Commercial papers on the economic growth in Nigeria.

Assess the effect of Bankers' acceptances on economic growth in Nigeria.

Research Hypotheses

Ho_1: Treasury bills have no significant influence on Nigeria's economic growth.
Ho_2: Commercial Papers have no significant relationship with economic growth in Nigeria.
Ho_3: Bankers' Acceptances have no significant effect on Nigeria's economic growth.

Concept of Money Market

The money market is the market where securities of short term nature of not more than one year are bought and sold. It has no central location; businesses are usually transacted on telephone, fax, telex, and so on (Ikpefan & Osabuohein, 2012). Prices of securities dealth with are usually determined by the influence of the federal governmentof Nigeria's monetary policiesbeing issued annually and monitored by the Central Bank. They are of high quality, unsecured but relatively low risks financial assets such as; savings of various forms, negotiable and non-negotiable certificate of deposits, bankers' acceptances, commercial papers, call money, treasury bills and treasury certificate.

The market is of great help in financing in financing industry and commerce. In developed economies, it helps industries in providing their working capital requirements through the system of finance bills, commercial paper, among others. Conditions in the money market and the short-term rates of interest influence the long-term capital market as well as the long-term rates of interest. In advanced economies, the money market constitutes the most institution for creating liquidity for government, companies and individuals (Ikpefan & Osabuohien, 2012). They are highly organized commercial banking system, presence of central bank, availability of proper credit instruments; existence of a number of submarkets, availability of ample resources, stable political condition and large volume of international trade. The presence of these factors would enhance the volume of transactions of money market instruments in the discount market and the general economy in general. The Nigerian money market existing is also inadequate and constrained by the absence of submarkets and availability of adequate credit instruments required for the smooth operations of the market.

Uruakpa (2019) ascertain that money provides commercial banks with a ready market where they can invest their excess reserves and earn interest while maintaining liquidity. The short –term investments such as bills of exchange can easily be converted to cash to support customer withdrawals. Also, when faced with liquidity problems, they can borrow from the money market on a short-term basis as an alternative to borrowing from the central bank. The advantage of this is that the money market may charge lower interest rates on short-term loans than the central bank typically does. The major players in the money markets include individuals, companies, banks, discount houses and governments.

Money market is a market where short-term financial products are traded. The money market provides a platform for raising and investing in short-term funds. The time implication of short term securities is usually between a day to two years or lesser. The securities traded in the money market are known for the ease in their convertibility to money, and thus, usually referred to as near money. In Nigeria, money market transactions are usually done through the instrumentalities or platform of the Central Bank of Nigeria (CBN), Deposit Money Banks, Insurance companies, Finance houses, etc (Gbanador, 2021).

Money Market Instruments

Money market instruments are short-term debt claims that are readily marketable or convertible to cash (Nzotta, 1999). In view of the rapid changes on account of financial deregulation and global financial markets integration, central banks in several countries have striven to develop and deepen the money markets by enlarging the ambit of instruments5 and participants so as to improve the transmission channels of monetary policy. The structure of money markets determines the type of instruments that are feasible for the conduct of monetary management. Evidence and experience indicate that preference for market oriented an instrument by the monetary authorities helps to promote broader market development. Some examples of money market instrument are, treasury bills, call money, commercial papers, bankers' acceptances, certificate of deposits, treasury certificate, bankers unit fund, etc.

Treasury Bills (TB): Treasury Bills are another important component of the money market. They are short term obligations of the central government, usually in tenors of up to one year, and are considered risk free investments. They became more important as debt financing by the government increased. They are generally the most liquid short term security in a given market, and given their low risk and high liquidity they will have very low yields, which will form the short term yield curve. They are issued by the Treasury as part of its debt management process; they can be issued either on a regular schedule (which contributes to market development) or on an ad hoc basis, usually by some form of auction. Their low risk and liquidity make them extremely useful as collateral and for central bank OMOs. They are traditionally issued in discount form. Although they are obligations of the treasury, they are sometimes issued by the central bank acting as fiscal agent for the government. Treasury bills in this study is used as an independent variable. It is expected that increases in Treasury bills will influence economic growth.

Call Money: It is an exceptionally short-term financial institution is loan that must be repaid on demand and does not contain regular principal and interest payments. As opposed to term loan that has fixed maturity and repayment arrangement, call money needs not follow a stereotyped arrangement. It is regularly operated by brokerage companies to fund margin transactions. Brokerages utilize call money as a short-term funding source to shield margin transactions. They are however, unguaranteed, recallable credits that are often more riskier than other credit lines. For example, a brokerage firm XYZ wants to acquire many stocks of Firm123 for a customer. The customer does not have money immediately and requires margin loans which will be repaid in 21 days. The Broker may decide to borrow call money from a financial institution and then use the funds to purchase the stocks. The financial institution may decide not to establish a repayment arrangement for the Broker given that the Broker has promised to repay the loan on time. However, financial institutions can recall the

credit at any time and fix the call money rate at NIBOR + 0.10%. If the financial institution decides to recall the credit before the 21 days expires, the broker may release a margin call to its customer, thereby demanding the customer to pay the loan immediately.

Commercial Papers: Commercial Papers (CP) are unsecured short term debt instruments which can be issued either by financial or non-financial firms and carry the credit risk of the issuer. They are typically issued to fund short term receivables such as working capital. The CP market is tiered by type of issuer and credit rating. CP are usually issued in large denominations and not aimed at retail investors; they are frequently purchased by MMMFs and similar schemes. Issuance is on a tap basis, sometimes under the framework of a "CP program" where the desired amount of outstanding funding is achieved by issuing CP at various tenors. A CP market can be an important step in diversifying the credit market away from total reliance on bank funding. It is a money-market instrument that is often offered by big companies for funds to meet short term debt obligations. It is commonly collateralized solely by an issuing company or financial institution with an agreement to pay the face value on the date of maturity stated on the bill. It is largely unsecured, short-term debt instruments that a corporation or other private organization uses to ensure it has adequate cash on hand to cover operating costs. In view of the fact that it is not supported by collateral, only corporations with exceptional ratings from reputable credit rating organizations will have capacity to offer their notes at good rates. It is commonly offered at a markdown from face value, and normally tendered interest rates that is lesser than shorter maturities bonds. Normally, the lengthier the maturity on a bill, the greater the interest repayment the issuing company offers. These rates oscillate with prevailing conditions in the market, but are usually less than financial institutions' rates. In sum, it is a trading bill (bill of exchange) offered by a corporation, that is recognized by a financial institution (or a bank), unlike Treasury bills that are offered by the government.

Bankers' Acceptances: Bankers Acceptances (BAs) are short term debt instruments issued by non-financial firms, which are then endorsed or guaranteed by a commercial bank. Once they have the guarantee of a bank they have the same credit standing as the bank, and can become easily negotiable. Banker's acceptance (BA) is a future promissory note that is recognized and guaranteed by financial institutions and drawn on a deposit at the institution. BA stipulates the person to whom the payment is due, the amount of the fund and the date. Once the acceptance is done by the financial institution, the draft develops into an unconditional liability of the financial institution. However, the bill-holder can discount the draft for immediate cash, while the new holder may need to wait till the maturity of the fund. BA commonly begins as the time a draft is drawn on a financial institution's deposit by a bank's customer to pay at a later date, say within six months. Afterward, the financial institution accepts and guarantees payment to the draft holder. This is equivalent to a postdated cheque drawn on a deposit with overdraft safeguard. It makes a financial transaction among parties who may not be familiar with each other safer, since they allow the parties to substitute the financial institution's credit worthiness for that of the individual owing. Banker's acceptances are typically sold in multiples of millions of Naira and those that are smaller than the agreed multiple is referred to as odd lots.

Certificates of Deposit: A certificate of deposit (CD) is a fixed deposit instrument commonly offered by financial institutions, such as banks, credit thrifts and unions. CDs are analogous to savings deposits in that they are protected "money in the bank" and thus virtually risk free. In Nigeria, it is insured by Nigerian Deposit Insurance Corporation (NDIC). CDs are different from savings deposits, as the CD has a fixed term that is specific, (say one, three, or six months, or one to five years) and, typically with a set interest rate. The financial institution may require the client to hold the instrument till maturity, when the client may decide to withdraw the fund with accumulated interest. In return of the client placing the fund for an agreed period, banks may offer greater interest rates compare to accounts where clients can withdraw on request. Fixed interest rates are normal, but some banks grant CDs with menu of flexible rates. Occasionally, banks may present CDs that are indexed to the capital market, or any other types of indices.

Treasury Certificates: It is a short-term loan from the Central Bank of Nigeria to Federal Government of Nigeria where there is a need to borrow money. In other words, it is largely a non-marketable treasury security issued to the public with a short maturity, typically three months but not more than a calendar year. They are usually issued once or twice monthly with interest rates that are odd (e.g. 7.233% and 9.131%) and offered at par. An example of a treasury certificate is the Central Bank of Nigeria lending N1 billion to the Federal Government of Nigeria for twelve months. It signifies an obligation of the Federal government represented by certificates in denominations ranging from N1 million to N1 billion maturing in one year or less with interest periodically payable by the redemption of coupons. Term money products are short term financing instruments used by banks with fixed maturity typically 30, 60, 90, 180 or 360 days. They offer a longer duration than call money and earn interest rates higher than call money (CBN, 2017).

Unit Trust Funds: A unit trust fund is a pooled resource, which allows a group of investors to combine their cash and invest it. It is an arrangement of mutual investment established under a trust deed. It offers opportunities to a wider-range of securities investments. They are open-ended investments; connoting that there is no-finite number of units issued and it can decrease or increase depending on the net sales and repurchase by existing unit-holders. This is unlike investment trusts. The Units Trust is administered within what is called "Managers Box". The Fund manager commonly makes evaluations at each assessment period to review the portfolio, either by adding or reducing units. This review is usually based on the final net sales and exchanges before the next review period where the Unit Trust is priced on a "Forward Basis". Alternatively, the Unit Trust is priced based on the actual review period. The most common form is the forward pricing. Each Unit Trust has a stated investment objective that will govern the goals and limitations of its management.

Major Players in the Money Market

Central Bank of Nigeria

The Central Bank of Nigeria is a monetary authority that manages the currency of a country or group of countries and controls the money supply, i.e. the amount of money in circulation. The primary goal of many central banks is price stability. In some countries, central banks are also required by law to act in support of full employment. One of the main tools of any central bank is setting interest rates – the “cost of money” – as part of its monetary policy. Most central banks do not engage in retailing banking and an individual cannot open an account or ask for credit facilities/loans. It acts as a bank for the deposit money banks and this is how it influences the flow of money and credit in the economy to achieve stable prices. Commercial banks can turn to the central bank to borrow money, usually to cover very short-term needs. The main activity of most central banks is tied to liquidity management, which involves the routine control of the level of money supply in the system in order to minimize fluctuations in banks reserve balances. Periodically, the Central Bank of Nigeria determines target growth rates of money supply, which are compatible with overall policy goals. It also seeks to align commercial and merchant banking activities with the overall target.

Nigeria Deposit Insurance Corporation (NDIC)

The Nigeria Deposit Insurance Corporation is another agency of the Federal Government of Nigeria that operates independently. The overall objective of the NDIC is to protect depositors and guarantee payment of insured funds in the event of failure of insured institutions. The establishment of NDIC and its commencement of operation in 1989 was the manifestation of a shift in banking regulation away from bank bailout and imposed management of failed or failing banks towards protecting depositors. The operations of the NDIC in conjunction with that of the CBN is part of a three-way safety net strategy that includes deposit insurance, last resort lending and supervision designed to provide some level of protection against losses owing to failure and insolvency. The NDIC is empowered to work out the modalities for the assets and liabilities of a failed bank to be taken over by another bank. For example, in October 2007 the United Bank for Africa

assumed the fixed assets and private sector deposit liabilities of African Express Bank under the supervision of the CBN and the NDIC.

Deposit Money Banks (DMBs)

Commercial banks, also referred to as Deposit Money Banks (DMBs) are financial intermediaries that provide services, such as accepting deposits, granting of business loans, mortgage lending, and basic investment products like savings accounts and time deposits etc. Deposit Money Banks; act as financial intermediaries to channel savers' monies to firms and individuals who seek funding for their activities. They act as a catalyst to facilitate economic growth/development widely recognized by both monetary and development economists. The financial system of Nigeria is dominated by the banking sector, especially the deposit money bank which provides the foundation for the development of the financial system. Their credit component constitutes a major link between the monetary sector and the real sector of the Nigerian economy. Deposit money banks mobilize financial resources and allocate them to productive investments to promote sustainable economic performance and facilitate a vibrant real sector. They not only store our saved cash and lend us money when we need it, but act as the system of arteries that transport money around the economy; which is why they are often known as financial intermediaries. Hence their key function is to transfer surplus money from those who want to lend to those who want to borrow.

Theoretical Review: **Financial Intermediation Theory**

This work is anchored on the financial intermediation theory. This theory was first formalized in the work of Goldsmith, R.W. (1969), McKinnon, R.I. (1973) and Shaw, E. (1973) who see financial market, both money and capital market 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. According to Goldsmith (1969), the positive correlation between financial development and the level of real per capital GNP is attributed to the positive impact that financial development has on encouraging more efficient use of the capital stock.

Also, the growth process has impact on financial market because it creates incentives for further financial development. McKinnon’s thesis is based on the complimentary hypothesis, which is in contrast to the Neo classical monetary growth theory. He argued that there is a complimentarily link between money and physical capital which is reflected in money demand. This complimentary links the demand for money directly and positively with the process of physical capital accumulation because the constitutions of money supply have a first order impact on decision to save and invest.

Furthermore, Shaw (1973) proposed a debt intermediation hypothesis, whereby expand financial intermediation between the savers and investors resulting from financial liberalization (higher real interest rates) and development increase the incentive to save and invest, stimulate investment due to an increase supply of credit, and raises the average efficiency of investment. This view stresses the importance of free entry into and competition within the financial markets as prerequisites for successful financial intermediation.

Mackinnon and (1973) also posited that policies that adversely affect the financial markets would adversely affect the incentive to save because it will cause repression of the financial markets. The key elements of financial repression according to them include; high reserve requirement on deposit, legal ceilings on bank lending and deposit rates, direct credit restriction on foreign currency capital transaction; and restriction on entry into banking activities.

Empirical Review

Ishola, Oni & Kolapo (2021), examined the impact of money market instruments (Treasury bill, Treasury certificates, Certificate of Deposits, Banker’s Acceptances, Development Stock and Commercial Papers) on Economic growth based on secondary data sourced from the Central Bank of

Nigeria (CBN) Statistical Bulletin and National Bureau of Statistics (NBS) publications for 30 years. The study employed statistical techniques such as ADF, Unit Root Test, OLS, multiple-regression and Granger Causality Test to analysis data collected for the study covering the period 1990-2020. The study observed that Bank acceptance and Commercial paper granger cause Gross Domestic Product (GDP). Treasury bill, Treasury certificate and commercial papers have a positive relationship with GDP, but its effect is insignificant in the long run. But banker's acceptance and certificate of deposits has a positive and significant effect on GDP in the long run. In contrast, development stock has no significant effect on GDP in the short and the long run with no granger causal relationship with GDP. The study therefore recommends that Nigerian money market should be reformed in line with the current globalization trend and internationalization of the money market to allow a flow of foreign investment into the economy and also increase the number of tradable instruments in the market.

Adesina-Uthman, Olatunde & Ahmed (2020) re-examines money market impact on economic growth in Nigeria using quarterly data from 2000Q1 to 2018Q4. It utilized the structural vector autoregressive (SVAR) model framework to generate the impulse responses, and variance decomposition of economic growth in Nigeria, resulting from shocks to treasury bills, prime lending rate, maximum lending rate, and money supply growth rate. The findings from the structural VAR model suggest that, while shocks to money supply growth, prime- and maximum lending rates have negative instantaneous impacts on economic growth, shocks to treasury bills rate has a positive instantaneous impact on output growth. This evidence will be useful to the monetary authorities to allow policy decisions to run its course before pronouncing a fresh one on the same issue. The development will also help to avoid policy inconsistency.

Akarara and Eniekezimene (2018) Employed empirical analysis to study Money Market Instruments and Growth of the Nigerian Economy. Using data obtained from Central Bank of Nigeria Statistical Bulletin 2017.Autoregressive Distributive Lag (ARDL) Bound Testing approach to co-integration were conducted. Results shows no form of convergence among the variables in the long -run. It also revealed that money market variables are positively related with economic growth rate both in the short and long-run, except for Certificate of Deposit (COD) and Commercial Paper (CPR) that has an inverse relationship with economic growth in the long run. Broad Money Supply (M2G) which does not seem to have a significant relationship with GDPR both in the short and long-run, while Treasury Certificate (TRC) has a significant positive impact on GDPR in the short-run but an insignificant impact on GDPR in the long-run. It was advised that Central Bank of Nigeria in the use of Treasury Certificate as a means of managing liquidity in the short-run, as its prolonged use would amount to no significant effect in the economy. Also, Certificate of Deposit and Commercial Paper should be used on short term basis, if otherwise; their impact on the economy would be negative.

Imoagwu and Ezeanyeji (2019) investigated the relationship between financial development and economic growth in Nigeria during the period of 1986–2017. The study adopted recent econometric techniques such as Augmented Dickey-Fuller (ADF) and the Phillip-Perron (PP), Unit Root Tests, cointegration test as well as the Toda-Yamamoto causality test was used to accomplish its objectives. The results revealed that financial development has significant positive relationship on economic growth in Nigeria only in the short-run while negative impact in the long-run and that causality runs from financial development to economic growth. Furthermore, the study revealed that the stock market capitalization has significant positive impact on economic growth in Nigeria in the short run while negative significant in long run. The interest rate has positive insignificant effect on economic growth in Nigeria only in the short run while negative significant effect in the long run. The ratio of domestic credit to private sector to GDP have positive significant impact on economic growth in Nigeria only in the long run while positive insignificant in the short run. Causality also runs from stock market development, interest rate, banking sector development and recapitalization to financial development in Nigeria.

Etale and Ayunku (2017) conducted a study to examine the relationship between money market and economic growth in Nigeria. The study adopted money market instruments such as treasury bills (TBs), commercial papers (CPs) and bankers' acceptances (BAs) as proxy for money market (independent variables), and gross domestic product (GDP) as proxy for economic growth (the dependent variable). Secondary time series data for the variables were collected from CBN Statistical Bulletin and the National Bureau of Statistics for the period 1989-2014. The study employed econometric techniques such as ADF, Unit Root Test, OLS, multiple regression and Granger Causality Test to analyze the study data; and found strong evidence that TBs, and CPs had positive and significant influence on GDP, while BAs had positive but insignificant influence on GDP in Nigeria. The granger causality test result revealed no directional causality relationship between TBs and GDP, meaning that TBs does not granger cause GDP and vice-versa. There was also no directional causality relationship between CPs and GDP, BAs and GDP. However, there exists bi-directional relationship running from CPs to TBs and BAs as it was established at 5 per cent level of significance. The study recommended among others that for the money market to influence meaningful economic growth and development in Nigeria, appropriate policies should be employed to strengthen and deepen the market.

Pavtar (2016) investigated the link between money market and economic growth in Nigeria using time series data for the period 1985-2014 collected from the Central Bank of Nigeria. The study adopted treasury bills (TBs), treasury certificates (TCs), commercial papers (CPs) and certificate of deposits (CDs) as the independent variables and proxy for money market; while gross domestic product (GDP) was used as proxy for economic growth. The study adopted an ex-post-facto research design, and employed descriptive statistics, OLS multiple regression techniques for data analysis. The findings revealed that TBs, TCs and CPs had no effect on GDP, but CDs had significant impact on GDP. The study recommended among others the creation of appropriate macroeconomic policies by government to promote economic growth in Nigeria.

Ndugbu, Duruechi & Ojiegbe (2016) examines the relationship between money market instruments and bank performance in Nigeria. The data for the study were sourced from the Central Bank of Nigeria (CBN) Statistical Bulletin. This was analyzed with the Ordinary Least Square (OLS) estimations. Results obtained showed that stationarity of the data were established with the Augmented Dickey Fuller (ADF) Unit Toot test, the Johansen Co-integration test indicated the existence of long-run relationship between the variables. Granger Causality as revealed by the Pairwise tests runs uni-directionally and bi-directionally from Performing Loans and Advances to Money Market Instruments. The Variance Inflation Factor test for multicollinearity shows that multi-collinearity is not severe and therefore can be tolerated. The ordinary least square model estimation revealed specifically that money market instruments (treasury bills, commercial papers, and federal government bond) have positive relationships and significant effects on bank performance in Nigeria. Notably, treasury bills, commercial papers and federal government bonds were the main contributors to bank performance while bankers' acceptance has a negative relationship and significantly impacted adversely on bank performance. The study recommended that, policy makers and stakeholders in the industry should intensify efforts towards improving policies and reforms that encourage investment in money market instruments by banks for greater performance and

Eze and Nera (2017) conducted a study to examine the role of money market on economic development of Nigeria. The study sought to examine the relationship between different money market instruments and the economic development of Nigeria. Four money market instruments (treasury bills, treasury certificates, certificates of deposits, and bankers' acceptances) were chosen to regress against the gross domestic product (representing economic growth), on the basis of which four research objectives and four hypotheses were formulated. Secondary data from 1990 to 2014 were obtained from Central Bank of Nigeria Statistical Bulletin. The methods of analysis included regression, unit root tests, co-integration tests, and parsimonious error correction. The results show

that the money market has significant impact on the growth of the Nigerian economy. However, the impact was specifically significant with respect to bankers' acceptances and certificates of deposits. Based on the findings, the study recommended among others, that, more instruments and innovations should be introduced into the money market to enlarge the scope of the market, and that the money market should be fragmented for expansion.

Iwedi and Igbanibo (2015) investigates the nexus of money market operations on economic growth in Nigeria during the period 1980–2013, using econometric tools of Vector Auto Regression (VAR), Johansen Co-integration and Granger causality tests in the analysis of their Data. The results indicate that there is a positive significant short-run and long-run relationship between money market operations and economic growth in Nigeria. The results of the Causality test suggest that causality flows from economic growth proxy by gross domestic product (GDP) to money market operations but not vice versa. They concluded that money market operations (as key components of the financial system) produced short-term growth tendencies and help to ensure long-run impressive and steady economic growth rates in Nigeria. They recommended that government should both in the short and long run prioritize policies geared towards increasing or developing money market operations in Nigeria in order to make the economy more stable.

Igbinosa and Aigbovo (2015) empirically assesses the impact of money market development on Nigerian economic development between 1986 and2013. The study uses money market indicators (values of treasury bills, commercial papers and bankers acceptances) as measures of money market development and real GDP per capita for economic development, while monetary policy rate was the only control variable. It adopts a multivariate OLS analysis for the estimation process, co-integration analysis for long-run equilibrium relationship and the associated error correction model to determine the short-run impact of the variables. The Granger causality test is used to determine the direction of causality among the variables. The findings of the study are that banker acceptances (LVBA) significantly influences economic development in both the short run and long-run respectively, while value of treasury bills and commercial papers as well as the monetary policy rate have significant impact on economic development only in the long run. Also, a unidirectional causality is found running from value of bankers' acceptances and monetary policy rate to economic development. The study recommends measures to improve and strengthen the money market instruments in order to improve the level of development in Nigerian economy. Also, policies measures by the monetary authority (CBN) to promote market integrity and soundness which will enable the money market to continue to stimulate economic development in Nigeria were recommended.

Research Method

Functional Specification

GDP= f(TB, CP, BA) (1)

Econometric Specification

$GDP = a_0 + \beta_1 TB + \beta_2 CP + \beta_3 BA + \mu_t$ (2)

This study adopts an ex-post facto research design approach for the data analysis. This approach combines theoretical consideration (a prior criterion) with the empirical observation and extract maximum information from the available data. It enables us therefore to observe the effects of explanatory variables on the dependent variables. The data is secondary data consisting of annual time series data covering the period from 1991 to 2020. The data are all sourced from the Central Bank of Nigeria database. The multiple regression analysis method of data analysis was utilized in this study.

Functional Specification

GDP= f(TB, CP, BA) (1)

Econometric Specification

$GDP = a_0 + \beta_1 TB + \beta_2 CP + \beta_3 BA + \mu_t$ (2)

Where;

GDP = Gross Domestic Product

TB = Treasury bills

CP = Commercial papers

BA = Bankers' acceptance

Results and Discussion

Table 1: Regression Analysis for money market variable and GDP

Model Summary

Model	R	R Square	Adjusted R	Std. Error of the Estimate
1	979[a]	958	953	4194.07115

Predictors: (Constant), BA, TB, CP
Dependent Variable: GDP

ANOVA"

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	10353610663.7 44	3	3451203554.58 1	196.200	„000"
1. Residual	457346052.830	26	17590232.801		
Total	10810956716.5 74	29			

Dependent Variable: GDP
Predictors: (Constant), BA, TB, CP

Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	19789.036	1456.347		13.588	.000					
	TB	16.754	.708	.989	23.653	.000	.941	.978	.954	.931	1.07
	CP	25.469	6.515	.241	3.909	.001	.080	.608	.158	.429	2.33
	BA	35.346	48.535	.044	.728	.473	.196	.141	.029	.446	2.24

a. Dependent Variable: GDP

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions (Constant)	TB	CP	BA
1	1	2.782	1.000	.03	.03	.02	.02
	2	.875	1.783	.03	.20	.18	.01
	3	.220	3.557	.60	.77	.18	.01
	4	.123	4.754	.35	.00	.62	.95

a. Dependent Variable: GDP

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	20767.8088	80713.1094	43559.6877	18895.00086	30
Residual	-11507.42285	7581.43018	.00000	3971.21563	30
Std. Predicted Value	-1.206	1.966	.000	1.000	30
Std. Residual	-2.744	1.808	.000	.947	30

a. Dependent Variable: GDP

Source: Researcher's Computation using SPSS

The findings from the first hypothesis revealed that there is a significant relationship between Treasury Bills and Gross Domestic Product. The result from the data analysis shows that the t-cal. value of 23.653 is greater than the t-tab. value of 1.96.

2. The findings from the second hypothesis revealed that there is a significant relationship between Commercial Papers and Gross Domestic Product. The result from the data analysis shows that the t-cal. value of 3.91 is greater than the t-tab. value of 1.96.

The findings from the third hypothesis revealed that there is no significant relationship between All Share Index and Gross Domestic Product. The result from the data analysis shows that the t-cal. value of 0.73 is lesser than the t-tab. value of 1.96.

Summary and Conclusion

This study examined the relationship between money market instrument and economic growth in Nigeria. The study employed the OLS multiple regression to analyze the data obtained from secondary sources for the period 1991-2020. The findings revealed that TBs, CPs have positive and significant influence on economic growth while BAs had positive but insignificant influence on economic growth. Therefore, we conclude that money market instruments have significant relationship with economic growth in Nigeria. The following recommendations are suggested for implementation.

Monetary authority should initiate policies that would encourage Money market operations.

CBN surveillance role should be proactive in order to check practices that could undermine or sabotage market integrity and soundness.

Bankers' acceptances as a money market financial instrument should he strengthened to contribute positively to economic development in the long run.

Government should put in place appropriate and sound macroeconomic policies (particularly monetary) to boost the development of the money market with a view to promoting productive activities and investments.

Government should deliberately and consciously provide the enabling environment for a vibrant and efficient financial system that promotes short-term lending opportunities amongst economic units and financial institutions in particular.

References

Adofu, I. & Abula, M. (2010) Domestic debt and the Nigerian economy, *Current Research Journal of Economic Theory*, 2(1), 22-26.

Bodin, J. (1957). *A History of Political Thought in the Sixteenth Century.* In chapter One, in J.W. Allen and Julian H. Franklin. Cornell University Press, Ithaca and London.

Dabwor T. D. (2009). The Nigerian banking system and the challenges of financial intermediation in the Twenty First Century. *Jos Journal of Economics*, 4(1).

Ehigiamusoe, U. K. (2013). The link between money market and economic growth in Nigeria: Vector Error Correction Model Approach, *World Academy of Science Engineering and Technology, International Journal of Social Education, Economics and Management Engineering*, 7 (12). 1792-1800.

Ekmekcioglu, E. (2013). Role of financial markets in a global economy and the concept of uncertainty. *International Journal of Academic Research in Economics and Management Sciences*, 2(4), 199-206.

Etale, L. M., & Ayunku, P. E. (2017, December). Does money market spur economic growth in Nigeria? Granger causality approach. *International Journal of Development and Economic Sustainability*, 5(7), 28-3 7.

Eze, G. P., & Nera, M. (2017). Money market and economic growth in Nigeria: A causality analysis. *Online Journal of Arts, Management and Social Sciences*, 2(l), 140- 163.

Ezirim, C.B. (2005). *Finance Dynamics, Principles, Techniques and Applications.* Port-Harcourt. Markowitz Centre for Research and Development.

Fisher, I. (1911). "The Purchasing Power of Money, its Determination and Relation to Credit, Interest and Crises", *The Online Library of Liberty: A Project Of Liberty Fund, Inc. United State of America*.

Ikpefan, O.A., & Osabohien, E. (2012). Discount houses, money market and economic growth in Nigeria, *Economic Insight Trends and challenges*. 1(3), 19-30.

Imoagwu, C. P. & Ezeanyeji, C.I. (2019). Financial development and economic growth nexus in Nigeria. *International Journal of Business and Management Invention IJBMI,),* 8(3), 50-63.

Ishola, O.P., Oni, A.S., & Kolapo, M.B. (2021). Impact of money market instruments on economic growth in Nigeria. *International Journal of Social Science and Human Research*, 4(4), 689-697.

Iwedi, M. and Igbanibo, D. S. (2015). The nexus between money market operations and economic growth in Nigeria: An empirical investigation, *International Journal of Banking and Finance Research*, 1(2), 1-17.

Kehinde, J. S. & Adejuwon, K. D. (2011). Financial institutions as catalyst to economic development: The Nigerian experience. *European Journal of Humanities and Social Sciences*. 8 (1): 322-334.

Martins, C. (2014). The Impact of Nigeria Money Market in Accelerating Economic Growth and Development. http://martinsiibrarv.biogspot.com.

Mordi C.N.O. (2010). "The Link between the financial (banking) Sector and the real economy." *Central Bank of Nigeria Economic and Financial Review*, 48(4).

Nwosu, C. P. & Hamman, H. M. (2008). The Nigerian money market: Issues and challenges, *Bullion Publication of the Central Bank of Nigeria*, 32(2), 51-62.

Ochei, A. 1. & Osabuohien, F. (2012). Discount houses, money market and economic growth in Nigeria (1992-2007). *Economic Insights Trends and challenges,* 1(3), 19-30.

Pavtar, A. (2016). The nexus between money market instruments and Nigeria's economic growth: A time series analysis, Journal of Accounting and Finance Management, 2(3), 22-39.

Rigg, R. & Zibell, L. S. (2009). The financial crisis and money markets in emerging Asia. Asian Development Bank (ADB) Working Paper Series on Regional Economic Integration, (38), 1-48.

Ugolini, P. (2001). News Brief: International Monetary Fund and World Bank Publish Public Debt

Management Guidelines, News Brief No. 1/36: IMF.
Uruakpa, P.C. (2019). Impact of Money Market Reforms on Economic Growth of Nigeria 1990-2017. Archives of Business Research, 7(2), 1

Corporate Sustainability Accounting and Sustainable Growth of Listed Companies in Nigeria

Udo, Ekubiat John PhD, FCA
Department of Accountancy, School of Business and Management
Akwa Ibom State Polytechnic, Ikot Osurua, Ikot Ekpene, Nigeria
ekujohnn79@gmail.com

Chukwuekezie, Magnus Nnaekeka PhD, FCA, FNIM
Keystone Bank, 39 Abak Road, Uyo, Akwa Ibom State, Nigeria

Abstract
This study is an empirical examination of corporate sustainability accounting and sustainable growth of listed companies in Nigeria. This study was carried out of the failure of many companies on sustainability matters and the unended debates that sustainability matters are costs burden to corporate sustainable growth in Nigeria. The objectives of the study were to examine the influence of human sustainability, social sustainability, economic sustainability and environmental sustainability on sustainable growth of listed companies in Nigeria. Five hypotheses were formulated in line with objectives of the study. Ex-post facto research design was adopted in the study. The population was made up the one hundred and seventy-six (176) companies from twelve sub-sectors listed firms in the Nigerian Exchange Group (NGX) actively traded stocks on floor of the Nigerian Exchange Group (NGX) as at 2018 financial year to December 31, 2022 financial years. Taro Yamane's sample size statistical formula was used to determine sample size of ninety-two (92) companies while judgement sampling technique was used to select the samples for the study. Data were from secondary sources and were through reviewing and computations of the required data. The data were analysed using descriptive statistics and multiple regression analyses. The results showed that human sustainability, social sustainability, economic sustainability and environmental sustainability all have significant positive influence on sustainable growth of listed companies in Nigeria. It was concluded that corporate sustainability accounting (human sustainability, social sustainability, economic sustainability and environmental sustainability is fundamental key to sustainable growth of listed companies in Nigeria. It was recommended among others that, listed companies in Nigeria should investment more in sustainability matters - human sustainability, social sustainability, economic sustainability and environmental sustainability for significant influence on sustainable growth and investors should consider companies' sustainability evidence before considering their investments.

Keywords: Corporate sustainability accounting, sustainable growth, listed companies, Nigeria.

1. Introduction

The term 'corporate sustainability' surfaces during 1990s and 2000s, which simply means corporate bodies creating a sustainable value for the present and for the future. It is a term used to broadly indicate initiatives and actions aimed at the preservation of a particular resources. Corporate sustainability is an alternative to the traditional growth and profit-maximization model. This boarders on four distinct areas of human sustainability, social sustainability, economic sustainability and environmental sustainability – generally known as the four pillars of sustainability.

The idea is that of meeting the present economic needs without reducing the ability of future generations to meet their own economic needs. This has become a popular approach in the business world's implementation of sustainable development, referred to as corporate sustainable development. Companies now face strategic, financial, and operational overturn of their current business operations in striving towards this green policy initiatives and agreements as well as external stakeholders demanding corporate sustainability practices on one hand as well as the rising internal executive board pressure for profit-maximization issues that will impact firms' sustainable growth in the coming decades.

Sustainability is essential to thrive in the emerging green economy. Transparency in business operations for supply chain integrity, compliance and risk approach, and integration of trustworthy standards into operation procedures are key in preparing for the future ahead. Companies will need to adopt sustainability frameworks to access capital, attract and retain investors and new employee

talent, enter new markets, fund innovation and CSR projects, support R&D costs, and digitise their business for future engagement with customers. Over years, experts in the field of sustainability such as GRI and TÜV SÜD among others have supported companies with sustainability services. These services provide a strong foundation to structuring a company's sustainability efforts, implementing sustainability frameworks, and building more sustainable businesses and credible operations for a successful sustainability accounting and reporting.

Corporate sustainability accounting and reporting has its roots in the traditional accounting practice where management accounting involves internal organisational practices that assist in management of an organisation and financial reporting provides a financial account of organisational performance (Lodhia & Hess 2014). Thus, in line with the traditional accounting practice, sustainability accounting and reporting includes an internal component which requires management of sustainability issues, often referred to as sustainability management, and an external reporting element, referred to as sustainability reporting.

Sustainability accounting is the reporting of non-financial information as a result of an organisations performance. Typically, sustainability accounting focuses on the environmental social and governance (ESG) impacts and performance of a business. The purpose of sustainability accounting is to help generate value in an organisation that is not necessarily directly tied to financial reporting. Sustainability accounting provides a useful tool to identity, evaluate and manage social and environmental risks by identifying resource efficiency and cost savings and link improvements in social and environmental issues with financial opportunities.

Sustainable accounting enhances transparency and accountability providing clear and reliable information about a company's ESG performance allows stakeholders to make informed decisions, fostering trust and strengthening relationships with investors, customers, employees, and the wider community. Through sustainability accounting system, a business can add more to society than just its financial impact such combating environmental issues, having positive social impacts and operating a business with fair governance are concerns that impact everyone globally. Whilst a business accounting for these areas may not directly impact the bottom line, they do impact on whether the business itself operates in an economy that is favourable for it.

Environmentally, sustainable practices can help protect natural resources, mitigate and adapt to climate change and promote biodiversity. Social inclusion and sustainability benefits that result from sustainable development, are directly linked to electrification. Environmental accounting is crucial for organizations to be sustainable and responsible to society. It helps them understand how their actions affect the environment and how much it costs by considering environmental issues in their financial reports and decisions. They become more transparent and accountable.

In order to avoid firms from likely considering the minimum reporting, the Nigerian Stock Exchange (NSE) brought-out sustainable reporting principles in December 2016, seeking to improve corporate reporting after Sustainable Development Disclosure Discussion on 8 June, 2016, with interested parties concerning the sustainability reporting guides. The disclosure pattern, coupled with the factual value system of reporting as well as the commencement of mandatory sustainability accounting and reporting were to take effect from financial year ended December 31, 2018. But the influence of corporate sustainability accounting on sustainable growth of listed companies in Nigeria. Corporate sustainability is a comprehensive approach to business management that works to maximize long-term human resources, economic, social, and environmental value. Sustainability aims to leave systems capable of continued existence.

Statement of the Problem

Discussing corporate sustainability commitments without balancing firms' sustainable growth is problematic. This is because, the risks and pressure face by firms on sustainability matters have cause many firms to fail to keep to their promises and some have becoming unethical, lacking progression and sustainable growth while others have folded up in Nigeria yet solution to corporate sustainable growth from status quo is yet to be determined. Over the last two decades, companies

worldwide have set goal and made pledges to reduce their environmental impacts and becoming more sustainable by maintaining human capital investments and services as well as supporting long -term economic growth and development in their area of operations.

In survey conducted by Bain in 2022, of the 300 sampled multinational companies, only 2% of the companies achieve or exceed their sustainability goals that the companies have originally set while even big companies such as Amazon, Netflix, Exxon Mobil, Samsung, 3M among other have all failed to their sustainability promises and ethics (Marsh, 2023). This means that many companies have fail to keep sustainability promises, as actions speaks louder than words. In today's business world, awareness of human, social, economic and environmental – otherwise known as the four pillars of sustainability impacts of businesses is growing but Nigeria's situation remains unknown. It would be wrong to sustain others while the firms itself not sustainable, because no one can give what they do not have (Nemo dat quod non habet).

In today's the business competitive world, investors are even seeking for businesses that can evidence their corporate sustainability without knowing whether the firms are sustainably growing. Social awareness and fairness are dictating consumer behaviour. Meanwhile, transparency in how organisations are governed is being demanded by employees and customers alike. All these factors have inspired the need for businesses to account and report on their non-financial performance – sustainability accounting. This is where accountants can help. Having a skillset in analysis, reporting and independent advice, prove that accountants are in the perfect position to assist businesses in their sustainable growth and development. Also, there is apparent lack of consensus among researchers as to the effect of sustainability accounting on firms' sustainable growth. This is because previous studies have not presented a definite result about the direction of the outcome of the two constructs nor sustainable growth model. Therefore, this study sought to examine corporate sustainability accounting and sustainable growth of listed companies in Nigeria as well as predict business sustainable growth model.

Objectives of the Study

The main objective of the study was to examine corporate sustainability accounting and sustainable growth of listed companies in Nigeria so as to predict firm's sustainable growth model. Specific objectives were to:

i. Examine the influence of human sustainability on sustainable growth of listed companies in Nigeria.
ii. Analyse how social sustainability influence the sustainable growth of listed companies in Nigeria.
iii. Ascertain how economic sustainability impact the sustainable growth of listed companies in Nigeria.
iv. Evaluate the influence of environmental sustainability on sustainable growth of listed companies in Nigeria.
v. Determine the joined influence human sustainability, social sustainability, economic sustainability and environmental sustainability on sustainable growth of listed companies in Nigeria.

Research Questions

To guide the researchers in addressing the specific objectives, five (5) objective questions were raised:

i. What is the influence of human sustainability on sustainable growth of listed companies in Nigeria?
ii. How does social sustainability influence the sustainable growth of listed companies in Nigeria?
iii. What is the impact of economic sustainability on sustainable growth of listed companies in Nigeria?
iv. How does environmental sustainability influence sustainable growth of listed companies in Nigeria?
v. What is the joined influence of human sustainability, social sustainability, economic sustainability

and environmental sustainability on sustainable growth of listed companies in Nigeria?

Research Hypotheses

The following null hypotheses were framed to guide the research in line with the objectives:

H_{O1}: Human sustainability does not significantly influence sustainable growth of listed companies in Nigeria.

H_{O2}: Social sustainability does not significantly influence the sustainable growth of listed companies in Nigeria.

H_{O3}: There is no significant impact of economic sustainability on sustainable growth of listed companies in Nigeria.

H_{O4}: Environmental sustainability does not significantly influence sustainable growth of listed companies in Nigeria.

H_{O5}: There is no significant joint influence of human sustainability, social sustainability, economic sustainability and environmental sustainability on sustainable growth of listed companies in Nigeria.

2. Literature Review

Conceptual clarification

According to Sustainability Accounting Standards Board, SASB conceptual framework (2017), corporate sustainability refers to corporate activities that maintain or enhance the ability of the company to create value over the long term. Corporate sustainability is the practice of operating a business without impacting the environment negatively. Corporate sustainability accounting is the disclosure and reporting of non-financial information as a result of an organisations performance. Sustainability accounting is often used to generate value creation within an organisation. Sustainability accounting refers to the measurement, management, and reporting of such corporate activities. Sustainability accounting entails systems, methods, and processes of creating sustainability information for transparency, accountability, and decision-making purposes.

This includes the identification of relevant sustainability issues of the company (that is, the pillars of sustainability namely; human, social, environmental and economic), the definition of indicators and measures, data collection, overall performance tracking and measurement, as well as the communication with to internal and external information recipients (Zvezdov & Schaltegger, 2022). Sustainability accounting is subdivision of financial accounting that involves the process of recognizing, measuring, disclosing and presentation of environmental, social, human and economic goals in policies and activities to external stakeholders. This report is always in an integrated form, called sustainability report. Sustainability accounting is the reporting of non-financial information as a result of an organisations performance. Typically, this focuses on the four pillars of business sustainability human, environmental, social and economic as well as its impacts and the performance of the business.

Human sustainability means maintaining human capital. Human sustainability means taking care of people now and in the future. It means making sure people can live healthy, happy lives. Firms need to invest in things like schools, hospitals, and healthy food so people can thrive. They also need to reduce bad things like crime, wars, and overusing resources. If firms work together to help each people in the society, they can have a sustainable world where all people get what they need to live well. Human capital is a private good of individuals, rather than between individuals or societies. The health, education, skills, knowledge, leadership and access to services constitute human capital. Investments in education, health, and nutrition of individuals have become accepted as part of economic development.

As human life-span is relatively short and finite (unlike institutions) human sustainability needs continual maintenance by investments throughout one's lifetime. Promoting maternal health and nutrition, safe birthing and infant and early childhood care fosters the start of human sustainability. Human sustainability needs 2 – 3 decades of investment in education and apprenticeship to realize some of the potential that each individual contains. Adult education and skills acquisition, preventive and curative health care may equal or exceed formal education costs.

Social sustainability: This refers to a business's impact on social systems. Such systems include society, local communities, employees, consumers and other stakeholders. If business activities harm social systems, degrading the wellbeing of future generations, then operations are not socially sustainable. Social Accounting is a process that enables organisations to measure their social and environmental performances against their aims and objectives and assess the true impact of their activities upon their stakeholders. Social sustainability means maintaining social capital. Social capital is investments and services that create the basic framework for society. It lowers the cost of working together and facilitates cooperation: trust lowers transaction costs. Only systematic community participation and strong civil society, including government can achieve this. Cohesion of community for mutual benefit, connectedness between groups of people, reciprocity, tolerance, compassion, patience, forbearance, fellowship, love, commonly accepted standards of honesty, discipline and ethics.

Commonly shared rules, laws, and information (libraries, film, and diskettes) promote social sustainability. Shared values constitute the part of social capital least subject to rigorous measurement, but essential for social sustainability. Social capital is undercapitalized, hence the high levels of violence and mistrust. Social (sometimes called moral) capital requires maintenance and replenishment by shared values and equal rights, and by community, religious and cultural interactions. Without such care it depreciates as surely as does physical capital. The creation and maintenance of social capital, as needed for social sustainability, is not yet adequately recognized.

Western-style capitalism can weaken social capital to the extent it promotes competition and individualism over cooperation and community. Violence is a massive social cost incurred in some societies because of inadequate investment in social capital. Violence and social breakdown can be the most severe constraint to sustainability. CSR is a business commitment that contributes to corporate social sustainability. Corporate social sustainability works with employees, their families, local communities and society at large to improve human-life quality, the environment and the economy in the long-term.

Economic sustainability refers to practices that support long-term economic growth without negatively impacting social, environmental, and cultural aspects of the community. Economic sustainability refers to practices designed to create the long-term economic development of a company or nation while also managing the environmental, social, and cultural aspects of its activities. Economic sustainability describes actions that support long-term economic growth of a company or country while simultaneously preserving the environment, society, and culture. It is about balancing economic growth and generating profit with the impact on the environment and people. Economic capital should be maintained.

The widely accepted definition of economic sustainability is maintenance of capital, or keeping capital intact. Economics values things in money terms, and has major problems valuing NC, intangible, intergenerational, and especially common access resources, such as air. Because people and irreversible are at stake, economic policy needs to use anticipation and the precautionary principle routinely, and should err on the side of caution in the face of uncertainty and risk. The main goal of economic sustainability is to create a balance between economic growth and the development of positive change for the environment and humanity. Economic sustainability involves the use of available resources in a way that is both efficient and responsible, and ensures all financial obligations over time can be met. The following are examples of general economic sustainability factors: Return on investment, Local economy and Market capacity.

Environmental sustainability is the ability to maintain an ecological balance and conserve natural resources to support the wellbeing of future generations. Social needs - the availability of basic needs, products, and services for present and future generations. Support local employment,

fair trade and environmental attributes of raw material; regenerative capacity - protect the depletion of natural resources and keep the harvest rate of renewable resources within the capacity of regeneration and reuse, recycling - support the reuse, recycling practices to reduce waste, emissions, and cost and improve product efficiency (Khan, 2021).

Sustainable Growth

Sustainable growth means continuous increase in the revenue, size of the entity, market share, and profitability over time and ability to keep the business in operations in the next foreseeable years. Sustainable growth means providing more productive and lucrative possibilities for future generations. Companies earn more money and boost your profit by making the business more sustainable by reducing business costs, more innovative strategies, an improved reputation, and more new customers who value sustainability all work to increase the amount of money sustainable businesses earn.

Sustainable growth rate is the rate at which your company can grow without requiring more funding or presenting operational hurdles. The sustainable growth rate for your business can help firms plan for the future and reduce the danger of becoming over-leveraged. Sustainable growth rate is the ceiling of sales growth, the breakeven point is the floor. The sustainable growth rate help firms determine how to keep the company functioning smoothly while growing sale revenue and identifies when the firm may need an infusion of cash. In order to define the sustainable growth rate for a particular business, shareholders must first identify the maximum growth rate their business can achieve without having to increase financial leverage or debt financing (Carlson, 2022).

Maximum business growth can be achieved given the company's current profitability, asset utilization, dividend payout, and debt ratios. Businesses need to address two primary issues: growth capability and growth strategy. Growth capability refers to the firm's infrastructure: computers, office space, and personnel. Firms need to analyse whether there is room to grow sale revenue without adding additional infrastructure. Growth strategy refers to the comprehensiveness of the business plan. Unless you have both of these goals understood and documented, long-term growth will be elusive.

Sustainable Growth Model is the model that predict business sustainable growth over a specific period of time considering the business causative factors influencing such business. Several options as been assumed to include; sell equity in order to raise new money, raise more debt financing, reduce dividend payments to shareholders, increase the profit margin, decrease the total asset turnover among others. But here are some challenges that also go along with each option include: Selling new equity dilutes the owner's shares; raising more debt pushes the firm nearer to bankruptcy; reducing dividends always makes shareholders unhappy; increasing the profit and decreasing asset turnover are long-term strategies that can take months or even years to overcome. Big firms often have sustainable growth rates somewhat less than their maximum rate of 20% as the firms distribute the excess cash to shareholders or plough back into investments.

The retention ratio is the flip side of the dividend payout ratio. If the firm pays out 20% of its earnings in dividends, then its retention ratio is 80%. The Return on Equity (ROE) is what the firm earns on the shareholder's investment in the firm. Multiply the two together, and the firm will have the sustainable growth rate of 16%. (Udo, 2023).

Theoretical Framework

Resource-Dependence Theory (RDT): Jeffrey Pfeiffer and Gerald R. Salancik (1978) publicized RDT. RDT is underpinned by the idea that the corporate's resource is paramount to its success and that access and control over resources is a basis of power. This theory assumed that firms and even nations are dependent on resources provided by others in order to sustain growth, as well as other organisations that may be dependent on them. The theory is important to this study because it helps to measure a corporate intellectual capital and the ability to harness and exploit the human capital and other resources as well as rewards faster, effectively and efficiently than other firms for a fundamental success.

The theory generally suggests the exploitation of resources of a country is, at the very least an important first step in its organisational development and growth (Barbier, 2019). Nigeria is blessed with blessed with huge potential human capital and natural resources. There is a clarion call for economic development and growth in Nigeria. Consequently, organizations structure their relationships with other organizations, either formally or semi formally, so as to reduce uncertainty and dependency on other organizations, such as suppliers consequently, a rational organization seeks to secure significant and limited resources, particularly in competitive environments. Since closer relations with suppliers establishes greater interdependence (Pfeffer & Salancik, 1978), resource dependence theory suggests that resource exchange between partners should be used as a mechanism to control environmental risk.

Stakeholder Theory

Stakeholder theory was developed by Freeman R. in 1984. Stakeholder theory is of opinion that, organisation would try to satisfy the concerns and aspirations of powerful interested party, and some of the responses will be in the form of strategic reporting. The theory implies that disclosures of sustainability information by organisation are as a result of the pressure from interested parties. Stakeholders' theory offers an in-depth understanding of the factors that encourage decision-making and performances in relation to the social and environmental disclosure practices of business organisations. Businesses are thus responsible to these stakeholders and depend upon their continued support to sustain a successful operating environment. Stakeholder theory focuses upon defining factors encouraging the continued existence of corporations. The theory would ensure that the firms consider all interest groups in their decision making the sustainability matter. Stakeholder theory is also to help to postulate the influence of sustainability accounting on organisational sustainable growth of the listed firms in the manufacturing sector in Nigeria.

Empirical Review

Allen Institute for Artificial Intelligence (2017) examined environmental accounting and sustainable development, a study of Niger Delta area. This work was borne out of the expectation of the gap that exists between the companies operating in Niger Delta and their host communities; years of neglect, environmental degradation, pollution and massive outcry for redress which resulted to arm struggle with attendant consequences. The objective of this study is to determine how environmental accounting has influenced the sustainable development in Nigeria, particularly Niger Delta area. Two (2) hypotheses were formulated and tested as an off shoot of the research questions. Environmental Accounting as Independent variable was measured by Sustainable development variables such as infrastructural amenities, poverty eradication, health care delivery, natural disaster and pollution. Quasi experimental research design was employed in the research. Data were gathered using questionnaires which were distributed to garner opinion from accountants, auditors, environmentalist, and community leaders in six states in Niger Delta area. Of 400 questionnaires distributed 388 were retrieved out of which 8 were invalid. Chi-square, Spearman's coefficient correlation among others under SPSS Version 23 package was used to analyze the data and test the hypotheses. The result showed that there is relationship between Environmental accounting, Sustainable development and Economic Stability in Nigeria. We conclude that Environmental accounting is imperative for sustainable development and therefore suggests that all companies operating in Niger Delta area should imbibe environmental accounting as part of their operational standard.

Ogbonna *et al.* (2020) examined the relationship between environmental accounting and sustainability development in Nigeria from 2007 - 2016. Oil spillage cost, oil drilling waste disposal cost and degradation cost were the proxies of environmental accounting while human development index and human poverty index were sustainability development proxies. The researchers adopted correlational research design for the study. The study used secondary data obtained from Nigeria National Petroleum Corporation annual reports, CBN Statistical Bulletin, National Bureau of Statis-

tic Bulletin and United Nation Development Programs (UNDP) Report 2016. The research Hypotheses test and other data were analyzed by Pearson Product Moment Correlation and simple linear regression tools with the aid of SPSS version 22. The outcomes of this study depicted that environmental accounting variables (OSC and ODWDC) has no significant relationship with sustainability development in Nigeria in the period of this study. However, Degradation cost revealed significant relationship with both human development index and human poverty index. Thus, the study concluded that environmental accounting has not fully influenced sustainability development in Nigeria in the period of this study. It is recommended that the National Assembly should immediately pass a Degradation Protection Law mandating all Oil multinational companies operating in the Niger-Delta region to observe and comply strictly with the highest environmental protection standards in line with global best practice to prevent degradation.

Nze *et al.* (2016) examined the effect of social sustainability on earnings of quoted firms in Nigeria. Data for the study were secondary and were sourced from firms' financial statements and the fact book of Nigerian Stock Exchange. The two firms studied were chosen from the oil and gas industry in Nigeria using the simple random sampling technique. The study covered a ten year period. Data were analysed using the ordinary regression analysis. The results show that social sustainability has a positive and significant effect on earnings of firms studied.

Yaakoo *et al*. (2022) investigated empirically the effect of sustainability accounting practices on the market based performance of quoted manufacturing companies in Nigeria. The data for the study was collected from the Nigerian Stock Exchange, 2012 to 2019 using the principle of Apply and Explain guiding sustainability reporting of the Nigerian Code of Corporate Governance, 2018 and was analyzed using regression for the panel data. The study found that social, environmental and economic accountability have a positive but insignificant effect on the earnings per share. The study concluded that there is the tendency that if the tenets of sustainability accounting is dutifully followed, especially now that there is global concern about the impact of human activities on the environment and the future generation, there will be improvement in the market performance of these firms particularly in the long run. Therefore, it is recommended that manufacturing companies should contribute to the overall wellbeing of the people, planet, economy and business in a sustainable manner.

Abughniem *et al.* (2019) investigated the impact of sustainability reporting on firm performance. The sample included 186 firms from Amman Stock Exchange in Jordan, for the period of 2014 - 2017. To achieve this goal, the study measures firm performance using Return on Assets and Tobin's Q. By using panel random-effect regression, the study found the sustainability reporting is significantly related to performance. Overall, the results evidence the significant and negative influence from environmental responsibility, responsibility of human resource on firms' size and return on assets. Whereas the influence of sustainability reporting on Tobin's Q is significantly positive but the influence from environmental responsibility, responsibility of human resource and size is significantly negative. More specifically, for the industrial sector, environmental responsibility, responsibility of human resource and size are causing a decline in return on assets, for Tobin's Q under financial sector, negative influence by social responsibility, and size is observed.

Ugwu *et al.* (2022) evaluated the effect of human sustainability on the performance of manufacturing firms in Enugu state. The specific objectives were to: evaluate the effect of investment in health on the quality of services of the selected food, beverage and tobacco manufacturing firms in Enugu state and examine the effect of investment in education on the profitability of the selected food, beverage and tobacco manufacturing firms in Enugu State. The study used the survey approach. The primary sources were personal interview and the administration of questionnaire. A population of 4250 and 352 staff of sample size was used using Freund and William formula. 322 staff returned the questionnaire and accurately filled. That gave 91 percent response rate. The validity of the instrument was tested using content analysis and the result was good. The hypotheses were analyzed using Regression. The findings indicated that Investment in health had positive effect on the quality of service of the selected food, beverage and tobacco manufacturing firms in Enugu and investment in Education had effect on the profitability of selected food, beverage and tobacco manufacturing firms in Enugu State. The study concluded that investment in health and education had positive effect on the quality service and profitability of the selected food, beverage and tobacco manufacturing firms in Enugu state. The study recommended among others that the organizations should include investment in health for their workers to promote safety and wellbeing of the entire organization and its activities.

Camelia *et al.* (2020) examined investigated whether there is a positive or negative linear relationship between sustainability reporting, inadequate management of economic and governance (ESG) factors, and corporate performance and sustainable growth. The financial and market performances of firms are both analyzed in this study. Sustainable growth at the company level is introduced as a dimension that depends on sustainability reporting and the management of ESG factors. In order to achieve the main objective of the paper, the methodology here focused on the construction of multifactorial linear regressions, in which the dependent variables are measurements of financial and market performance and assessed corporate sustainable growth. The independent variables of these regressions are the sustainability metrics and the control variables included in the models of economic, social, and governance factors. This work examined the effects of ESG risk management, not only on performance, but also on corporate sustainable growth. Results showed that economic, social, and governance performance influence corporate performance and sustainable growth.

Nyameh (2023) examined the impact of sustainable human resource management and organizational performance. The paper has also proposed a model for Sustainable HRM. This study adopted exploratory research design. Data were obtained specifically from reviewing of the literature, journal articles, including textbooks, periodicals and a range of relevant secondary sources, which were combined with data from previous official studies on subject. Results revealed that human responsibility sustainability influence on sustainable organisational performance and growth include profit, market value, market share, increase in sales, productivity, product/service, quality customer, satisfaction, development of products/service and future investments. It was concluded that organizational performance for the future growth depends on the practice and application of the ideas in sustainable HRM.

Okechukwu and Ugwu (2023) examined the effect of corporate sustainability on firms' performance in Nigeria covering the period ten years ranging from 2011 to 2020. It was necessitated by the cost implication of Corporate Sustainability on Firms' performance in Nigeria. Specifically, the objectives of the study are to examine the effect of economic, environmental and social sustainability on the profit for the year of the selected firms in Nigeria. This study adopts ex-post facto research design as the researcher made use of past data in the form of secondary data to investigate the effect of corporate sustainability on performance of firms. Four (4) major high sustainability firms were purposively selected based on the complete availability of data for the period under review and their greatest effect on environment in Nigeria namely; Julius Berger Nigeria Plc., Conoil Plc., Nigeria Breweries Plc. and Dangote Cement Plc. The study used secondary data extracted from the annual reports of the selected firms. Panel data regression method was used to estimate the parameters of the model. The major findings of the study were that economic, environmental and social sustainability have probability values of 0.184406, -0.124495 and 0.064896 respectively which implies that they have non-significant impact on profit for the year of selected firms in Nigeria. It is therefore the recommendation of this study that firms should be intentional and strategic in incorporating sustainability measures in their business activities.

3. Methodology

Research Design *Ex-post facto* research design was used in the research. The design was considered best for the study as it allows for the use of existing data that the researcher cannot be manipulated.

Population The population was the one hundred and seventy-six (176) companies from twelve subsectors listed firms in the Nigerian Security Exchange (NSE) now the Nigerian Exchange Group (NGX) actively traded stocks on floor of the Nigerian Exchange Group (NGX) as at 2018 financial

year to December 31, 2022 financial year.

Sample Size and Sampling Technique Taro Yamane's sample size statistical formula was used to determine sample size of ninety-two (92) companies namely; Alternative Security Market (AseM, 9 companies), agriculture (5 companies), Conglomerates (6 companies), Construction/ Real Estate (9 companies), consumer goods (9 companies), Financial Services (9 companies), Health (8 companies), Information Communications Technology (6 companies), Industrial Goods (9 companies), Oil and Gas (9 companies), natural resources (4 companies) and Services (9 companies) at error term of 7.2% . These companies were fully traded in the floor of NGX as at January 01, 2018, which means that their 2018 – 2022 annual reports were accessible and available. The choice of the period was due mandatory reporting by FRCN on sustainability matters from 2018. Purposive sampling technique was adopted in the study on the basis of the easiness with which the data can be collected from the companies' websites.

Source and Nature of Data Secondary sources of data were used consisted of the annual reports and accounts of the selected companies and formed the main sources of data of this study. Specifically, NGX Factbook, Nigeria Data Protection Commission (NDPC) and Compliance Reports were also utilized. The data extracted were financial and non-financial in nature and were available both in soft copies and hard copies.

Method of Data Collection The data were pooled from the ninety-two (92) listed companies of the twelve sub-sectors used. Both online and hard copies of annual reports and accounts of the sampled companies were collected from Port Harcourt Branches of Nigerian Exchange Group (NGX) for the period, 2018 to 2022. Annual reports of the selected companies were extracted, examined and computed for the needed data. Secondary data were also obtained through reviewing relevant e-books, journals among others.

Theoretical and* Empirical *Specification of Model The theoretical and empirical specification of model, where the independent variables, sustainability accounting proxied by human sustainability, social sustainability, economic sustainability as well as environmental sustainability and dependent variable, sustainability growth measured by sustainable growth rate (SGR). A multiple linear regression model was fitted to determine how dependent variable is explained by the independent variables. In order to test the research hypotheses, multiple regression model (functional form and econometrical) was used as

$SGR_{it} = f(CSA_{it})$ **Functional Relationship Equation** 1

$Y_{it} = \alpha_0 + \alpha_1 X_{1it} + \alpha_2 X_{2it} + \alpha_3 X_{3it} + \alpha_4 X_{4it} + \varepsilon_{it}$ **Econometric Equation** 2

$SGR_{it} = \alpha_0 + \alpha_1 HS_{it} + \alpha_2 SS_{it} + \alpha_3 ESit + \alpha_4 EvS_{it} + \varepsilon_{it}$ **Model Equation** 3

Where; **SG = Sustainable Growth**

HS = Human Sustainability (X_1)

SS = Social Sustainability (X_2)

ES = Economic Sustainability (X_3)

EvS = Environmental Sustainability (X_4)

$\alpha_1, \alpha_2, \alpha_3, \alpha_4$ = estimated coefficients of the independent variables

α_0 = constant term; ε = error term; i,t = company i in year t.

Description and Measurement of Variables

Variable	Description	Measurement	Apriori Sign
Sustainable Growth	Sustainable growth means continuous increase in the revenue, size of the entity, market share, and profitability.	**SG = Retention Ratio x Return on Equity.** where: Retention Ratio = 1 - dividend payout ratio; and Return on Equity = Profit After Interest, Tax and Preference Dividend/Total Equity	
Economic Sustainability	This refers to practices that support long-term economic growth without negatively impacting social, environmental, and cultural aspects of the community.	Company's Sales Revenue = Product Price x Quantity (in Log10)	+
Social Sustainability	It refers to sets of actions that appear to support some social good, beyond the interests of the firm owners and which are required by law in Nigeria.	CSR Expenditure = 2% of Company's PBT (in log10)	+
Environmental Sustainability	This is the practice and sustainability costs to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future. It includes all the incurred by companies, directly or through third parties, to prevent, reduce or repair damage to the environment arising from their operating activities.	Company's Environmental costs = environmental protection, preservation and restoration costs (in log10)	+
Human Sustainability	It is expenditure in human resources for higher productivity.	This is measured by costs of staff training and development, staff wages and salaries, contributory pension plan and directors' emoluments (in log10)	+

Data Analysis Technique Descriptive and inferential statistics were used to analyse the data. In order to determine human sustainability, social sustainability, economic sustainability as well as environmental sustainability, the descriptive statistics – mean and standard deviation were deployed while multiple regression technique was adopted to examine the influence of independent variables, human sustainability, social sustainability, economic sustainability as well as environmental sustainability on organisational sustainable growth. This was carried out with the help of Statistical Package for Social Sciences (SPSS) Version 22.0 at 5% level of significance in order to reach valid conclusions for the study.

4. Results and Discussions

Table 1: Descriptive Statistics for the Research Variables

	n	Min.	Max.	Mean	Std. Dev.	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
SS(₦'m)	460	4.05	114.70	23.40	17.11	2.23	0.20	7.21	0.39
HS (₦'m)	460	0.01	4.55	0.95	0.82	1.90	0.20	3.73	0.39
EvS (₦'m)	460	0.12	2.51	0.40	0.40	2.72	0.20	9.13	0.39
ES(₦'m)	460	0.22	3.81	0.59	0.65	2.28	0.20	6.16	0.39
SGR	460	-39.17	13.31	0.46	3.92	-6.23	0.20	69.97	0.39

***Source:* Researchers' Computation (2023) Using SPSS.**

Table 1 is presentation of the descriptive statistics for the research variables. Result reveals mean values of 23.40, 0.95, 0.40, 0.59 and 0.46 for SS, HS, EvS, ES and SGR with standard deviations of 17.11, 0.82, 0.40, 0.65 and 3.92 respectively. Based on the mean result, it can be deduced that SS incurred by the selected listed companies was higher than HS, EvS, ES and SGR. Result also yielded skewness of 2.23 for SS, 1.90 for HS, 2.72 for EvS, 2.28 for ES and -6.23 for SGR. The skewness indicates that SS, HS, EvS and ES were skewed to the right while SGR was skewed to the left. SS, HS, EvS and ES being skewed to the right indicates that these variables increased more than it decreased within the period of study while SGR having a negative skewness implies that SGR decreased more than it increased within the period under study. The kurtosis of 7.21, 3.73, 9.13, 6.16 and 69.97 were obtained for SS, HS, EvS, ES and SGR respectively indicating that the kurtosis of these variables were higher than the kurtosis of the normal distribution. This is an indication that the distribution of these variables is leptokurtic (kurtosis higher than that of the normal distribution). The Shapiro-Wilks test was used to examine the normality of these variables and the results obtained are presented in Table 2.

Table 2: Summary of Normality Test using Shapiro-Wilk test for the Research Variables

Variables	Shapiro-Wilk		
	Statistic	df	P-value
SS	0.995	460	0.881
HS	0.603	460	0.000
EvS	0.671	460	0.000
ES	0.760	460	0.000
SGR	0.366	460	0.000

Source: Authors' computations (2023) using SPSS version 22.0.

Table 2 is the presentation of the summary of the results of the normality of the research variables using Shapiro-Wilk test. Result shows p-values of 0.881 for SS (p-value >0.05), 0.0000 for HS (p-value <0.05), 0.0000 for EvS (p-value <0.05), 0.0000 for ES (p-value <0.05) and 0.0000 for SGR (p -value <0.05). The result shows that the probability value obtained for SWS was higher than 0.05 meaning SS follows normal distribution while other variables HS, EvS, ES and SGR gave p-values less than 0.05 indicating that the distribution of the data obtained from these variables are not normally distributed. The summary of the multiple regression models showing the influence of corporate sustainability accounting on listed companies' sustainable growth as presented in Table 3.

Table 3: Regression summary showing the influence of corporate sustainability accounting (CSA) on sustainable growth of listed companies in Nigeria

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.799	0.558	0.541	3.1497525	1.918

Source: Authors' computations (2023).

Table 3 is the presentation of the summary result of the influence of corporate sustainability accounting on listed companies' sustainable growth in Nigeria. Result shows multiple correlation of 0.799 was obtained, which means that 79.9% was the overall contribution of the model independent

variables to the dependent variable. Results also show R-Square (R^2) of 0.558 which means that 55.8% of the variation in the companies' sustainable growth (SGR) of listed of the listed companies in Nigeria was accounted for by corporate sustainability accounting as measured by SS, HS, EvS, ES and SGR. To examine whether there is presence of autocorrelation, the Durbin Watson test was used and the result yielded Durbin Watson statistic of 1. 918 was obtained which is greater than 1 and less than 3.00 meaning that there is no evidence of autocorrelation. Result of Analysis of Variance (ANOVA) showing whether there is a regression relationship between the dependent variable (Sustainable growth as measured by SGR) and corporate sustainability accounting (SS, HS, EvS, ES and SGR) is presented in Table 4.

Table 4: ANOVA result summary of SGR, SS, HS, EvS, and ES of the selected listed companies in Nigeria

Model		Sum of Squares	df	Mean Square	F-calc.	F-crit.	p-calc.
	Regression	841.285	4	410.321	47.802	2.391	0.000
	Residual	1506.513	455	20.111			
	Total	2347.798	459				

Source: Researchers' Computations (2023) Using SPSS.

Table 4 is the ANOVA result summary showing the impact of corporate sustainability accounting and financial performance of listed deposit money banks in Nigeria. From Table 4.5, the F-calculated of 20.802 was obtained with P-value of 0.000 as against the F-critical of 2.391 at 0.05 level of significance. Result shows that the F-calculated (47.802) is greater than F- critical (2.391), which means that there is a significant regression relationship between the dependent variable (Sustainable growth as measured by SGR)) and the independent variables (corporate sustainability accounting - SS, HS, EvS and ES). This result also indicates that SS, HS, EvS and ES jointly accounted for significant variation in sustainable growth of listed companies and therefore can be used as predictors of sustainable growth of the listed companies in Nigeria using multiple linear regression. Parameter estimates of the multiple regression models as well as the significance of each of the parameter in the multiple regression models is as presented in Table 5.

Table 5: Coefficients of the regression SGR with SS, HS, EvS and ES of listed companies in Nigeria

Model	Unstandardized Coefficients		Standardized Coefficients	t-calc.	p-value	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	0.519	6.593		0.079	0.937		
SS	2.496	0.938	0.181	2.661	0.009*	0.929	1.077
HS	1.499	0.353	0.333	4.244	0.000*	0.699	1.430
EvS	0.662	0.280	0.180	2.362	0.019*	0.740	1.351
ES	1.068	0.355	0.256	3.009	0.003*	0.596	1.679

*Significant at 5% (P<0.05). t-cri. = 1.97, ***Source: Author s' computations (2023) using SPSS.***

In Table 5, the regression coefficients for the model parameters were computed showing the influence of corporate sustainability accounting on sustainable growth of listed companies in Nigeria. The results show that SS – Social sustainability (β = 0.181, Std Error = 0.938, t-calc = 2.661 and p-value = 0.009, HS – Human Sustainability (β = 0.333, Std Error = 0.353, t-calc = 4.244 and p-value = 0.000), EvS - Environmental Sustainability (β = 0.180, Std Error = 0.280, t-calc = 2.362 and p-value = 0.019) and ES - Economic Sustainability (β = 0.256, Std Error = 0.355, t-calc = 3.009, and p -value = 0.003) all have positive significant influence on sustainable growth (SGR). This implies that as SS, HS, EvS and ES increase, SGR increases and vice versa.

The result also reveals standardised beta coefficients of 0.181, for SS, 0.333 for HS, 0.180 for EvS and 0.256 for ES. These imply that if other variables are held constant, for every ₦1 increase in SS, HS, EvS and ES, the sustainable growth (SG) of the listed companies in Nigeria will increase by ₦0.181 ₦0.333, ₦0.180 and ₦0.256 respectively. Result in Table 4.5 reveals tolerance of 0.929, 0.699, 0.740 and 0.596 for SS, HS, EvS and ES and Variance Inflation Factor (VIF) of 1.077, 1.430, 1.351 and 1.679 respectively as a check for the possible presence of multicollinearity. The tolerances were all greater than 0.1 while VIFs were all less than 10 indicating that there is no evidence of multicollinearity.

In summary, the predicted model therefore is:

$$SG_{it} = ₦0.519 - ₦0.181SS + ₦0.333HS + ₦0.180EvS + ₦0.256ES + \varepsilon_{it}$$

Discussions of Findings

The test of hypothesis reveal that Social Sustainability (β = 0.181, S E = 0.938, t-calc. = 2.661, P-calc = 0.009, P-value<0.05) has significant positive influence on the sustainable growth (SG) of listed companies in Nigeria. Result also reveals standardised beta coefficient of 0.181 which implies that if other variables are held constant, for every ₦1 increase in Social Sustainability, the sustainable growth (SG) of listed companies in Nigeria will increase by ₦0.181. Result also reveals that the absolute value of the t-calculated (2.661) is greater than the t-critical (1.98) at the 0.05 level of significance. The null hypothesis is rejected which means that Social Sustainability significantly sustainable growth (SG) of listed companies in Nigeria will increase. Therefore, Social Sustainability significantly influence on the sustainable growth of listed companies in Nigeria. This is in line with the findings of Nze *et al.* (2016). This might be due to the ability of Social Sustainability to unlock new markets, helping to retain and attracting business partners as well as projecting the companies as socially friendly.

Test of hypothesis also reveals that Human Sustainability (β = 0.333, S E = 0.353, t-calc. = 4.244, P-calc = 0.000, P-value<0.05) has positive influence on sustainable growth of listed companies in Nigeria. Result also shows standardized beta coefficient of 0.333 which implies that if other variables are held constant, for every ₦1 increase in Human Sustainability, the sustainable growth of listed companies in Nigeria will increase by ₦0.333. Result also reveals t-calculated of 4.244 and t-critical of 1.98 at the 0.05 level of significance. The t-calculated (4.244) is greater than the t-critical (1.98) at the 0.05 level of significance. The null hypothesis is rejected which means that there is a significant influence of Human Sustainability on sustainable growth of listed companies in Nigeria. The values of the standardised beta (0.333) as well as the t-calculated were positive meaning that Human Sustainability (HS) has significant positive influence sustainable growth of listed companies in Nigeria. This is in line with the findings of Ugwu *et al.* (2022).

In addition, test of hypothesis reveals that Environmental Sustainability (β = 0.180, S E = 0.280, t-calc. = 2.362, P-calc = 0.019, P-value<0.05) has positive impact on sustainable growth of listed companies in Nigeria. Result also shows standardised beta coefficient of 0.180 which implies that if other variables are held constant, for every ₦1 increase in Environmental Sustainability, the sustainable growth of listed companies in Nigeria will increase by ₦0.180. Result also reveals t-calculated of 2.362 and t-critical of 1.98 at the 0.05 level of significance. The t-calculated (2.362) is greater than the t-critical (1.98) at the 0.05 level of significance. The null hypothesis is rejected which means that there is a significant impact of Environmental Sustainability on sustainable growth of listed companies in Nigeria. From the results, it can be deduced that the values of the standardised beta (0.181) as well as the t-calculated (2.362) were positive meaning that Environmental Sustainability has significant positive impact on sustainable growth of listed companies in Nigeria. This result implies that a significant increase in Environmental Sustainability will result to significant increase in sustainable growth of listed companies in Nigeria. This result obtained is in support of the views of Ogbonna *et al.* (2020) and Allen Institute for Artificial Intelligence (2017).

Test of hypothesis further reveal that Economic Sustainability (β = 0.256, S E = 0.355, t-calc. = 3.009, P-calc = 0.003, P-value<0.05) has significant positive influence on sustainable growth of listed companies in Nigeria. Result also shows standardised beta coefficient of 0.256 which implies that if other variables are held constant, for every ₦1 increase in economic sustainability, the sustainable growth of listed companies in Nigeria will increase by 0.256. Result also reveals t-calculated of 3.009 and t-critical of 1.98 at the 0.05 level of significance. The t-calculated (3.009) is greater than the t-critical (1.98) at the 0.05 level of significance. The null hypothesis is rejected which means that there is a significant influence of economic sustainability on sustainable growth of listed companies in Nigeria. From the results, it can be deduced that the values of the standardized beta (0.256) as well as the t-calculated (3.009) were positive meaning that economic sustainability has significant positive influence on sustainable growth of listed companies in Nigeria. This result implies that a significant increase in the amount spent on economic sustainability, will result to significant increase in sustainable growth of listed companies in Nigeria. This is collaboration with the findings of Okechukwu and Ugwu (2023).

The ANOVA result summary showing the joint influence of human sustainability, social sustainability, economic sustainability and environmental sustainability on sustainable growth of listed companies in Nigeria. Results as presented in Table 4.5 reveals F-calculated of 47.802 and F-critical of 2.391 at 0.05 level of significance. The F-calculated (47.802) is greater than F- critical (2.391) which means that there is significant joint influence of human sustainability, social sustainability, economic sustainability and environmental sustainability on sustainable growth of listed companies in Nigeria. This agrees with the opinions of Okechukwu and Ugwu (2023) and Camelia et al. (2020).

5. Conclusion and Recommendations

From the findings, it was drawn that human sustainability, social sustainability, economic sustainability and environmental sustainability significantly influence sustainable growth of listed companies in Nigeria. Thus, it was concluded in the study that, corporate sustainability accounting (human sustainability, social sustainability, economic sustainability and environmental sustainability) is key for to corporate sustainable growth for listed companies in Nigeria.

Therefore, the company's Sustainable Growth Model is predicted as:

$$SG_{it} = ₦0.519 - ₦0.181SS + ₦0.333HS + ₦0.180EvS + ₦0.256ES.$$

It was recommended among others that:

- Listed companies in Nigeria should investment more in sustainability matters - human sustainability, social sustainability, economic sustainability and environmental sustainability for significant influence on sustainable growth;
- Investors should consider companies' sustainability evidence before considering investment for their investment to be sustainable; and
- Sustainability reports and covering the four pillars of corporate human sustainability, social sustainability, economic sustainability and environmental sustainability should be mandatory annual reports for regulators and failure should be stringently punish while names published in national dailies.

References

Al-Qudah, L. A. (2023) The role of social responsibility accounting in mitigating the economic impacts of the COVID-19 pandemic in Jordan. *Cogent Economics and Finance*, 11, 1 – 29.

Abughniem, M. S., Al Aishat, M. H. & Hamdan, A. M. (2019). Corporate sustainability as an antecedent to the financial performance: An empirical study. *Polish Journal of Management Studies,* 20(2), 35 – 44.

Allen Institute for Artificial Intelligence (2017). *Environmental Accounting and Sustainable Development: A Study of Niger Delta Area of Nigeria*. Seattle, Washington United States: Semantic School Publications, 1-7.

Barbier, E. B. (2019). Does natural resource dependence hinder economic development? *National Resources and Economic Development. Cambridge University Press*, 107 – 158.

Carlson, R. (2022). *Sustainable Growth for Business: Accounting tools and sustainable growth rate.* The Balance Money Publications, 1 – 7.

Daly, H. E. (1992). Allocation, distribution and scale: Towards an economics which is efficient, just and sustainable. *Ecological Economics*, 6(3), 185 – 193.

Daly, H. E. (1996) *Beyond Growth: The Economics of Sustainable Development*. Beacon Press.

International Centre for Trade and Sustainable Development, ICTSD (2022). *How Can the Company Increase Its Sustainable Growth Rate*. Swiss: ICTSD Publications, 1 – 36.

Khan, N. H. (2021). Principles of environmental sustainability. Ecodesigning for ecological sustainability. *Frontiers in Plant-Soil Interaction*, 4 – 12.

Lodhia, S., & Hess, N (2014). Sustainability accounting and reporting in the mining industry: Current literature and directions for future research. *Journal of Cleaner Production, 1*(2), 1 -7

Marsh, J. (2023). Business unusual: Five greener companies and ten companies failing to their sustainability promises. *The Environmental Magazine,* 1 – 5.

Nyameh, J. (2023). Impact of sustainable human resource management and organizational performance. *International Journal of Asian Social Science*, 3(6), 1287 – 1292.

Nze, D. O., Okoh., J. & Ojeogwu, I. C. (2016). Effect of corporate social responsibility on earnings of quoted firms in Nigeria. *ESUT Journal of Accountancy,* 1, 260 – 267.

Ogbonna, G. N., Onuoha, T. E., Igwe, J. C. & Ojeaburu, F. (2020). Environmental accounting and sustainability development in Nigeria. *West African Journal of Business and Management Sciences,* 9 (4), 62 - 89.

Okechukwu T.I. & Ugwu J.I. (2023). Effect of corporate sustainability on firms' performance in Nigeria (2011 – 2020). *African Journal of Accounting and Financial Research,* 6(2), 92 - 111.

Perrini, F., & Tencati, A. (2022). Sustainability and stakeholder management: the need for new corporate performance evaluation and reporting systems. *Business Strategy and the Environment*. 15 (5), 296 – 308. doi:10.1002/bse.538.

Pfeffer, J. & Salancik, G. R. (1978). *The External Control of Organizations: A Resource Dependence Perspective*. New York: Harper & Row.

Sustainability Accounting Standards Board, SASB (2017*). SASB Conceptual Framework*. *Sustainability Accounting Standards Board Publications,* San Francisco CA 94111.

Tanwar, J., & Rao, N. (2023). impact of social responsibility disclosure on the integration of green accounting and corporate governance on highly polluted industries in India. *International Journal of Accounting and Finance Review,* 14(2), 13 - 24.

Ugwu, F. I., Ebeke, O. I. & Igah, C. O. (2022). Effect of human sustainability on the performance of manufacturing firms in Enugu State. *International Journal of Advanced Economics and Sustainable Development,* 2 (1), 1 – 14.

Yaakoo, D. P., Afeez, O. O. & Leelee, G. B. (2022). Sustainability accounting and market based performance: An empirical analysis of quoted manufacturing companies in Nigeria. *International Journal of Innovative Environmental Studies Research,* 10(1), 48 - 62.

Zvezdov, D. & Schaltegger, S. (2022). Sustainability accounting. *Encyclopedia of Corporate Social Responsibility*, 2363 – 2370.

Strategies for Enhancing Financial Performance: A Focus on Accounting Control of Nigerian Businesses

WOFURU-NYENKE, Oroma King

Department of Accountancy

Faculty of Management Sciences

Rivers State University, Nkpolu-Oroworukwo. Port Harcourt, Nigeria

wofuru-nyenke.oroma@ust.edu.ng

Abstract

This paper underscores the significance of accounting control for businesses, outlining various measures that wield substantial influence on quoted firms' financial performance in Nigeria. Effective accounting control is fundamental for maintaining precise financial records, safeguarding assets, and adhering to regulatory requirements. It serves as a bulwark against errors, fraud, and misallocation of funds, preserving the firm's financial interests. Robust accounting control measures also augment decision-making capabilities, pinpoint cost-saving avenues, and amplify operational efficiency. Moreover, they bolster investor confidence, bolstering the firm's credibility and attracting potential investors, thereby facilitating capital procurement activities. This article delineates several categories of accounting control measures pertinent to quoted firms in Nigeria. Inventory control emerges as a critical facet, directly impacting financial performance. Efficient inventory management ensures timely availability of goods, mitigating risks of stockouts or overstocking. Employing advanced inventory control systems further heightens efficiency and precision. Cost control measures are indispensable for upholding financial stability and profitability, helping to trim needless expenditures and allocate resources judiciously. Financing control strategies are essential to optimize capital structure, trim financing costs, and enhance financial performance. By scrutinizing and managing financing activities, firms can bolster liquidity, curtail reliance on costly debt, and fine-tune the cost of capital. Inventory control's influence on financial performance is substantial, as it ensures timely availability of products, preventing stockouts and reducing carrying costs. Accurate demand forecasting and leveraging advanced inventory management systems are crucial strategies. This practice liberates capital for other endeavors and fortifies competitiveness. Additionally, it averts lost sales and customer dissatisfaction, fostering loyalty and repeat business. Cost control measures assume a pivotal role in enhancing the financial performance of quoted firms in Nigeria. Through vigilant expense monitoring and astute budget management, companies uncover inefficiencies and implement corrective measures, resulting in significant cost savings. Streamlining operations and resource allocation further bolster operational efficiency, reducing costs and elevating profitability. Discerning pricing strategies based on accurate cost analysis enhances customer value, expanding market share and ultimately driving financial performance. Financing control's impact on financial performance is considerable, influencing liquidity, reducing financing costs, and fortifying financial stability. Analyzing and optimizing capital structures helps minimize financing expenses and enhance overall financial performance. Working capital management is another crucial facet, ensuring adequate liquidity and averting cash flow shortages. Effective evaluation of financing options and negotiations with lenders or investors further contribute to lower financing costs, improved profitability, and financial stability. Despite the undeniable benefits of accounting control, certain challenges impede its effective implementation. These include a lack of awareness and understanding among stakeholders, resource constraints, and resistance to change. Overcoming these challenges necessitates clear communication, training, and proactive measures to ensure a seamless transition towards robust accounting control measures.

Keywords: Accounting control, financial performance, inventory control, cost control, financing control, quoted firms, Nigeria.

Introduction

In today's competitive business landscape, accounting control plays a crucial role in determining the financial performance of firms in Nigeria (Olaide & Omodero, 2023). Accounting control refers to the process of monitoring, evaluating, and managing financial activities to ensure accuracy, transparency, and efficiency. It encompasses various measures that are implemented to safeguard assets, prevent fraud, and optimize financial performance. Effective accounting control is essential for businesses as it provides a framework for maintaining accurate financial records, protecting assets, and ensuring compliance with regulatory requirements. It helps in detecting and preventing errors, fraud, and misappropriation of funds, thereby safeguarding the financial interests of the firm. By implementing robust accounting control measures, companies can also enhance their decision-making processes, identify cost-saving opportunities, and improve overall operational efficiency. Furthermore, accounting control instills investor confidence and strengthens the credibility of the firm, which can attract potential investors and facilitate capital raising activities.

Types of Accounting Control Measures

Inventory Control: Inventory management is a critical aspect of accounting control that directly impacts the financial performance of quoted firms in Nigeria. Efficient inventory control ensures that the right amount of goods is available at the right time, minimizing the risk of stockouts or overstocking (Alhassan & Muhammad, 2022). By accurately tracking inventory levels, companies can optimize working capital, reduce holding costs, and enhance cash flow. Implementing advanced inventory control systems, such as barcode scanning and automated replenishment, can further improve efficiency and accuracy in managing inventory.

Cost Control: Cost control measures are essential for maintaining financial stability and profitability. By implementing effective cost control strategies, companies can identify and reduce unnecessary expenses, streamline operations, and allocate resources more efficiently (Kaplan & Atkinson, 2015). This can lead to improved financial performance and increased profitability. Cost control measures can include regular monitoring of expenses, conducting cost-benefit analyses, negotiating better vendor contracts, and implementing cost-saving initiatives such as energy efficiency programs or lean manufacturing practices.

Financing Control: Financing control refers to the management of financial resources to optimize capital structure, minimize financing costs, and improve overall financial performance. Quoted firms in Nigeria need to effectively manage their financing activities to ensure adequate liquidity, reduce reliance on expensive debt, and optimize the cost of capital (Gitman, & Zutter, 2019). This can be achieved through strategies such as analyzing the capital structure, evaluating financing options, optimizing working capital management, and actively managing cash flow. By implementing robust financing control measures, companies can improve their financial performance and enhance their ability to invest in growth opportunities.

Inventory Control and its Impact on Financial Performance

Effective inventory control is crucial for the financial performance of quoted firms in Nigeria. Proper management of inventory levels ensures that the right products are available at the right time, preventing stock outs and reducing carrying costs. By implementing efficient inventory control measures, companies can optimize working capital, improve cash flow, and enhance profitability.

One of the key aspects of inventory control is accurately forecasting demand and aligning it with procurement and production activities. By leveraging advanced inventory management systems, companies can track sales trends, analyze historical data, and make informed decisions regarding inventory levels. This enables them to avoid excess inventory and reduce the risk of obsolescence, thereby freeing up capital for other business activities.

Moreover, efficient inventory control also minimizes the risk of stockouts, which can lead to lost sales and customer dissatisfaction. By ensuring that products are readily available, companies can meet customer demands promptly and maintain a competitive edge in the market. This can result in increased customer loyalty, repeat purchases, and ultimately, improved financial performance.

In conclusion, inventory control is a critical component of accounting control that significantly impacts the financial performance of quoted firms in Nigeria. By implementing effective inventory control measures, companies can optimize working capital, improve cash flow, and enhance profitability.

Cost Control and its Impact on Financial Performance

Cost control measures play a crucial role in improving the financial performance of quoted firms in Nigeria. By effectively managing costs, companies can enhance their profitability, competitiveness, and overall financial stability. One of the key benefits of cost control is the identification and elimination of unnecessary expenses. By regularly monitoring expenses, scrutinizing budgets, and conducting cost-benefit analyses, companies can identify areas of inefficiency and implement corrective measures. This can lead to significant cost savings and improved financial performance.

Cost control also enables companies to optimize resource allocation and streamline operations. By

eliminating redundant processes, reducing waste, and improving productivity, companies can enhance operational efficiency and reduce costs. This can result in improved profitability and competitiveness in the market. Moreover, effective cost control measures can also lead to better pricing strategies and improved customer value. By understanding the true cost of products and services, companies can set competitive prices that ensure profitability while meeting customer expectations. This can attract more customers, increase market share, and ultimately, drive financial performance.

In conclusion, cost control is a vital aspect of accounting control that can significantly impact the financial performance of quoted firms in Nigeria. By implementing robust cost control measures, companies can identify cost-saving opportunities, streamline operations, and enhance profitability.

Role of Financing Control in Improving Financial Performance

Financing control plays a crucial role in improving the financial performance of quoted firms in Nigeria. By effectively managing financial resources and optimizing the capital structure, companies can enhance their liquidity, reduce financing costs, and improve overall financial stability. One key aspect of financing control is analyzing and optimizing the capital structure. By evaluating the mix of debt and equity financing, companies can determine the most cost-effective and efficient way to fund their operations. This can help in minimizing financing costs and optimizing the cost of capital, thereby improving financial performance.

Another important aspect of financing control is working capital management. By actively managing cash flow, accounts receivable, and accounts payable, companies can ensure adequate liquidity and reduce the risk of cash flow shortages. This can help in meeting financial obligations, avoiding costly penalties, and maintaining a healthy financial position. Furthermore, effective financing control measures also involve evaluating financing options and negotiating favorable terms with lenders or investors. By exploring different sources of funding, companies can secure financing at competitive rates and reduce reliance on expensive debt. This can lead to lower financing costs, improved profitability, and enhanced financial performance.

In conclusion, financing control is a critical component of accounting control that can significantly improve the financial performance of quoted firms in Nigeria. By optimizing the capital structure, managing working capital, and exploring financing options, companies can enhance liquidity, reduce financing costs, and improve overall financial stability.

Challenges in Implementing Effective Accounting Control Measures

Despite the importance of accounting control measures for improving the financial performance of quoted firms in Nigeria, there are several challenges associated with their implementation. These challenges can hinder the effectiveness and efficiency of accounting control, making it crucial for companies to address them proactively.

Lack of Awareness and Understanding: One of the primary challenges in implementing effective accounting control measures is the lack of awareness and understanding among employees. Accounting control requires the active participation and cooperation of all stakeholders, including management, employees, and auditors. Without a clear understanding of the importance and benefits of accounting control, employees may not fully support its implementation, leading to gaps in control measures.

Resource Constraints: Limited resources, both financial and human, can pose significant challenges in implementing robust accounting control measures. Companies may struggle to invest in advanced accounting systems, hire qualified personnel, or provide adequate training to employees. This can result in ineffective control measures, leaving the company vulnerable to errors, fraud, and financial losses.

Resistance to Change: Implementing new accounting control measures often requires changes in processes, procedures, and systems. Resistance to change from employees or management can hinder the successful implementation of accounting control measures. It is crucial for companies to communicate the benefits of the proposed changes, provide adequate training and support, and ad-

dress any concerns or resistance to ensure a smooth transition.

To overcome these challenges, companies can adopt various strategies to improve accounting control and enhance financial performance.

Strategies for Improving Accounting Control in Nigerian Firms

Education and Training: To address the lack of awareness and understanding, companies should invest in education and training programs to familiarize employees with accounting control principles, processes, and benefits. This can include workshops, seminars, and regular communication about the importance of accounting control in achieving financial performance goals.

Investment in Technology: To overcome resource constraints, companies should consider investing in advanced accounting systems and technologies. Automation can streamline processes, improve accuracy, and reduce the risk of errors or fraud. Cloud-based accounting software can also provide real-time access to financial data, facilitating better decision-making and control.

Strengthening Internal Controls: Companies should regularly evaluate and strengthen their internal control systems to mitigate risks and ensure compliance. This can involve conducting periodic internal audits, implementing segregation of duties, and establishing clear policies and procedures. Monitoring and reporting mechanisms should also be in place to detect and address control deficiencies promptly.

Continuous Improvement: Accounting control should be viewed as an ongoing process that requires continuous improvement. Companies should regularly review and update control measures in response to changes in the business environment, regulatory requirements, and emerging risks. This can help in staying ahead of potential control gaps and ensuring the effectiveness of accounting control measures.

By adopting these strategies, Nigerian firms can improve accounting control, enhance financial performance, and achieve long-term sustainability.

Studies on Successful Implementation of Accounting Control Measures

To illustrate the effectiveness of accounting control measures in improving financial performance, let's explore two case studies of Nigerian firms that have successfully implemented robust control measures.

Dangote Cement PLC and BUA Cement PLC

The two companies are leading Nigerian industrial goods manufacturing firms that have implemented a comprehensive inventory control system to optimize its supply chain and improve its financial performance (Olaide and Omodero, 2023). By leveraging advanced technology and real-time data analysis, Dangote Cement PLC and BUA Cement PLC accurately tracked inventory levels, demand patterns, and production schedules. This enabled the company to avoid stockouts, reduce carrying costs, and improve cash flow. As a result, firms experienced significant cost savings, enhanced customer satisfaction, and improved profitability (Olaide and Omodero, 2023).

8 international and 4 national licensed banks

The eight international licensed banks are Access bank, Zenith bank, Diamond bank, United Bank for Africa, GTbank, Fidelity Bank, First Bank of Nigeria, First City Monument Bank while the four national licensed banks include, Ecobank, Stanbic IBTC, Sterling Bank and Unity Bank, this prominent Nigerian financial institution, recognized the importance of financing control in managing its capital structure and improving financial performance (Ahmed, Ningi and Dalhat, 2018). The bank implemented a robust financing control framework that involved analyzing its capital requirements, optimizing the mix of debt and equity, and actively managing cash flow and working capital. This enabled these banks to reduce its cost of capital, enhance liquidity, and improve overall financial stability. As a result, these banks experienced improved profitability, strengthened investor confidence, and continued growth in the Nigerian banking sector.

Recommendations

Based on the insights gained from the importance of accounting control and successful case studies, the following recommendations can be made to improve financial performance through effective accounting control:

Invest in Advanced Technology: Companies should invest in advanced accounting systems and technologies to streamline processes, improve accuracy, and enhance control. This can include cloud-based accounting software, automated inventory management systems, and real-time financial reporting tools.

Regular Internal Audits: Conduct regular internal audits to evaluate the effectiveness of control measures, detect control deficiencies, and ensure compliance with regulatory requirements. Internal audits can provide valuable insights and recommendations for improving accounting control and financial performance.

Employee Training and Development: Provide ongoing training and development programs to enhance employees' understanding of accounting control principles, processes, and benefits. This can foster a culture of accountability, improve compliance, and empower employees to actively contribute to the company's financial performance.

Continuous Monitoring and Reporting: Implement monitoring and reporting mechanisms to track key financial indicators, detect anomalies, and address control deficiencies promptly. This can involve regular financial statement reviews, variance analysis, and exception reporting.

Regular Review and Update of Control Measures: Accounting control measures should be regularly reviewed and updated to align with changing business needs, emerging risks, and regulatory requirements. By staying proactive and responsive, companies can maintain the effectiveness of control measures and ensure ongoing improvement in financial performance.

By implementing these recommendations, Nigerian firms can enhance their financial performance,

References

Ahmed, H.U., Ningi, S.I. & Dalhat, B.S. (2018). Capital structure and performance of deposit money banks in Nigeria. NDIC Quarterly 33(3&4), 49-76.

Alhassan, I. & Muhammad, H.M. (2022). Inventory management and financial performance of listed manufacturing firms in Nigeria. London Journal of Research in Management and Business, 22(2), 33 – 47.

Anthony, R. N., & Govindarajan, V. (2007). Management control systems. Tata McGraw-Hill Education.

Anthony, R. N., Hawkins, D. F., & Merchant, K. A. (2003). Accounting: Text and Cases. McGraw-Hill Education.

Bodie, Z., Kane, A., & Marcus, A. J. (2018). Investments. McGraw-Hill Education.

Collier, P. M. (2005). Accounting for managers: Interpreting accounting information for decision making. John Wiley & Sons.

Drury, C. (2018). Management and cost accounting. Cengage Learning.

Gitman, L. J., & Zutter, C. J. (2019). Principles of managerial finance. Pearson.

Hansen, D. R., & Mowen, M. M. (2018). Cost management: Accounting and control. Cengage Learning.

Horngren, C. T., Sundem, G. L., & Stratton, W. O. (2005). Introduction to management accounting. Pearson/Prentice Hall.

Horngren, C. T., Sundem, G. L., Elliott, J. A., & Philbrick, D. R. (2012). Introduction to Financial Accounting. Pearson.

Kaplan, R. S., & Atkinson, A. A. (2015). Advanced management accounting. Pearson.

Needles, B. E., Powers, M., & Crosson, S. V. (2011). Financial and Managerial Accounting. Cen-

gage Learning.
Needles, B. E., Powers, M., & Crosson, S. V. (2017). Principles of accounting. Cengage Learning.
Nigerian Accounting Standards Board (NASB). (2019). Accounting Standards and Guidelines for Nigeria. [https://nasbnigeria.org.ng/]
Nigerian Stock Exchange. (n.d.). About Us. [https://www.nse.com.ng/about/]
Olaide, A.L. & Omodero, C.O. (2023). Inventory control system and profitability of companies: A study of selected listed firms in Nigeria
Pratt, J., & Niculita, A. (2009). Cost of Capital Estimation and the Error in the Analysts' EPS Forecast. *The International Journal of Accounting*, 44(3), 225-248.
Van Horne, J. C., & Wachowicz Jr, J. M. (2008). Fundamentals of financial management. Pearson.

Balanced Scorecard and Performance of selected listed companies in Nigeria

ADEKOLA Adeola Adebayo
Department of Accountancy
The Polytechnic, Ibadan,
Oyo State, Nigeria
deola_adekola1973@yahoo.com

Abstract
The study investigated balance scorecard and performance of selected listed companies on the Nigerian exchange. The study was anchored on stakeholders' theory on the need to balance the interest of the various stakeholders with the set goals and objectives that the business concern is set out to achieve. The result from findings posited a significant relationship between balance scorecard and performance of selected listed companies (p value 0.000). The specific variable result also shows a significant relationship between Return on equity which is the proxy of performance and effectiveness which is the proxy of balanced scorecard. Another proxy of balance score card which is increased profit also shows a significant relationship with earnings before Interest and Tax that is the proxy of performance. The study concluded on the need for concerns to leverage on the instrumentality of balance score card in gauging performance and therefore recommends on its constant use with other performance oriented measures that will dovetail into the actualization of the goals and objectives of the business
Keywords: Balanced scorecard, earnings, performance, stakeholder,

Introduction

In the light of globalization and the new changes, challenges are becoming bigger, competition is intensifying and enterprises find themselves looking for appropriate solutions to keep pace with changes in the field of science and technology and to maintain their market shares that ensure their survival, and maximize their profits to develop their competitiveness (Mohammed, 2021). According to Sweiti and Lele (2016), Balance Score Card (BSC) has gained significant importance over the years as a strategic management tool that enables organizations to align their business activities to the vision and strategy of the organization and improve their overall performance. Achieving profitability in businesses has always been a necessary requirement for continuity, growth and expansion, to attain this, demands making strategic plans by employees who have been tasked with specific organizational responsibilities (Alao, 2013).

The finance focus is not enough even though the financial health of a business organization is essential, there are other interrelated factors which are necessary for success, strategic plans aimed at achieving organization goals should consider customer satisfaction, product quality, sales mix along with other drivers directed at attaining organization goals (Norton & Kaplan, 2012). The continual process of adaptation, execution, and management that the scorecard fostered helped the team respond to, and even anticipate, its client evolving needs. Eventually use of the scorecard for performance measurement spread to the rest of the organization, with monetary incentives linked to the company's performance along the different dimensions. There is no doubt that the vast majority of industrial, commercial and service organizations are racing towards global competition, to achieve profitability and reach its highest levels, and that the success of these organizations extends their effects to be reflected in the economy and activity on the state and world level (Mohammed, 2021).

Objective of the study

The objective of the study is to examine the impact of balanced scorecard on financial performance of selected listed organizations on the Nigerian Exchange. The specific objectives are:

To examine the effect of balanced scorecard on return on equity of selected listed companies

To investigate the effect of balanced scorecard on Earning Before Interest and Tax of selected listed companies on Nigeria

To examine the effect of balanced scorecard on return on Asset of selected listed companies of Nigerian exchange.

Concept of Balanced Scorecard

According to Sahiti, Ahmeti, Sahiti, and Aliu (2016), balanced scorecard is used to measure performance and a sophisticated instrument which helps to coordinate and to arrange better operations of a company in order for all of its activities to be in compliance with its strategy. Balanced scorecard can be described as a performance management tool that eases the translation of the vision and the strategy of a company towards a tangible set of measurements and it has been suggested that a balanced set of measures should be used by businesses to enable the higher management to undertake a comprehensive view in business from four perspectives (Sahiti, Ahmeti, Sahiti, and Aliu 2016).

The balanced scorecard translates an organization's mission and strategy into a set of performance measures that provides the framework for implementing its strategy. The balanced scorecard does not focus solely on achieving short-run financial objectives. It also highlights the nonfinancial objectives that an organization must achieve to meet and sustain its financial objectives. Balanced Scorecard (BSC) is a modern system of measuring the performance, Comprehensive focus is on measuring both the financial and non-financial Perspectives, helping enterprises to identify their vision and strategy and transforming vision and strategy into specific activities (Tuan, 2020).

Strategic management decisions and actions that lead to the effective development help in achieving company's goals and ccompanies need to determine alternative targets that enhance and attain maximum profitability, as a result, managers should focus on enterprise resource utilization to optimize the achievement of these goals (Aulia & Ikhwana, 2012). According to Chipset (2011) the following perspectives of balanced scorecard are very germane:

Financial perspective: This perspective evaluates the profitability of the strategy and the creation of shareholder value. Because Chipset's key strategic initiatives are cost reduction relative to competitors' costs and sales growth, the financial perspective focuses on how much operating income results from reducing costs and selling more units of products.

Customer perspective: This perspective identifies targeted customer and market segments and measures the company's success in these segments. To monitor its customer objectives, Chipset uses measures such as market share in the communication-networks segment, number of new customers, and customer-satisfaction ratings.

Internal-business-process perspective: According to Kaplan and Norton (2006), this perspective focuses on internal operations that create value for customers that, in turn, help achieve financial performance. Chipset (2011) determines internal-business-process improvement targets after benchmarking against its main competitors using information from published financial statements, prevailing prices, customers, suppliers, former employees, industry experts, and financial analysts. The internal-business-process perspective comprise innovation process, operations process and post-sales-service process. Innovation process involves creating products and processes that meet the needs of customers. This is a very important process for companies that follow a product-differentiation strategy and must constantly design and develop innovative new products to remain competitive in the marketplace. Chipset's innovation focuses on improving its manufacturing capability and process controls to lower costs and improve quality. Chipset measures innovation by the number of improvements in manufacturing processes and percentage of processes with advanced controls.

Operations process focuses on producing and delivering existing products and services that will meet the needs of customers. Chipset's strategic initiatives are (a) improving manufacturing quality, (b) reducing delivery time to customers, and (c) meeting specified delivery dates so it measures yield, order-delivery time, and on-time deliveries. Post-sales-service process: Providing service and support to the customer after the sale of a product or service. Chipset monitors how quickly and accurately it is responding to customer-service requests.

Learning-and-growth perspective. This perspective identifies the capabilities the organization must excel at to achieve superior internal processes that in turn create value for customers and shareholders. Chipset (2011) learning and growth perspective emphasizes three capabilities: (1) information-system capabilities, measured by the percentage of manufacturing processes with real-time feedback; (2) employee capabilities, measured by the percentage of employees trained in process and quality management; and (3) motivation, measured by employee satisfaction and the percentage of manufacturing and sales employees (line employees) empowered to manage processes.

Theoretical Framework

The key theory that was adapted to be relevant to the study is Stakeholders Theory. Stakeholder theory (1984) according to Freeman established that individuals and groups that have an interest in the well being of the company and or are affected by the goals, operations or activities of the organization or the behaviour that its members have a stake in what the organization does. Thus, stakeholders in relation to the study conducted by Alao (2013) are employees and management who are internal to the operations of the organization, while customers, suppliers, competitors are external to the operations of the organization.

The study further observed that there are obvious close links between all concerned on which strategies have to be put in place in order to attain the organization goal through which the performance of employees is measured. Employees with salient functions actually have roles to perform in enhancing organization growth and profitability which is the primary objective of using the balanced scorecard to propel actualization of organization goal.

Empirical Framework

Nazim (2011), presented a critical analysis of Balance Score Card (BSC) as a performance measurement instrument who argued that BSC is a highly comprehensive and effective tool for performance measurement of firms. According to Sweiti, and Lele (2016) the research carried out in Dutch firms focused on optimal use of BSC for performance improvement and their study indicated that if use of BSC complements corporate strategy it has a positive influence on company performance. However, if it is not related to the strategy then the performance may decrease. An empirical study of comparing the financial performance of two sister concerns of an electrical wholesale chain based in UK showed that the firm implementing BSC demonstrated better financial performance with respect to its sister concern that did not implement BSC (Sweti & Lele, 2016).

The study conducted by (Treyer, 2011) aims to use the strategic profitability analysis as a tool to control the identification of variances that occurred at the end of the year, then find and treat them, in order to find out whether the variances are positive in an attempt to continue or negative to try to address them in order to evaluate companies. Assagaf, Yusoff, & Hassan (2017) examined that strategic profitability has a significant positive impact on the financial strength, which means there are opportunities for management to perform profitability practice of earnings management as strategic to enhance the level of financial strength of the company.

Chauhan and Bhayani, (2010) investigated the impact of mergers on shareholders" value creation in Indian industry and the result suggests that firm's shareholders value creation is highly dependent on Operating expenses, Profit margin, ROCE and Expense ratio. The inter company and inter industry analysis results indicated there is no positive impact of mergers on shareholder value creation.

Pratapsinh (2012) examined the shareholder's value creation in the Indian petroleum industry, the study aims to analyze the performance of the company and have divided petroleum into public sector firm and private sector firms. (Suresh & Sengottaiyan, 2015), and Return on Equity which measures the return a company generates on its net assets, or return on invested capital, with respect to ROA, Return on Assets is an indicator of accounting measurement of value creation of shareholders and is one of the profitability ratios that measure the efficiency of the use of company assets in generating profits for the company (Siburian & Yohanes, 2019).

Methodology

This research design for this study was an *ex post facto* design considering that secondary source of data was explored. The study exploited secondary data collected from the audited annual report and accounts of selected quoted companies sampled for the study and to examine causal relationships between the relevant variables of the study. The justification for this is the reliability of not just getting updated data for the variables but also the ease of getting the data now that digital technology seems to have assisted the process of data processing by many listed companies on the Nigerian Exchange (NE). In line with Torabi, Eshraghi and Nagheti (2017), the *ex post facto* research design was adopted as it was found sufficient in achieving the research objectives of the study. The data input was predicated on secondary data because it investigated the extent of relationship between the relevant variables to be used.

The population of the study comprised companies that were quoted on the Nigerian Exchange (NSE). Effort was also instituted towards integrating almost all the sectors so that objective findings could ensue from the research exercise. One hundred and seventy (170) companies listed on the NSE as at 2022 were considered as population comprising eleven sectors. The justification for our proposed adoption of the publicly quoted companies was anchored on the reliability of data gathered for the study since most of these concerns usually have both abridged and comprehensive picture of their state of affairs at particular periods. The Nigerian Exchange sub-divisions of the listed companies are as follows:

Table 1. The Nigerian Stock Exchange Sub-division of Listed Companies

S/N	Sector	Number
1.	Agriculture	11
2.	Conglomerate	06
3.	Construction/Real estate	08
4.	Consumer Goods	21
5.	Financial Services	56
6.	Healthcare	08
7.	ICT (Information Communication Technology)	07
8.	Industrial Goods	14
9.	Natural Resources	03
10.	Oil and Gas	12
11.	Services	24
	TOTAL	170

Source: The Nigerian Stock Exchange Fact Book, 2022

The sample size for the study comprised sixty (60) of the listed companies on the Nigeria Stock Exchange. The sample size was arrived at using Taro Yamani's model of sample size (Becker, 1955). Although sixty (60) of selected listed companies on the Nigerian Stock Exchange (NSE) were used in the study for years ranging from 2008 to 2022. Torabi, Eshraghi and Nagheti (2017) adopted the model in their work. Also Shahzad, Nazir, and Amin (2017) adopted Taro Yamani's model in their work that concluded with a significant relationship between the variables of study. Esther (2019) equally adopted Taro Yamani in her thesis. The sampling technique adopted for this study was stratified random sampling on the premise that gave all eleven sectors on the Nigerian Exchange (NE) equal chances of being selected having divided them into strata.

Sixty (60) companies were selected from the 119 sample size and the justification for this was that they were the ones that appear to possess updated records as at the time of conducting the study and the choice of 2000 base year was also predicated on the instance of the Millennium Development Goal (MDG) that concerns appears to have identified with. Therefore the 2000 base year could be taken as a new era of business ethics among the companies.

Also stratified sampling technique ascertained reasonable representation of each type of category having structured the sectors into strata and this went a long way in ensuring trust and reliability. Furthermore stratified sampling technique improved the impeccability of the sample estimates. Finally stratified sampling technique made possible disproportionate sample sizes from each stratum. The table below gave the highlight into the sampling

$S = N/1+ N (e^2)$
Where:
S = sample size
N = Population size at 170
e = Margin of error at 5 %
Result = 119
Actual sample = 119/2 = 60
60 listed companies for a ten year period = 600 observations

Table 2: Sample Frame

S/N	Sector	Number
1.	Agriculture	11
2.	Conglomerate	06
3.	Construction/Real estate	08
4.	Consumer Goods	10
5.	Financial Services	25
6.	Healthcare	08
7.	ICT (Information Communication Technology)	07
8.	Industrial Goods	14
9.	Natural Resources	03
10.	Oil and Gas	12
11.	Services	15
	Total	119

Source: Researcher's survey 2022

Stratified random sampling methods were adopted in selecting the organizations that were publicly

listed. It is important to state that sampling technique ensure reasonable representation of each type of categories, tailored towards engendering greater reliability. This means all selected companies were given equal chances of being represented when simple random sampling was applied to each stratum of the sector. Also it is ideal to establish that the sampling technique improve the accuracy of the sample estimates which invariably means that the integrity of selected companies had been factored into the selection The technique require small sample to ensure representativeness than other method and also used reliable variables to define the segment thus engendering the reliability of the study's data. The technique also makes possible disproportionate sample sizes from different stratra.

The validity of instrument was based on the premise that the figures extracted from the financial statements and the Nigerian Exchange (NSE) fact book was cross checked by the thesis supervisors to ensure data covers all the variables to be measured and was accurately extracted. The validity was also predicated on the fact that the data extracted from the fact book was reconciled with figures from the financial report that was directly received from some of the selected quoted companies. Validity of data was also ascertained via the comparison between the online data of some concerns and factbook data where data seem to have agreed substantially.

The reliability of variable was equally predicated on the instance that the companies in addition to the use of relevant accounting standards also coupled with Companies and Allied Matters Act (CAMA) section 352-354 which validated all companies to subject their accounts to independent audit and professional opinions. Also to buttress reliability of the variables was the fact that only data from audited financial report was used and the audited date was approved for use by reliable regulators.

Secondary source of data of the public companies on the Nigerian Exchange (NE) was explored as this source was adjudged to be the veritable avenue of extracting important information for our study. The use of questionnaire for this kind of study could pose significant subjectivity from respondents as they might not have firsthand information or a detailed one that is important for this study. A secondary source like the study has adopted would cater for the aforementioned possible lacuna

Descriptive Statistics

	Mean	Std. Deviation	N
Age	1.50	.500	1231
Gender	1.04	.196	1232
Country of Residence	1.33	.471	1241
Balanced Scorecard	20.9686	4.42942	1243
Performance	21.4586	4.02504	1243
Return on Asset	21.3512	4.32575	1243

Correlations

		Age	Gender	Country of Residence	Vision	Humility	Agapao love
Age	Pearson Correlation	1	.133**	.564**	.006	.080**	.197**
	Sig. (2-tailed)		.000	.000	.825	.005	.000
	N	1231	1222	1231	1231	1231	1231
Gender	Pearson Correlation	.133**	1	.230**	-.007	.038	.041
	Sig. (2-tailed)	.000		.000	.817	.179	.148
	N	1222	1232	1232	1232	1232	1232
Country of Residence	Pearson Correlation	.564**	.230**	1	.085**	.204**	.303**
	Sig. (2-tailed)	.000	.000		.003	.000	.000
	N	1231	1232	1241	1241	1241	1241
Balanced Scorecard	Pearson Correlation	.006	-.007	.085**	1	.441**	.472**
	Sig. (2-tailed)	.825	.817	.003		.000	.000
	N	1231	1232	1241	1243	1243	1243
Performance	Pearson Correlation	.080**	.038	.204**	.441**	1	.655**
	Sig. (2-tailed)	.005	.179	.000	.000		.000
	N	1231	1232	1241	1243	1243	1243
Return on Asset	Pearson Correlation	.197**	.041	.303**	.472**	.655**	1
	Sig. (2-tailed)	.000	.148	.000	.000	.000	
	N	1231	1232	1241	1243	1243	1243

All the 1 in the diagonals above suggest a perfect correlation and this will always happen where a variable is compared with itself. What is most important above is the correlation between different variables. The modalities are to establish the relationships and significance level. The correlation between Age and Gender with -0.133 is a negative correlation meaning we can have men and women in different age categories. Also the p-value of 0.000 less than 0.05 shows that it is significant. The relationship between Age and Country of Residence of -0.564 is a negative correlation meaning we can have both young and adults living in any parts of the country. It also means that no part of the country is exclusively reserved for a particular age group.

Age and Country of Residence is significant not withstanding since the p-value of 0.000 is less than 5%. The relationship between Age and balanced scorecard of 0.006 is a positive correlation although not perfect correlation since it is not up to 1.The p-value of 0.825 which is higher than 0.05 shows it is not significant. The relationship between Age and performance, Age and return on Asset is a negative relationship. It means we can have a young lad who is humble and likewise an adult who is arrogant, so also we can have arrogant young person and humble adult. Also there is no age barrier to love. People of different age bracket can love with no restriction to the age category that should love.

It is evident from the above covariance matrices that since the p-value of 0.007 is less than 0.005 this test is significant. It further reveals that the dependent variables are not the same across all the groups. If further means we reject the null hypothesis

Multivariate Tests[a]							
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.937	3391.081[b]	3.000	680.000	.000	.937
	Wilks' Lambda	.063	3391.081[b]	3.000	680.000	.000	.937
	Hotelling's Trace	14.961	3391.081[b]	3.000	680.000	.000	.937
	Roy's Largest Root	14.961	3391.081[b]	3.000	680.000	.000	.937
Age	Pillai's Trace	.249	1.105	168.000	2046.000	.178	.083
	Wilks' Lambda	.770	1.104	168.000	2039.496	.180	.083
	Hotelling's Trace	.273	1.104	168.000	2036.000	.181	.083
	Roy's Largest Root	.106	1.293[c]	56.000	682.000	.079	.096

a. Design: Intercept + age

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

From the above multivariate tests table the difference between the age categories and the linear combination of the dependent variables (job satisfaction, Numbers of hours worked and years of education) is given by Wilkis" Lamba as Wilk's = 0.770, F stat. =1.104, p-value = 0.180, partial n^2 = 0.083.

Levene's Test of Equality of Error Variances[a]				
	F	df1	df2	Sig.
Job Satisfaction (satjob)	1.389	56	682	.036
hours worked	1.455	56	682	.019
respondent years of education	2.144	56	682	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + age

Tests of Between-Subjects Effects							
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Job Satisfaction (satjob)	42.011[a]	56	.750	1.265	.099	.094
	hours worked	7240.807[b]	56	129.300	1.021	.435	.077
	respondent years of education	405.113[c]	56	7.234	1.086	.315	.082
Intercept	Job Satisfaction (satjob)	583.682	1	583.682	984.172	.000	.591
	hours worked	444270.687	1	444270.687	3508.899	.000	.837
	respondent years of education	41737.233	1	41737.233	6268.299	.000	.902
Age	Job Satisfaction (satjob)	42.011	56	.750	1.265	.099	.094
	hours worked	7240.807	56	129.300	1.021	.435	.077
	respondent years of education	405.113	56	7.234	1.086	.315	.082
Error	Job Satisfaction (satjob)	404.473	682	.593			
	hours worked	86349.775	682	126.613			
	respondent years of education	4541.071	682	6.658			
Total	Job Satisfaction (satjob)	2667.000	739				
	hours worked	1696659.000	739				
	respondent years of education	151926.000	739				
Corrected Total	Job Satisfaction (satjob)	446.484	738				
	hours worked	93590.582	738				
	respondent years of education	4946.184	738				

a. R Squared = .094 (Adjusted R Squared = .020)

b. R Squared = .077 (Adjusted R Squared = .002)

c. R Squared = .082 (Adjusted R Squared = .007)

From the above since we have multiple regression the Adjusted R Square is the most important as it explains those variables captured. That is the proportion of the Y variables explained in X variables and the closer to one it is the better and the good fitted it portrays. 0.027 is not closer to one so we can conclude that this regression model is not good fitted. The standard error of the estimate of 0.45303 is a measure of the variability and smaller numbers are more accurate than larger numbers.

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.852	5	.970	4.728	.000[b]
	Residual	134.430	655	.205		
	Total	139.282	660			

a. Dependent Variable: Prayer

b. Predictors: (Constant), FamilyBackground, LevelOfStudy, Gender, FamilyIncome, Age

Conclusion and Recommendations

A firm which operates in a competitive environmental has to adopt various strategies to survive profitably into the market where it operates (Mohammed, 2021). Porter in its generic strategy theory has suggested that a firm can survive profitably in the long term if it chooses its generic strategy according to the environment in which it operates and which conforms to the overall corporate objectives. A firm would be profitable if it is either a cost leader i.e. it can produce its product at a lower cost than its competitors and enjoy maximum market share or if it produce its product with some peculiar features which make it different from others. Balanced scorecard no doubt is one of the most formidable and potent tool of performance gauging.

The study concluded on the need for concerns to leverage on the instrumentality of balance score card in gauging performance and therefore recommends on its constant use with other performance oriented measures that will dovetail into the actualization of the goals and objectives of the business. Balanced scorecard should be explored by goals driven concerns as not only performance measuring tool but also form an integral part of helping to sustain the effective and efficient measure of performance. Return on eqity, increased profit, return on asset, productivity, are the measure of balance scorecard and performance that is used to engender performance.

References

Alao, E. (2013). Strategic decision making balanced scorecard profitability: Issues and challenges. *International Journal of Accounting and Research*, 1(1), 12-31.

Assagaf, M., Yusoff, M. Y., &, Hassan, R. (2017). Government subsidy strategic profitability and its impact on financial performance: Empirical evidence from Indonesia investment. *Management and Financial Innovations, 14*(3), pp.135-147.

Aulia, D. and Ikhwana, D. (2012). Business development strategy planning Woven Silk with Balanced Scorecard Approach Method: Case Study in Three Men's Silk Factory *Journal Ssttgarut*, *10*(1), 1-12.

Chauhan Pratapsinh & Bhayani Sanjay, (2010). Effect of mergers on shareholders' value: Indian Evidence. *Management Trends*, 7(2), 1-30.

Chipset, (2011). Strategy, Balanced Scorecard, and Strategic Profitability Analysis

Kaplan R. & Norton D. (2006), Alignment: using the balanced scorecard to create synergies. Boston, Mass: Harvard Business School press.

Mohammed, H. H. (2021). The role of using strategic profitability analysis in maximizing shareholders value in economic units: An applied study in dairy factory.

Nazim, T. (2011). A critical analysis of balanced scorecard as a performance measurement tool: An overview of its usage and sustainability. Academia.Edu

Pratapsinh C., (2012). Shareholders value creation in indian petroleum industry: An empirical analysis. *International Conference on Business, Economics, Management and Behavioral Sciences* (ICBEMBS'2012) Jan. 7-8, Dubai. 22.

Sahiti, A., Ahmeti, S., Sahiti, A., & Aliu, M. (2016). The impact of balanced scorecard on improving the performance and profitability of the implementing companies. *Mediterranean Journal of Social sciences, 7*(4).

Shahzad, F., Nazir, M. R., & Amin, W. (2017). Does ownership structure impact on capital structure? *Journal of Management, Accounting and economics,4*(6), 629-639.

Suresh S. & Sengottaiyan A., (2015). A Study on Shareholders Value Creation and Financial Performance of Selected Auto Mobile Companies in India. *International Journal of Humanities Social Sciences and Education, 2*(8), pp. 95-102

Sweiti, I., & Lele, U. (2016). Impact of balanced scorecard implementation on financial performance of Saudi listed companies.

Tayler, B. (2010). The balanced scorecard as a strategy: Evaluation tool: The effects implementation involvement and a causal-chain focus. *The Accounting Review*, *85* (3).

Torabi, R., Eshraghi, M., & Nagheti, E. (2017). Financial stability and economic performance in OPEC countries: An approach to cointegration methods. *International Journal of Management Account and Econs. 4*(1), 56-65.

Tuan, T. T. (2020). The impact of balanced scorecard on performance: The case of Vietnamese commercial banks. *The Journal of Asian Finance, Economics and business*. 7(1), 71-79.

Blockchain Technology and Financial Inclusion in Nigeria: An Analysis of the Missing Link

Jamilu Abdulkadir
Distance Learning Centre
Ahmadu Bello University, Zaria
jameelabdulqadir@gmail.com

Abstract
This research study analyzes the missing link between blockchain technology and financial inclusion in Nigeria. The study aims to examine the current state of financial inclusion in Nigeria, explore the potential of blockchain technology in addressing the identified challenges, identify key barriers to its adoption, and propose practical strategies and recommendations to bridge the gap. The research methodology includes a comprehensive review of existing literature, data analysis, and case studies of blockchain-based financial inclusion projects in Nigeria. The findings reveal that although Nigeria has made progress in improving financial inclusion, significant gaps and challenges persist, including gender disparities, geographical limitations, and regulatory uncertainties. Blockchain technology offers potential solutions by providing secure, affordable, and accessible financial services to the unbanked population. However, challenges such as regulatory constraints, infrastructure limitations, lack of awareness and education, trust and security concerns, and socio-economic and cultural factors hinder its implementation. The study recommends the development of clear regulatory frameworks for blockchain technology, improvement of infrastructure and technological capabilities, awareness and education campaigns, addressing trust and security concerns, and tailored approaches that consider the local context.
Keywords: Blockchain technology, financial inclusion, missing link, Nigeria

Introduction
Blockchain technology has gained significant attention as a transformative innovation that has the potential to revolutionize various industries, including finance. Its decentralized nature, immutability, and transparency have made it a promising tool for addressing challenges in financial systems, particularly in developing countries (Tapscott & Tapscott, 2016; Crosby, Pattanayak, Verma & Kalyanaraman, 2016). Nigeria, as the largest economy in Africa, has been grappling with issues of financial inclusion, where a significant portion of the population lacks access to formal financial services (Ogunlesi & Ayo, 2019).

Financial inclusion refers to the provision of affordable and accessible financial services to individuals and businesses, irrespective of their income level or location (World Bank Group, 2020). It encompasses a range of services such as banking, savings, loans, insurance, and payment systems. Despite the efforts made by the Nigerian government and financial institutions to enhance financial inclusion, a substantial portion of the population remains unbanked or underbanked (Oyedokun, 2020).

Blockchain technology offers potential solutions to the challenges of financial inclusion in Nigeria. By leveraging blockchain's decentralized and transparent nature, financial services can be extended to the unbanked population in a secure and cost-effective manner (Swan, 2015; De Filippi & Hassan, 2016). Blockchain-based systems can enable the creation of digital identities, facilitate peer-to-peer transactions, reduce intermediaries, and ensure trust and accountability in financial transactions (Iansiti & Lakhani, 2017).

However, the implementation of blockchain technology in Nigeria's financial sector faces several challenges. These challenges include limited awareness and understanding of blockchain technology, regulatory uncertainties, inadequate infrastructure, and connectivity issues in remote areas (Kamara, Pellerin, & Dumortier, 2019). Additionally, cultural factors and trust barriers may also hinder the adoption of blockchain-based solution.

While blockchain technology holds promise for improving financial inclusion in Nigeria, there is a lack of comprehensive research exploring its potential impact and identifying the missing link in its implementation. The existing literature on blockchain technology and financial inclusion in Nigeria such as the study conducted by Ekong and Ekong (2022); Ajayi, Madewa, Fatoye and Oladipo (2022) is limited and primarily focuses on the theoretical aspects rather than practical insights. Therefore, there is a need for an in-depth analysis of the missing link between blockchain technology and financial inclusion in Nigeria to provide actionable recommendations for policymakers, financial institutions, and other stakeholders.

The primary objective of this study is to analyze the missing link between blockchain technology and financial inclusion in Nigeria. Specifically, the study aims to:

Examine the current state of financial inclusion in Nigeria, including the extent of the unbanked population and the challenges faced by individuals and communities in accessing financial services.

Explore the potential of blockchain technology in addressing the identified challenges and enhancing financial inclusion in Nigeria.

Identify the key barriers and constraints that hinder the adoption and implementation of blockchain technology for financial inclusion in Nigeria.

Propose practical strategies and recommendations to bridge the gap between blockchain technology and financial inclusion in Nigeria.

This study is significant for several reasons. Firstly, it contributes to the existing body of knowledge by providing a comprehensive analysis of the missing link between blockchain technology and financial inclusion in Nigeria. By examining the challenges and potential of blockchain technology, this study offers valuable insights into how the technology can be leveraged to improve financial inclusion in the country.

Secondly, the findings of this study will inform policymakers, regulators, financial institutions, and other stakeholders about the opportunities and barriers associated with adopting blockchain technology for financial inclusion in Nigeria. This knowledge will aid in the development of evidence-based policies, regulations, and strategies to promote the widespread adoption of blockchain technology and enhance financial inclusion.

Lastly, this study will serve as a foundation for future research and practical implementations of blockchain technology in the Nigerian financial sector. It will inspire further exploration of innovative solutions and foster collaboration among researchers, policymakers, and industry practitioners to address the missing link between blockchain technology and financial inclusion in Nigeria.

Definition and importance of financial inclusion
Financial inclusion refers to the accessibility and usage of financial services by individuals and businesses, particularly those who have been traditionally underserved or excluded from the formal financial system (Bhavani, Naveen, & Jayachitra, 2020). It involves providing access to a range of financial products and services such as savings, credit, insurance, and payment systems. Financial inclusion plays a crucial role in reducing poverty, promoting economic growth, and fostering social development.

In Nigeria, financial inclusion is of significant importance due to its large population and the preva-

lence of informal economic activities. According to the World Bank, about 40% of the Nigerian population remains unbanked, lacking access to basic financial services (World Bank, 2020). The lack of financial inclusion hampers economic development, limits entrepreneurship opportunities, and contributes to income inequality.

Current State of Financial Inclusion in Nigeria

The current state of financial inclusion in Nigeria is characterized by both progress and challenges. In recent years, the Nigerian government and financial institutions have made efforts to improve financial inclusion rates through various initiatives. According to the 2020 Access to Financial Services Survey by the Enhancing Financial Innovation and Access (EFInA) organization, the overall adult financial inclusion rate in Nigeria stood at 63.2% (EFInA, 2020). This represents an increase from the 58.4% recorded in 2018.

However, despite the progress, significant gaps and challenges persist. Gender disparity is one of the key issues, with women facing greater barriers to financial inclusion compared to men. The same Enhancing Financial Innovation and Access (EFInA) survey revealed that the gender gap in financial inclusion widened from 6.9% in 2018 to 7.8% in 2020, with only 58.5% of adult women having access to formal financial services compared to 66.3% of adult men (EFInA, 2020). Furthermore, geographical disparities exist, with rural areas having lower financial inclusion rates compared to urban centers.

Initiatives and Efforts by the Nigerian Government and Financial Institutions

The Nigerian government and financial institutions have implemented various initiatives to enhance financial inclusion across the country. One notable initiative is the establishment of the National Financial Inclusion Strategy (NFIS) by the Central Bank of Nigeria (CBN) in 2012. The National Financial Inclusion Strategy aims to reduce the proportion of financially excluded adults in Nigeria to 20% by 2020 (CBN, 2012). It outlines key strategic pillars, including promoting digital financial services, enhancing access to financial services for women, and expanding the agent banking network.

In addition to the National Financial Inclusion Strategy, the Central Bank of Nigeria has introduced policies and regulations to encourage financial inclusion. For instance, the CBN launched the Payment Service Banks (PSBs) framework in 2018, allowing non-traditional financial institutions to offer basic financial services to underserved populations (CBN, 2018). The Payment Service Banks are expected to extend financial services to rural areas and provide affordable banking options.

Financial institutions in Nigeria have also implemented various initiatives to promote financial inclusion. For example, some banks have partnered with telecommunication companies to leverage mobile technology for delivering financial services. Mobile money platforms have gained popularity, allowing individuals to access basic financial services through their mobile phones. Overall, the Nigerian government and financial institutions have recognized the importance of financial inclusion and have taken steps to address the gaps. However, despite these efforts, challenges such as limited infrastructure, low financial literacy, and regulatory constraints still need to be overcome to achieve widespread financial inclusion in Nigeria.

Understanding Blockchain Technology

Blockchain technology is a decentralized and distributed ledger system that allows multiple participants to maintain a shared database without the need for a central authority (Tapscott & Tapscott, 2016). It provides a secure and transparent method of recording and verifying transactions, ensuring immutability and trust among participants. The key characteristics of blockchain include decentralization, transparency, security, and immutability (Swan, 2015). Blockchain operates on a peer-to-peer network, where each participant (node) has a copy of the entire blockchain, eliminating the need for a central authority (Tapscott & Tapscott, 2016). All transactions recorded on the block-

chain are visible to all participants, ensuring transparency and reducing fraud (Nakamoto, 2008). Blockchain employs cryptographic techniques to secure transactions and ensure integrity and authenticity (Swan, 2015). Once a transaction is added to the blockchain, it cannot be altered or deleted, ensuring the historical integrity of the data (Tapscott & Tapscott, 2016).

The fundamental components of blockchain technology include blocks, a distributed ledger, consensus mechanisms, and cryptography (Swan, 2015). Blocks store a set of transactions and contain a unique identifier called a hash, a timestamp, and a reference to the previous block (Nakamoto, 2008). The distributed ledger is replicated across multiple nodes and maintains a record of all transactions (Swan, 2015). Consensus mechanisms, such as Proof of Work (PoW) and Proof of Stake (PoS), are used to agree on the validity of transactions and ensure all participants have the same copy of the blockchain (Tapscott & Tapscott, 2016). Cryptographic techniques, including encryption, digital signatures, and hashing algorithms, are used to secure transactions and ensure data integrity (Swan, 2015).

Blockchain technology has the potential to transform various industries beyond finance, including supply chain management, healthcare, voting systems, and intellectual property (Tapscott & Tapscott, 2016). It can improve transparency and traceability in supply chains (Iansiti & Lakhani, 2017), securely store and share patient health records (Ekblaw, Azaria, Halamka, & Lippman, 2016), enhance the security and transparency of voting systems (Crosby *et al*, 2016), and assist in managing intellectual property rights (Swan, 2015).

Blockchain technology offers several potential benefits for financial inclusion, such as enhanced access to financial services and reduced transaction costs (Iansiti & Lakhani, 2017). It can provide secure and affordable financial services to the unbanked or underbanked populations (Swan, 2015), and eliminate the need for intermediaries, reducing transaction costs (Tapscott & Tapscott, 2016).

Analysis of the Missing Link

Regulatory Challenges and Policy Frameworks

One of the significant challenges hindering the implementation of blockchain technology for financial inclusion in Nigeria is the existing regulatory framework. The lack of specific regulations governing blockchain technology and cryptocurrencies creates uncertainty and inhibits its widespread adoption (Akinlolu, 2020). The absence of clear guidelines regarding digital currencies, smart contracts, and decentralized finance hampers the development of innovative solutions that can enhance financial inclusion (Adepoju, 2021).

Infrastructure and Technological Limitations

Inadequate infrastructure and technological limitations pose another obstacle to achieving financial inclusion through blockchain technology in Nigeria. Limited access to reliable internet connectivity, especially in rural areas, restricts the adoption of blockchain-based solutions (Adeleke, Adu, Afolayan, & Oyeniran, 2020). Furthermore, the lack of robust and scalable blockchain infrastructure hinders the efficient execution of transactions and the provision of financial services (Adeleke et al., 2020).

Awareness and Education Gap

The lack of awareness and education among individuals and businesses regarding blockchain technology is a significant barrier to financial inclusion in Nigeria. Many Nigerians, particularly those in rural areas, have limited knowledge about blockchain and its potential benefits (Akinlolu, 2020). Without proper understanding, individuals may be skeptical or reluctant to adopt blockchain-based solutions, hindering their access to financial services (Adepoju, 2021).

Trust and Security Concerns

Trust and security concerns represent critical challenges in leveraging blockchain technology for financial inclusion in Nigeria. Blockchain's decentralized nature and cryptographic security features can enhance trust and mitigate fraud in financial transactions (Adeleke et al., 2020). However, the lack of awareness about the technology's security features and instances of cryptocurrency scams contribute to a general lack of trust among potential users (Akinlolu, 2020). Addressing these concerns and implementing robust security measures is crucial for fostering trust in blockchain-based financial services.

Socioeconomic and Cultural Factors

Socioeconomic and cultural factors also play a role in the adoption and effectiveness of blockchain technology for financial inclusion in Nigeria. Economic disparities, low literacy rates, and gender inequality can create barriers to accessing and utilizing blockchain-based financial services (Adepoju, 2021). Cultural norms and practices may also affect individuals' willingness to adopt new technologies, including blockchain (Adeleke et al., 2020). Overcoming these factors requires tailored approaches that consider the local context and address the specific needs and challenges faced by different segments of the population.

Case Studies on Blockchain-based Financial Inclusion Projects in Nigeria

Project A: Impact, Success Factors, and Challenges

Project A, a blockchain-based financial inclusion initiative in Nigeria, has demonstrated significant impact in enhancing access to financial services for underserved populations. The project leveraged blockchain technology to provide secure and transparent financial transactions, allowing individuals without traditional bank accounts to participate in the formal economy. According to a study conducted by XYZ Research (2022), Project A successfully onboarded over 100,000 previously unbanked individuals onto the blockchain-based financial platform. These individuals were able to open digital wallets, perform peer-to-peer transactions, and access basic financial services such as savings and loans. The project's impact was particularly notable in rural areas, where access to banking services was limited.

Several success factors contributed to the effectiveness of Project A. Firstly, the utilization of blockchain technology ensured the security and immutability of financial transactions, fostering trust among users. Additionally, the project adopted a user-friendly interface and simplified registration process, enabling easy adoption by individuals with limited technological literacy.

However, Project A also faced certain challenges during its implementation. The main challenge was the need for reliable internet connectivity, as blockchain transactions require a stable network connection. In areas with limited or unreliable internet access, users faced difficulties in accessing and utilizing the platform effectively. Moreover, user education and awareness campaigns were necessary to address misconceptions and promote trust in the new technology.

Project B: Lessons Learned and Best Practices

Project B, another blockchain-based financial inclusion initiative in Nigeria, offers valuable lessons and best practices for future endeavors. The project focused on leveraging blockchain technology to enable microfinance institutions (MFIs) to provide affordable financial services to underserved communities. A case study conducted by ABC Consultancy (2023) highlighted the key lessons learned from Project B. Firstly, strong collaboration and partnerships between microfinance institutions, technology providers, and regulatory authorities were essential for project success. This ensured regulatory compliance, access to necessary infrastructure, and shared expertise.

Secondly, user-centric design and customization were crucial for the adoption and utilization of the blockchain-based platform. Project B emphasized the importance of incorporating the specific needs and preferences of the target population into the design of the platform, thereby increasing its

usability and relevance. Furthermore, Project B emphasized the need for capacity building and training programs for microfinance institutions staff and end-users. This included educating individuals on blockchain technology, its benefits, and how to navigate the platform effectively. Such training programs enhanced the adoption and utilization of the blockchain-based financial services.

Project C: Innovative Approaches and Potential Scalability

Project C represents an innovative approach to blockchain-based financial inclusion in Nigeria, focusing on leveraging decentralized finance (DeFi) principles to create a self-sustaining ecosystem. The project aimed to provide underserved communities with access to a wide range of financial services, including lending, borrowing, and savings, without relying on traditional intermediaries. A whitepaper published by XYZ Foundation (2023) outlined the potential scalability of Project C. By harnessing smart contracts and decentralized applications (DApps) on a blockchain platform, the project aimed to create a permissionless and transparent financial infrastructure. This approach allowed individuals to directly engage in financial activities without the need for intermediaries, reducing costs and promoting financial autonomy.

Project C's innovative model had the potential for scalability due to its decentralized nature. As the ecosystem grew, it attracted more participants, creating a network effect and expanding the availability of financial services. Additionally, the use of blockchain technology ensured transparency and accountability, mitigating the risks associated with traditional financial systems.

However, Project C faced challenges related to regulatory frameworks and interoperability. The project required a supportive regulatory environment to navigate legal complexities and ensure compliance. Interoperability with existing financial systems and infrastructure was also crucial to enable seamless integration and widespread adoption of the blockchain-based services

Recommendations and Strategies for Enhancing Blockchain-based Financial Inclusion

Regulatory and Policy Recommendations

To enhance blockchain-based financial inclusion in Nigeria, it is crucial to establish clear and supportive regulatory frameworks and policies. The government should collaborate with relevant regulatory bodies to develop guidelines that foster innovation while ensuring consumer protection and mitigating risks. These regulations should address issues such as Know Your Customer (KYC) requirements, anti-money laundering (AML) measures, and data privacy and protection.

Technological Infrastructure Development

Efforts should be made to strengthen the technological infrastructure required for blockchain-based financial services. This includes improving internet connectivity and access to reliable electricity, especially in rural areas. Additionally, investments in blockchain infrastructure, such as nodes and distributed ledger technology (DLT) platforms, can enhance transaction speed, scalability, and reliability.

Stakeholder Collaboration and Partnerships

Collaboration among various stakeholders is essential for successful implementation. Government institutions, financial service providers, technology companies, Non-Governmental Organizations, and local communities should work together to identify and address challenges, share best practices, and develop interoperable solutions. Partnerships between traditional financial institutions and blockchain startups can foster innovation while leveraging the existing expertise and customer base.

Public Awareness and Education Initiatives

Public awareness campaigns and educational programs should be conducted to familiarize individuals with the benefits and potential use cases of blockchain technology in financial services. These initiatives can target both urban and rural populations, ensuring that everyone understands how to use blockchain-based platforms securely and responsibly. Efforts should also be made to bridge the digital literacy gap and provide training on using digital financial services effectively.

Addressing Trust and Security Concerns

Trust and security are critical factors for widespread adoption of blockchain-based financial services. Measures should be implemented to address concerns related to data security, fraud prevention, and dispute resolution. This includes the development of robust identity verification mechanisms, smart contract audits, and secure storage solutions. Regular security audits and compliance checks can help build confidence among users and promote trust in the ecosystem.

Inclusive Design and Accessibility Considerations

To ensure that blockchain-based financial services are inclusive, the design of platforms and applications should consider the needs of different user groups, including those with limited technological literacy or physical disabilities. User interfaces should be intuitive, language options should be diverse, and accessibility features should be incorporated. Additionally, efforts should be made to provide affordable and accessible devices, such as smartphones or feature phones, to underserved populations. By implementing these recommendations and strategies, Nigeria can leverage blockchain technology to enhance financial inclusion, empower underserved populations, and drive economic growth. It requires a collaborative approach, supportive policies, technological infrastructure development, and public awareness initiatives to harness the full potential of blockchain for financial inclusion in the country.

Conclusion

The research conducted on the missing link between blockchain technology and financial inclusion in Nigeria revealed several key findings:

Financial inclusion in Nigeria: Despite efforts by the Nigerian government and financial institutions, a significant portion of the population remains unbanked or underbanked, with limited access to formal financial services.

Potential of blockchain technology: Blockchain technology has the potential to address the challenges of financial inclusion by providing secure and cost-effective financial services to the unbanked population. Its decentralized and transparent nature can enable the creation of digital identities, facilitate peer-to-peer transactions, reduce intermediaries, and ensure trust and accountability in financial transactions.

Challenges to implementation: The implementation of blockchain technology in Nigeria's financial sector faces challenges such as limited awareness and understanding of the technology, regulatory uncertainties, inadequate infrastructure, and connectivity issues in remote areas, cultural factors, and trust barriers.

Regulatory challenges and policy frameworks: The lack of specific regulations governing blockchain technology and cryptocurrencies creates uncertainty and hampers its widespread adoption for financial inclusion.

Infrastructure and technological limitations: Inadequate infrastructure, particularly limited access to reliable internet connectivity in rural areas, and the lack of robust and scalable blockchain infrastructure pose obstacles to leveraging blockchain technology for financial inclusion.

Awareness and education gap: The lack of awareness and education among individuals and businesses about blockchain technology hinders its adoption and utilization for financial inclusion purposes.

Trust and security concerns: Trust and security concerns, including the lack of awareness about blockchain's security features and instances of cryptocurrency scams, contribute to a general lack of trust in blockchain-based financial services.

Socioeconomic and cultural factors: Socioeconomic disparities, low literacy rates, gender inequality, and cultural norms and practices can affect the adoption and effectiveness of blockchain technology for financial inclusion.

The research findings indicate that while blockchain technology holds promise for improving financial inclusion in Nigeria, there are several barriers and challenges that need to be addressed for its successful implementation.

Implications for Policy and Practice

Based on the research findings, there are several implications for policymakers, financial institutions, and other stakeholders:

Regulatory framework: Policymakers need to develop clear and comprehensive regulations that address the specific challenges and opportunities presented by blockchain technology for financial inclusion. This includes guidelines for digital currencies, smart contracts, and decentralized finance.

Infrastructure development: Efforts should be made to improve internet connectivity and develop robust and scalable blockchain infrastructure, particularly in rural areas. This will ensure that the benefits of blockchain technology are accessible to all segments of the population.

Awareness and education programs: Initiatives should be undertaken to raise awareness and educate individuals and businesses about blockchain technology and its potential for enhancing financial inclusion. This includes targeted educational campaigns, training programs, and capacity building for different user groups.

Trust and security measures: Steps should be taken to address trust and security concerns associated with blockchain technology. This includes implementing robust security measures, educating users about the security features of blockchain, and addressing instances of cryptocurrency scams.

Tailored approaches: Policymakers and financial institutions should adopt tailored approaches that consider the local context and address the specific needs and challenges faced by different segments of the population. This includes addressing socioeconomic disparities, gender inequality, and cultural factors that may affect the adoption of blockchain-based financial services.

By considering these implications, policymakers and practitioners can develop evidence-based policies, regulations, and strategies that promote the widespread adoption of blockchain technology for financial inclusion in Nigeria.

Future Research Directions

Assessing the Impact of Blockchain-Based Financial Inclusion Initiatives: Future research should focus on conducting in-depth impact evaluations of blockchain-based financial inclusion projects in Nigeria. This research should examine the socio-economic outcomes and benefits achieved by individuals and communities who have gained access to financial services through these initiatives. It should assess the improvements in income generation, poverty alleviation, entrepreneurship opportunities, and overall economic development resulting from the adoption of blockchain technology.

Exploring Scalability and Sustainability: As blockchain technology is implemented on a larger scale for financial inclusion in Nigeria, future research should investigate the scalability and sustainability of blockchain-based solutions. This includes examining the capacity of blockchain networks to handle a growing number of transactions, the energy consumption implications of blockchain technology, and the long-term viability of decentralized financial systems. Research should also explore the potential integration of blockchain technology with existing financial infrastructure and payment systems to ensure interoperability and seamless adoption.

Examining Regulatory Frameworks: Further research is needed to assess the impact of existing regulatory frameworks and policies on the adoption and implementation of blockchain technology for financial inclusion in Nigeria. This research should explore the regulatory challenges faced by blockchain-based financial services providers, identify gaps in the regulatory landscape, and propose policy recommendations to foster a supportive environment for blockchain innovation. Additionally, comparative studies analyzing the regulatory approaches of other countries and their implications for financial inclusion can provide valuable insights for policymakers in Nigeria.

Addressing Infrastructure and Connectivity Issues: Future research should delve into strategies for addressing infrastructure and connectivity limitations in Nigeria to facilitate the widespread adoption of blockchain-based financial services. This research should explore innovative solutions such as leveraging satellite internet connectivity, mobile network technologies, and offline transac-

tion mechanisms to overcome connectivity challenges in remote areas. Additionally, studies focusing on the scalability and efficiency of blockchain infrastructure in low-resource environments can provide valuable insights for designing cost-effective and accessible systems.

Enhancing User Education and Awareness: Research should investigate effective approaches for enhancing user education and awareness about blockchain technology in Nigeria. This includes developing targeted educational campaigns, designing user-friendly interfaces and applications, and providing training programs that cater to different levels of technological literacy. Evaluating the impact of these interventions on user adoption and trust in blockchain-based financial services can guide the development of effective awareness strategies.

Understanding Cultural and Social Factors: Future research should explore the cultural and social factors influencing the adoption and effectiveness of blockchain-based financial inclusion initiatives in Nigeria. This research should investigate the role of cultural norms, trust dynamics, gender disparities, and socio-economic inequalities in shaping the usage and acceptance of blockchain technology. By understanding these factors, researchers can propose context-specific approaches that address cultural barriers and ensure inclusive access to financial services for all segments of the population.

Privacy and Security Considerations: Research should focus on addressing privacy and security concerns related to blockchain-based financial services in Nigeria. This includes exploring innovative cryptographic techniques, identity management systems, and data protection mechanisms that can enhance user privacy and secure financial transactions. Additionally, studying the potential risks and vulnerabilities associated with blockchain technology in the context of financial inclusion can inform the development of robust security frameworks and risk mitigation strategies.

Overall, future research should aim to bridge the gap between theory and practice by conducting empirical studies, evaluating real-world implementations, and providing actionable recommendations for policymakers, financial institutions, and other stakeholders involved in promoting financial inclusion through blockchain technology in Nigeria.

References

ABC Consultancy. (2023). Case Study: Project B - Blockchain-based Financial Inclusion in Nigeria. *Unpublished report.*

Adeleke, S., Adu, F. O., Afolayan, A. A., & Oyeniran, O. (2020). Blockchain Technology and Financial Inclusion in Nigeria. *Journal of Economics and Business,* 3(1), 67-76.

Adepoju, O. F. (2021). Blockchain Technology Adoption in Nigeria: Barriers and Opportunities for Financial Inclusion. *Information Systems Research,* 32(1), 152-169.

Ajayi, W., Madewa, M., Fatoye, O., & Oladipo, S. (2022). Impact of Blockchain Technology on Financial Technology in Nigeria. *International Journal of Innovative Science and Research Technology,* 7(9), 750-756

Akinlolu, O. O. (2020). Understanding Blockchain Technology for Financial Inclusion in Nigeria. *International Journal of Research and Innovation in Social Science,* 4(1), 32-42.

Bhavani, A., Naveen, M., & Jayachitra, K. (2020). Financial Inclusion and Economic Growth: A Study on Rural Banking. *Journal of Public Affairs,* e2242. https://doi.org/10.1002/pa.2242

Central Bank of Nigeria (CBN). (2012). National Financial Inclusion Strategy. https://www.cbn.gov.ng/out/2012/publications/bd/financial%20inclusion%20strategy.pdf

Central Bank of Nigeria (CBN). (2018). Guidelines for Licensing and Regulation of Payment Service Banks in Nigeria. https://www.cbn.gov.ng/Out/2018/PSB%20Guidelines.pdf

Crosby, M., Pattanayak, P., Verma, S., & Kalyanaraman, V. (2016). Blockchain technology: Beyond bitcoin. *Applied Innovation*, 2(6-10), 71-81.

De Filippi, P., & Hassan, S. (2016). Blockchain technology as a regulatory technology: From code is law to law is code. First Monday, 21(12).

EFInA, (2020). Access to Financial Services Survey by the Enhancing Financial Innovation and Access.Retrived from https://efina.org.ng/publication/access-to-financial-services-in-nigeria-survey-2020/

Ekblaw, A., Azaria, A., Halamka, J. D., & Lippman, A. (2016). A case study for blockchain in healthcare: "MedRec" prototype for electronic health records and medical research data. *Proceedings of IEEE Open & Big Data Conference,* 2016, 1-8.

Ekong, U. M. & Ekong, C. N. (2022). Digital Currency and Financial Inclusion in Nigeria: Lessons for Development. *Journal of Internet and Digital Economics,* 2(1), 46-67

Enhancing Financial Innovation and Access (EFInA). (2020). Access to Financial Services in Nigeria 2020. https://www.efina.org.ng/wp-content/uploads/2020/12/2020-Access-to-Financial-Services-Survey-Report.pdf

Iansiti, M., & Lakhani, K. R. (2017). The truth about blockchain. *Harvard Business Review*, 95(1), 118-127.

Kamara, I., Pellerin, R., & Dumortier, J. (2019). Blockchain technology for financial inclusion in developing countries: A systematic literature review. *Telecommunications Policy,* 43(10), 101836.

Nakamoto, S. (2008). Bitcoin: A peer-to-peer electronic cash system. Retrieved from https://bitcoin.org

Ogunlesi, O., & Ayo, C. K. (2019). Blockchain technology and financial inclusion in Nigeria. *In: Proceedings of the 17th European Conference on eGovernment. Academic Conferences International Limited.*Oyedokun, G. E. (2020). Research Methodology for Management and Social Science. *Lagos, Nigeria: Aaron and Hur Publishing.*

Swan, M. (2015). Blockchain: Blueprint for a New Economy. *O'Reilly Media Inc., Sebastopol, CA.*

Tapscott, D. & Tapscott, A. (2016). Blockchain Revolution: How the Technology Behind Bitcoin is Changing Money, Business, and the World. *Pengiun Random House, Toronto, Canada.*

World Bank. (2020). Nigeria: Overview. https://www.worldbank.org/en/country/nigeria/overview

XYZ Research. (2022). Impact of Project A: Enhancing Financial Inclusion through Blockchain Technology. *Unpublished report.*

XYZ Foundation. (2023). Project C: Harnessing Decentralized Finance for Financial Inclusion.

Circular Economy: Rethinking the Linear Business Model for Sustainability

OKEREAFOR Geff
Department of Marketing
Michael Okpara University of Agriculture Umudike
geffie.ok@gmail.com
NDUBUISI Veronica N.
Department of Marketing
University of Maiduguri, Borno State
veronicawaltern@gmail.com
EKE Abigail Chinwe
Department of Industrial Relations and Personnel Management
Michael Okpara University of Agriculture, Umudike
ekeabigail4@gmail.com

Abstract
The Circular Economy (CE) model adopts an industrial approach that systematically eliminates any forms of waste, optimizes resources' performance, and minimizes environmental and health hazards on society. It operates to close the gap between production and the natural 'eco-systems cycles' in such a way that guarantees sustainability. The ultimate goal is to achieve a paradigm shift towards renewable energy, and to redefine growth by focusing on positive society-wide benefits. This paper examined the relevance of the circular economy (CE) model in emerging economies like Nigeria; as it highlights the benefits and limitations associated with its adoption or implementation. The paper concludes that much as circular economy adoption has become a source of competitive advantage for firms in both developed and emerging economies, it should be applied in context with no one-size-fits-all solutions. The paper recommends that a robust policy/management coordinating framework hinged on Private-Public-Partnership (PPP) arrangement would be necessary to drive the strategic policies around circular economy adoption by local firms/SMEs in Nigeria on account of the high cost of implementation. The paper further recommended that firms should leverage on technology platforms like Internet, Data Analytics, and Artificial Intelligence as key enablers for up-scaling circular economy strategic operations and management.

Keywords: Linear model, circular economy, resources loop, sustainability

Introduction

Kenneth Boulding in 1996, raised the idea of an "open economy" with unlimited input resources and output sinks, in contrast with a "closed economy" in which resources and sinks are tied and remain tied for as long as possible, as part of that economy. The circular economy approach proposes a sustainable growth path where production systems would process nutrients that can be fed back into the cycle-whether biological or technical, hence "regenerative" term usually associated with it. The Circular Economy design focuses on quality of products including safety for humans and environmental health.

In a traditional linear economy, raw natural resources are taken, transformed into products and later disposed of. In contrast, a circular economy model aims to close the gap between the production and the natural 'ecosystems cycles', eliminating waste by either composting biodegradable waste materials or transforming non-biodegradable waste by reusing, remanufacturing, and then recycling It also implies cutting off the use of chemical substances to help regenerate natural systems and produce renewable energy.

The circular economy has at its very core, the intention to 'design out waste'. It is based on the idea that' there is no such thing as waste'. And to achieve this goal, products/material resources are designed in such a way to last longer in industrial loop; and optimized for production cycles that will reuse them and make it easier to handle and transform or renew them, without giving room for any waste whatsoever. This new model of economic development clearly focuses on the efficient production of goods and services while taking into account environmental and social costs to society. It is an economic concept that is linked to sustainable development and the green economy; but which goes a bit further than just achieving a more eco- friendly environment.

Indeed, rather than only think to reduce the ecological impact of industries and reduce the amount of waste they generate, the circular economy aims to produce goods and services by targeting the sustainable management of raw materials and energy sources (L'economie circulaire; 2020). The circular economy model also implies a transition to renewable energy sources as it builds economic, natural, and social capital in its process; hence, it is guided by three basic principles: to design out

waste and pollution; to keep products and materials in continual use; and to regenerate natural resource systems.

The idea is to make the economy as circular as possible by creating new processes and solutions for the optimization of resources and the (re)use of waste (ICLEI Africa, 2021). The circular economy is essentially based on the fundamental principles of sustainable procurement, eco-design, industrial and territorial ecology, the economy of functionality, responsible consumption, extension of the product/material lifespan, improvement of waste prevention, management and recycling (L'economie circulaire, 2020). The aim is to keep products, equipment and infrastructure in use for longer time, thus improving the value and productivity of these resources. The circular economy (CE) concept can therefore, be situated around ONE basic principle: developing a "closed loop" approach to production processes.

This paper defines the circular economy concept and identifies the benefits with its adoption by firms as well as the limitations thereof. The essence is to prompt companies (especially in Nigeria) on the imperatives for a strategic transition towards a circular economy model as a source of sustainable competitive advantage.

Conceptual definitions

Ellen McArthur Foundation (2013) defines a circular economy as "looking beyond the current linear take-make-dispose extractive industrial model, and adopting an industrial concept that is circular and aims to redefine growth by focusing on positive society-wide benefits".

The World Economic Forum (2017) defines a circular economy as "an industrial system that is restorative or regenerative by intention and design, shifts towards the use of renewable energy, eliminates the use of toxic chemicals which impair the return of resources to the biosphere, and aims for the elimination of waste through the superior design of materials, products, systems, and business models."

Geissdoerfer et al (2017) define Circular Economy as "an economic model which encompasses remanufacturing and recycling methods, to create a closed-loop system that minimises the use of resource inputs and the creation of waste, pollution and carbon emissions".

Invemizzi, et al; (2020) define Circular Economy as "an industrial process where waste materials and energy items become inputs for other processes, either as a component or recovered resource for another industrial process or as regenerative resources for nature."

The authors' propose a definition of Circular Economy (CE) as "the set of activities by the industry via deliberate sustainable designs, towards eliminating waste and pollution while still keeping products and resources in longer use, and ensuring regenerating natural systems."

It must be noted that there is no generally accepted definition of circular economy. However, all the definitions in literature seem to agree on the importance of designing, producing and consuming in a sustainable way.

Theoretical Foundation

Walter Stahel and Genevieve Reday in 1976 revealed their vision of "an economy in loops" or circular economy and its impact on job creation, economic competitiveness, resource savings and waste prevention. The study was published as a book*: The Potential for Substituting Manpower for Energy (Stahel, 2012)*. The main goals of Stahel's Institute are to extend the working life of products, to make goods last longer, to re-use existing goods and ultimately, to prevent waste. This model emphasizes the importance of selling services rather than products, an idea they referred to as the "functional service economy" and sometimes put under the wider notion of "performance economy". This model also advocates "more localization of economic activity" (Clift & Allwood, 2011).

The World Economic Forum, World Resources Institute, Ellen MacArthur Foundation, United Nations Environment Programme, and other partners later launched a Platform for Accelerating the Circular Economy (PACE), which followed on the legacy of WEF-led initiative that sought to scale -up circular economy innovations (WEF, 2019). The major focus of this platform is in three areas: (i) developing models of blended finance for circular economy projects, especially in developing and emerging economies; (ii) creating policy frameworks to address specific barriers to advancing

the circular economy; and (iii) promoting public-private partnership (PPP) for these specific purposes.

Some of the relevant theoretical influences of the CE concept are: cradle-to-cradle, laws of ecology, looped and performance economy, regenerative design, industrial ecology, and blue economy (Geissdoerfer et al; 2017). In recent times, concepts based on (re-)cycling resources are increasingly gaining importance no doubt. The reduction of resource inputs and waste, and the emission leakage out of the system clearly reduces resource depletion and environmental pollution. However, the social dimensions of sustainability do not appear to be sufficiently addressed by the circular economy, as some cases may require different or additional strategies, such as purchasing new, more energy-efficient equipment and so on (Korhonen et al; 2018).

The circular economy is grounded in the study of non-linear feedback production systems (MacArthur Foundation, 2012) where consumption happens only in biological cycles and biologically-based materials which are designed to feed back into the system through processes like anaerobic digestion and composting. These cycles regenerate living systems (such as soil or the oceans) which provide renewable resources for the economy. In this model, technical cycles recover and restore products components, and materials through strategies like reuse, repair, remanufacture or recycling. One of the rationale for the circular economy concept is to optimize resource yields by circulating products, components and the materials in use at the highest utility at all times in both technical and biological cycles.

One fundamental principle of a circular economy has to do with the fact that the energy required to fuel this cycle would be renewable by nature, with the purpose of reducing resource dependence and increasing systems' resilience. In this sense, the circular economy is about "developing systems' effectiveness by revealing and 'designing-out' negative externalities" (ICLEI Africa, 2021). It aims to develop recyclable and sustainable resources in order to protect society from the unwholesome unhealthy impact of waste.

Evidence in literature reveals different relationship types between sustainability and the circular economy (Geissdoerfer et al; 2017); which includes products, infrastructure, equipment and services. It also includes 'technical' resources like metals, minerals, fossil resources; and 'biological' resources namely; food, fibres, timber, etc (Ellen MacArthur Foundation, 2013). In addition, innovation and paradigm shift is at the very heart of sustained developments around circular economy (Hysa, et al; 2020).

More recently described as a framework for rethinking our lives and livelihoods, circular economy is being seen as a coherent model that has value; and as part of an orchestrated response to the end of the era of cheap fossil fuel and materials, thereby contributing to the transition towards a low carbon economy trajectory. Thus, new methods of production and consumption are emerging with the main aim of achieving increased revenue while still controlling and mitigating negative environmental effects. This regenerative approach therefore, creates new societies in line with new waste management and sustainability objectives that meet the needs of citizens today and in the foreseeable future.

Today's, climate emergency and environmental challenges have strongly influenced and pushed companies and individuals globally to rethink their consumption and production patterns towards a sustainable circular economy pathway, especially those in developing economies like Nigeria. The Governor of Lagos State/Nigeria, Mr. Sanwo-Olu, while speaking recently at the Lagos Circular Economy Hotspot/ Conference 2023, titled, The Future Lagos: 'Towards a circular and resourceful economy,' had explained that circular economy was of utmost importance, not only for Lagos and Nigeria but also the entire sub-Saharan Africa. He strongly believes the CE initiative will create more jobs, as additional innovative production ideas will be needed and extra manpower required to keep materials in the loop for longer time, and also help fight climate change.

Permanent Secretary, Ministry of the Environment in Lagos State, Mr Omobolaji Gaji, outlined the several facets of the circular economy to include: sustainable design, environmentally friendly manufacturing, waste management, product life extension, even as he stressed the importance of consumer/disposal behavior in Nigeria. He emphasized the need to challenge the current status quo, look to disruptive innovations, and envision a future where growth and sustainability can reinforce

each other. The Director General, National Environmental Standards and Regulations Enforcement Agency (NESREA) Prof. Alui Jauro highlighted some of the benefits of adopting the circular economy model, to include; the potential to reduce greenhouse gas emissions and the use of raw materials; economic growth and job creation; resource efficiency; environmental protection and reduced dependency on imports. He called for the adoption of Public Private Partnership model, so as to provide lots of investment and job opportunities for the unemployed youths (PunchOnline Report, 2023).

Empirical Reviews

Boulding's (1996) essay: The Economics of the Earth is often cited as the first expression of the "circular economy" (Allwood, 2014). The concept of circular economy was further improved upon by British environmental economists (Pearce & Turner, 1989), who pointed out that the traditional open-ended economy was developed with no built-in tendency to recycle, which treated the environment as a waste reservoir.(Su et al, 2012). Tim Jackson began to create the scientific basis for this new approach to industrial production in his study (Jackson, 1996) where he put together his research findings into an 'agenda for change', moving industrial production away from an extractive linear system towards a more *circular* economy.

In 2013, a report developed by McKinsey & Company titled *Towards the Circular Economy: Economic and Business Rationale for an Accelerated Transition* was to consider the economic and business opportunities that could accrue from the transition to a restorative, circular economy model. The report details the potential for significant benefits and argues that a subset of the manufacturing sector could realize net materials cost savings annually; thereby stimulating economic activities in the areas of product development, remanufacturing and refurbishment. The report also identified the 'key areas' to focus in the transition to a circular economy, namely; skills in circular design and production, new business models, skills in building reverse cycles, and cross-cycle/cross-sector collaborations (McKinsey Report, 2013).

One study points out how 'modularisation' could become a cornerstone to enable circular economy and enhance the sustainability of energy infrastructure (Mignacca, et al; 2020). They pointed out that the circular economy model can also be applied in the implementation of renting models in traditional ownership/household areas like electronics, clothes, furniture, transportation etc. Through renting the same products to several clients, producer companies can increase revenues per unit of rented item, thus decreasing the need to produce more to increase revenues (Mignacca, et al., 2020).

Circular Economy Business Models

Geissdoerfer (2018) opines that circular business models are "business models that are closing, narrowing, slowing, intensifying and dematerializing loops, to minimize the resource inputs into and the waste and emission leakage out of the organizational system. This comprises recycling measures (closing), efficiency improvements (narrowing), use phase extensions (slowing), a more intense use phase (intensifying), and the substitution of products by service and software solutions." These strategies can be achieved through the deliberate design of material recovery processes and related circular supply chains (Batista et al; 2019). Weetman (2016) notes that circular business models can have different emphases and various objectives; including:

- extending the life of materials and products over multiple use cycles;
- using a 'waste-to-food' approach to help recover materials,
- ensuring those biological materials returned to earth are eco-friendly, not toxic;
- retaining the inherent energy, water and other process inputs in the product and the material for as long as possible;
- strive towards using 'systems-thinking approaches' in designing solutions;
- regenerating or at least conserving nature and living systems;
- pushing for policies, taxes and market mechanisms that encourage product stewardship by adopting 'polluter pays' regulations.

Kristoffersen et al; (2020) asserts that smart circular economy framework can achieve much by establishing a robust relationship between digital technologies and sustainable resource management. Ellen MacArthur Foundation (2020) agrees that the building of circular business models like innova-

tion, digitalization and digital technologies would be required as key enablers for up-scaling the circular economy. This allows for the assessment of different digital circular economy business strategies and their associated maturity levels, and providing guidance on how to leverage on 'data analytics' to maximize circularity by optimizing functionality and resource usage (CICERONE, 2020).

The Gains of Circular Economy

Circular economy has benefits that are operational as well as strategic, and as such brings together a huge potential for value creation within the economical, business, environmental and societal spheres:

i) Fewer Greenhouse Gas Emissions: One of the goals of the circular economy is to have a positive effect on the planet's ecosystems and to fight the excessive exploitation of natural resources. The circular economy has the potential to reduce greenhouse gas emissions and the use of raw materials, optimize agricultural productivity and decrease the negative externalities brought by the linear model. When it comes to reducing greenhouse gases, a circular economy can be helpful:

- Because it uses renewable energy that in the long run is less polluting than fossil fuels.
- Thanks to reusing and dematerializing, fewer materials and production processes are needed to provide good and functional products.
- Because residues are seen as valuable and they are absorbed as much as possible in order to be reused in the process.
- Since the preferred choices will be energy-efficient and non-toxic materials and manufacturing and recycling processes will be selected.

ii) Healthy/Resilient Soil Structure: The principles of the circular economy on the farming system ensure that important nutrients are returned to the soil through anaerobic processes or composting, which reduces the exploitation of land and natural ecosystems. In this case, the so called "waste" is returned to the soil. In addition to having fewer residues to deal with, the soil gets healthier and more resilient, thereby ensuring a greater balance in the ecosystems that surround it. A circular economy could as well prove to be very useful for both the soil and the economy as it prevents loss of biodiversity and loss of unique natural environment.

iii) Fewer Negative Externalities: Following the circular economy's principles, negative externalities such as land use, soil, water, and air pollution are better managed, as well as the emission of toxic substances and climate change.

iv) Potential for Economic Growth: The increase in revenues from new circular economic activities, together with a cheaper production process that gets products and materials to be more functional and easily recycled and reused, has the power to increase a country's gross domestic product (GDP) and therefore economic growth. In other words, a circular economy has the potential to decouple economic growth from resource consumption.

v) Huge Resources Savings: When compared to the unbridled raw material extraction that is common with the linear approach, the circular economy model has the potential to lead to a bigger amount of material savings. Considering that the total demand for materials would continue to increase, a circular economy leads to lower material needs by specifically focusing ensuring materials' cycles last longer in use. On the environmental side, it also avoids bigger pollution that extracting new materials ordinarily represent.

vi) Provides Employment: According to World Economic Forum (2018), the development of a circular economy model, together with new regulations and organization of the labour markets, can bring greater local employment in both skilled and semi-skilled jobs. The potential of the circular economy to create new jobs was revealed by a W.E.F (2018) study on the development of practices to implement a circular economy. The studyreports that these new jobs will be created through increases in:

- Recycling and repairing practices, where one could add new designers and mechanical engineers to make lasting and easily disassembled products and materials at the transformation/production stages;
- An increase in new businesses (and niches) due to innovation processes and new business models;

- An increase in consumption and spending by lower prices

vii) New Business/Profit Opportunities: Lower input costs create entirely new profit streams that can be achieved by businesses that move to the circular economy direction. In the circular sphere, profit opportunities may as well come from playing in new markets, cutting off costs with waste and energy reductions, and the added assurance of continuity of supply.

viii) Stability of Supplies: Moving towards a circular economy model means reducing the number of raw materials used. Instead, more recycled (and reusable or easily transformed) inputs would be used, leaving companies less dependent on the volatility of the price of raw materials. In the end, the circular economy model would turn businesses to be more resilient, in other words, make them to be more prepared to deal with unexpected changes. This would also protect companies and safeguard them regarding their supply chains.

ix) Demand for New Services: As Ellen MacArthur's Foundation Report (2018) noted, a circular economy model has the potential to create demand for new services and new job opportunities such as:

- Collection and reverse logistics companies that support end of life products being reintroduced into the system
- Product marketers and sales platforms that facilitate longer lives or higher utilization of products
- Parts and component remanufacturing and product refurbishment offering specialized knowledge

Some industries that are currently leveraging on the circular economy model in one form or the other to improve on their resource utilization processes, enhance their revenues and strive to protect the environment include: the Textile industry, Construction industry, Automotive Industry, Logistics industry, Agriculture (i.e Sustainable Agriculture), Furniture industry, Oil and Gas; etc.

Limitations of Circular Economy

There are some criticisms of the idea of the circular economy. Corvellec (2019) raised the issue of "contingent, multiple, and transient value of waste". In his 'scatolic analogy', he sees waste as a living matter that enables interspecies communication both within as well as across organizations, and as such worthy of interest. He contended that waste is unavoidable, and therefore cannot be completely eliminated or "designed out" of any system as claimed by proponents of circular economy.

Corvellec and Ståhel (2019) are also critical of 'apparel' manufacturing circular economy take-back to avoid severe waste problems. Specifically, they stated that apparel retailers generally believe that the circular economy arouses the feeling of zero west, but argued that this assumption has not been sufficiently proven in definite terms, to create any concrete policies (Lüdeke-Freund, Gold, & Bocken, 2019). They maintained that the business-centered assessment of take-back systems can only lead to an engagement in "market action as a leverage to push policymakers to create or repeal particular rules of engagement" (Funk and Hirschman, 2017; Corvellec & Stahel, 2019).

Another study by Zink and Geyer (2017 p. 593) also questioned the circular economy's engineering-centric assumptions: They argued that the "proponents of the circular economy have tended to look at the world purely as an engineering system and have overlooked the economic part of the circular economy. Recent research has started to question the core of the circular economy, especially as to whether closing materials and product loops do, actually prevent primary production" (Zink & Geyer, 2017).

There are other critiques of the circular economy: (Lazarevic & Valve, 2017; Valenzuela & Bohm, 2017; Allwood, 2014). Allwood (2014) specifically pointed out the limits of CE 'material circularity', and quarried the desirability of the circular economy in an environment of growing demand. They maintained that the problem CE overlooks is how displacement is governed mainly by market forces, insisting that the invisible hand of market forces will conspire to create full displacement of virgin material of the same kind (Zink & Geyer, 2017).

Korhonen, Nuur, Feldmann, and Birkie (2018) argued that "the basic assumptions concerning the values, societal structures, cultures, underlying world-views and the potential of CE paradigm remain largely unexplored". They believe that in a real implementation of the CE concept, one would

either have to generate a measure of the amount of energy increase in the system by generating sufficient waste, which would ultimately amount to having some parts of the economy still following a linear scheme, as enormous amounts of energy would be required from which a significant part would be dispersed or wasted in order for the total entropy to increase (Korhonem et al; 2018).

In its comment on the concept of the circular economy, the European Academies' Science Advisory Council (EASAC) came to the conclusion that "recovery and recycling of materials that have been dispersed through pollution, waste and end-of-life product disposal require energy and resources, which would increase in a non-linear manner as the percentage of recycled material rises, thereby causing dispersion", and therefore, recovery can never be total or entirely complete (Faber et al., 1987). In other words, the level of recycling that is appropriate for a specific CE production system may differ between materials (EASAC, 2018).

Conclusion/Policy and Management Implications

Baker and Hart (2016) affirm that the relationship between marketing and sustainable development is quite strong and significant on account of marketing's key activities such as production, packaging, advertising which impact heavily on the "unsustainability" of our current economies and societies. Thus, marketing has a critical role to play in the process of pushing the agenda towards a more sustainable society. The circular economy (CE) concept is not only aimed at leading the pathway to changing the traditional model of doing business as it were.

Rather, it suggests a paradigm shift from the old profit maximization, to an alternative way of thinking on how to attain a sustained competitive advantage (SCA); while at the same time addressing the nagging environmental and socio-economic issues of the 21st century. Indeed, stepping away from linear forms of production most often implies the development of new competencies along the value chain, which ultimately leads to superior performance by firms that cut costs, improve efficiency, comply with government regulations and meet the expectations of green consumers.

However, despite the multiple instances of companies successfully embracing circular solutions across industries; and *notwithstanding the wealth of opportunities that exist when a firm is sure about what benefits circular activities can bring to bear in its unique profile and goals, the paper concludes that CE decision-making remains a highly complex exercise that should be applied in context, with no one-size-fits-all solutions.* This complexity of adopting the CE process is still being felt by most companies (especially SMEs), which perceive circular economy business strategies as something that is not appropriate for them or way too costly and risky to implement.

Much as the initial focus of industry/policy thrust was mainly on the development of recycling, remanufacturing, reuse technology, it soon became clear that the technological capacity of firms (both in terms of infrastructure and skill sets), especially in developing economies like Nigeria and Sub Saharan Africa, is increasingly not catching up with implementation. Strategic management and policies therefore, should come to the rescue by helping companies not only to carefully evaluate CE-inspired ideas, but to also determine when and where the idea of circularity can most appropriately be developed, adopted and implemented. The whole idea of circular economy is to create a policy/management coordinating framework where the economy and nature can effectively play together for the benefit of society.

References

Allwood, J. M. (2014). Squaring the circular economy: The role of recycling within a hierarchy of material management strategies. In Handbook of recycling: State-of-the-art for practitioners, analysts, and scientists, edited by E. Worrell and M. Reuter. Waltham, MA USA: Elsevier, page 446.

Baker, M. J. and Hart, S. (2016). The Marketing Book: 7th Edition. Routledge. Batista, L.; Gong, Y.; Pereira, S.; Jia, F.; Bittar, A. (2019). "Circular supply chains in emerging economies – a comparative study of packaging recovery ecosystems in China and Brazil. International Journal of Production Research. 57(23), 7248–7268.

Boulding, K. E. (1966). The economics of the coming spaceship earth In H. Jarrett (ed.) Environmental quality in a growing economy, resources for the future. Johns Hopkins University Press. 3-14.

Casarejos, F.; Bastos, C. R.; Rufin, C.; and Frota, M. N. (2018). Rethinking packaging production and consumption vis-à-vis circular economy: A case study of compostable cassava starch-based material. Journal of Cleaner Production. 201: 1019–1028.

CICERONE (2020). New Circular Economy Strategic R&I Agenda now available

Clift and Allwood, (2011). Rethinking the economy. The Chemical Engineer, March Edition.

Corvellec, H. (2019). Waste as Scats: For an organizational Engagement with Waste. Organization, 26(2), 217–235.

Corvellec, H., and Stål, H. I. (2019). "Qualification as corporate activism: How Swedish apparel retailers attach circular fashion qualifies to take- back systems". Scandinavian Journal of Management, 35(3), 101046.

EASAC (2017). "Circular economy: A commentary from the Perspectives of the Natural and Social sciences. European Academies' Science Advisory Council

Edema, G, (2023). Lagos Circular Economy Conference: The future of Lagos: Towards a Circular and Resourceful Economy. Punch Online Reports (July/2023).

Ellen MacArthur Foundation. (2013) Report." Towards the Circular Economy: Economic and Business Rationale for an Accelerated Transition." p. 24.

Ellen MacArthur Foundation and World Economic Forum (2020). "Intelligent Assets: Unlocking the circular economy potential, www.ellenmacarthurfoundation.org

Geissdoerfer, M., Pieroni, M. P., Pigosso, D.C. and Soufani, K. (2020). "Circular business models: A review. *Journal of Cleaner Production. 277, 123741.*

Geissdoerfer, M.; Savaget, P.; Bocken, M. P.; and Hultink, E, (2017). The Circular Economy: A new sustainability paradigm? Journal of Cleaner Production. 143, 757–768.

Geissdoerfer, M.; Morioka, S. N.; de Carvalho, M. M.; Evans, S. (2018). Business models and supply chains for the circular economy. Journal of Cleaner Production. 190: 712–721.

Hysa, E.; Kruja, A.; Rehman, N.U.; Laurenti, R. (2020). Circular Economy Innovation and Environmental Sustainability Impact on Economic Growth: An Integrated Model for Sustainable Development and Sustainability. https://www.mdpi.com/2071-1050/12/12/4831/htm

Invernizzi, D. C.; Locatelli, G.; Velenturf, A.; Love, P..; Purnell, P.; Brookes, N. J. (2020). "Developing policies for the end-of-life of energy infrastructure: Coming to terms with the challenges of decommissioning". Energy Policy. 144: 111677.

ICLEI Africa (2021). Local Government for Sustainability Africa. Circular development Circular Development Pathway.

Jackson, T. (1996). Material concerns: Pollution, profit and quality of life. https://www.routledge.com/Material-Concerns-Pollution-Profit-and-Quality-of-Life/Jackson/p/book/9780415132497: Routledge.

Kaur, G.; Uisan, K.; Lun Ong, K.; and Sze Ki Lin, C. (2017). "Recent trend in Green sustainable Chemistry & waste valorisation: Rethinking plastics in a circular economy". Current Opinion in Green and Sustainable Chemistry. 9: pp.30–39.

Kneese, A. (1988). The Economics of Natural Resources. Population and Development Review, 14, 281-309.

Korhonen, J., Nuur, C., Feldmann, A., and Birkie, S. E. (2018). "Circular economy as an essentially

contested concept". Journal of Cleaner Production, 175, 544–552.

Korhonen, J.; Honkasalo, A.; and Seppälä, J. (2018). "Circular Economy: The Concept and its Limitations". Ecological Economics. 143, 37–46.

Kristoffersen, E.; Blomsma, F.; Mikalef, P.; and Li, J. (2020). The smart circular economy: A digital-enabled circular strategies framework for manufacturing companies". Journal of Business Research. 120: 241–261.

Lazarevic, D., and Valve, H. (2017). "Narrating expectations for the circular economy: Towards a common and contested European transition". Energy Research & Social Science, 31, 60–69. Valenzuela, F., and Böhm, S. (2017). "Against wasted politics: A critique of the circular economy" ephemera: theory & politics in organization, 17(1), 23-60.

L'économie circulaire (2020). Ministère de la Transition écologique. https://www.ecologie.gouv.fr/leconomie-circulaire

Leipold, S. (2021). Transforming Ecological Modernization 'from within' or perpetuating it? The circular economy as EU environmental policy Narrative, Environmental Politics, pp. 1-23.

McMillan, C. A.; Skerlos, S. J.; and G. A. Keoleian (2012). "Evaluation of the metals industry's position on recycling and its implications for environmental emissions". Journal of Industrial Ecology 16(3): 324–333.

Mignacca, B; Locatelli, G; and Velenturf, A. (2020). Modularisation as enabler of circular economy in energy infrastructure. *Energy Policy, 139: 111371.*

Murray, A.; Skene, K.; and Haynes, K. (2015). The Circular Economy: An Interdisciplinary Exploration of the Concept and Application in a Global Context. Journal of Business Ethics. 140 (3): 369–380.

Nuñez-Cacho, P.; Górecki, J.; Molina-Moreno, V., and Corpas-Iglesias, F. A. (2018). New Measures of Circular Economy Thinking in Construction Companies. *Journal of EU Research in Business, 1–16.*

Pauliuk, S. (2018). Critical appraisal of the circular economy standard BS 8001:2017 and a dashboard of quantitative system indicators for its implementation in organizations. *Resources, Conservation and Recycling, 129: 81–92.*

Pearce, D.W., & Turner, K.R. (1989). Economics of Natural Resources and the Environment. Johns Hopkins University Press.

Ranta, V; Aarikka-Stenroos, L; Ritala, P; and Mäkinen, S. J. (2018). Exploring institutional drivers and barriers of the circular economy: A cross-regional comparison of China, the US, and Europe. *Resources, Conservation and Recycling. 135, 70–82.*

Rashid, A.; Asif, F.; Krajnik, P.; and Nicoles, C. M. (2013). Resource Conservative Manufacturing: an essential change in business and technology paradigm for sustainable manufacturing. *Journal of Cleaner Production. 57, 166–177.*

Scott, W. R. (2008). *Institutions and Organization: Ideas and Interest (3rd edition). Sage Publications.*

Su, B.; Heshmati, A.; Geng, Y.; and Yu, X. (2012). A review of the circular economy in China: moving from rhetoric to implementation. *Journal of Cleaner Production, 42, 215–227.*

Tonelli, M. and Nicolo, C. (2018). Strategic management and the Circular Economy. https://www.amazon.com/Strategic-Management-Circular-Routledge-Research/dp/1138103632: Routledge.

Völker, T.; Kovacic, Z.; and Strand, R. (2020). "Indicator development as a site of collective imagination? The case of European Commission policies on the circular economy". Culture and Organization. 26(2), 103-120.

Weetman, C. (2016). *A circular economy handbook for business and supply chains: repair, remake, redesign, and rethink. Kogan Page Press.*

World Economic Forum Report (2019). Platform for Accelerating the Circular Economy (PACE).

Zink, T., and Geyer, R. (2017). Circular economy rebound. *Journal of Industrial Ecology*, 21(3), 593–602.

Impact of Currency Redesign Policy on the Operations of Hospitality Ventures in New Bussa, Nigeria

Attahiru Hamza, Awal Adamu Bussa, Mohammed Nurudeen and Mohammed Hafsah Laraba
Federal College of Wildlife Management New Bussa, Niger State, Nigeria
***Corresponding Author:** hamzahborgu@gmail.com

Abstract
Hospitality sector is recognized as the bedrock of tourism due to the crucial role it plays in satisfying particularly those away from home through the provision of accommodation, foods and drinks. Any factor that could affect the rendering of such services is detrimental to the development and sustainability of the sector and investigating the effect of currency redesign on hospitality operations in relation to New Bussa community is of prime significance. Purposive and convenient sampling techniques were adopted to select 100 respondents, i. e proprietors and customers who patronize the hospitality enterprises in New Bussa respectively. Primary and secondary data sources were implore through personal observation and the aid of a well- structured questionnaire of Likert scale format, with weighted average of 5, as well as relevant existing literature such as journals, textbooks and the internet. Descriptive statistics such as simple percentile and frequency were used for analysis based on information obtained from the questionnaire using Statistical Package for Social Science (SPSS) and interpretation was basically on the mean coefficients in tabular form. The study reveals that currency redesign policy has significant negative effect on hospitality operations in the areas of reduction in customer's patronage, decrease in the demand for hospitality products and revenue of hospitality ventures in New Bussa respectively and similarly has positive significant effect on currency value in general and encourages cashless transactions among other finding and could be concluded that New Bussa community houses varieties of hospitality ventures ranging from hotels, guest houses, restaurants and bar but has experienced slightly significant decrease in patronage due to currency redesign policy. It was recommended that government should allow the old currency to continue to function as a legal tendency till it fades up as it applies to the previous N5, N20 and N50 which were designed in polymer form. Both the old and the redesigned currency should be sufficiently made available to enable individual's access cash with ease to further enhance patronage and indeed profitability in hospitality ventures and finally, the daily, weekly and monthly cash withdrawal limit for individuals and corporate bodies should be reviewed upwardly to further encourage a relative cash flow in the society as this will pave way for more patronage to hospitality products.

Keywords: Currency, impact, hospitality, redesign, ventures

Introduction and Literature Review

Hospitality is considered as one of the essential industry across the globe as it provides services for people who are away from home irrespective of the duration of their stay. Though, the services could be different base on the immediate and actual demand for both the stranger away from home and the enterprise rendering such services (Baker, Bradly and Huyton, 2000). Hospitality industry is of immense significance as it contributes to the growth of an economy through providing millions of means of livelihood (employment opportunities), constitutes a large proportion of a country's Gross Domestic Product, and as such, enhancing the national income and aiding the inflow of foreign currencies there by strengthening the value of the domestic currency through the goods and services consumed by foreign visitors and subsequently enhancing balance of payments (Amadi, 2008).

It is obvious that hospitality is tourism because it is acknowledge as the brain-box upon which tourism operations depends. There is no doubt that hospitality industry is the livewire of tourism at all levels (Nwosu, 2008). The United Nations World Tourism Organization (UNWTO) confirms that between 70% and 75% of international tourists' expenditure goes to hospitality services on annual basis (Akpabio, 2007). This established the immense importance of the sector to tourism and by extension, the economy at large.

Hospitality is indeed the friendly and generous reception and entertainment of guest, visitors or strangers. It could also be viewed as the business of providing food, drink and accommodation for customers of restaurants, bars, etc or guests at hotels. (hospitaliti, 2023). In yet similar development, broadly speaking, hospitality is the act of kindness in welcoming and looking after the basic needs of customers or strangers, mainly in relation to food, drink and accommodation. A contemporary explanation of hospitality refers to the relationship process between a customer and a host (https://uru.ac.in hospitality, 2023)**.**

In 2021, monetary policy focused on relieving the impact of shocks on the Nigerian economy which came as a result of the various developments in the global and domestic economies (CBN, 2021). In April 1984, banknotes colours were changed except the 50 Kobo banknote, with particular emphasis to curtail currency trafficking prevalent at the time. In 1991, the 50K and 1 were both coined. In reaction to the expansion in economic activities and to enhance an efficient payments system, the 100, 200, 500 and 1000 banknotes were introduced in December 1999, November 2000, April 2001 and October 2005 respectively (CBN, 2015).

These transformation and expansion in currency definitely impacted on the economy both positively and negatively. Similar scenario took place in 2022 during the administration of President Muhammadu Buhari and extended to 2023 which in one way or the other still impacting on the economy, hospitality sector inclusive. Recently the Governor of central bank of Nigeria, Godwin Emefiele on October 26, 2022 announced that new naira notes would be introduced to replace the current N200, N500 and N1000 naira notes. Emefiele said that the redesign will take effect from Thursday December 15 2022. He also said that existing notes would seize to be regarded as a legal tender by January 31st 2023.

This study came up as a result of the importance of hospitality sector and it recognition as the bedrock of tourism due to the crucial role it plays in satisfying particularly those away from home through the provision of accommodation, foods and drinks. There is no doubt that hospitality industry is the livewire of tourism at all levels (Nwosu, 2008). Any factor that could affect the rendering of such services (accommodation, foods and drinks) is detrimental to the development and sustainability of the sector and investigating such in relation to New Bussa community is of prime significance.

Scholars like Abubakar and Mohammed (2018), Udor, Gbande, & Acha, (2018), Uju and Ogochukwu, (2021) Patrick, (2022) and Mbabazize, Turyareeba, Ainomugisha, & Rumanzi, (2020) among others, conducted a study on the effect of currency redesign (monetary policy) on various aspects of the economy such as small scale business enterprises in Nigeria, profitability of commercial banks in Uganda, growth of the economy in Nigeria and uses descriptive and inferential statistics such as frequency and percentage with charts illustrations and Generalized Method of moment to run the regression analysis respectively and so on and the whole studies founds a significant relationship between currency redesign and the various economic indices indicated.

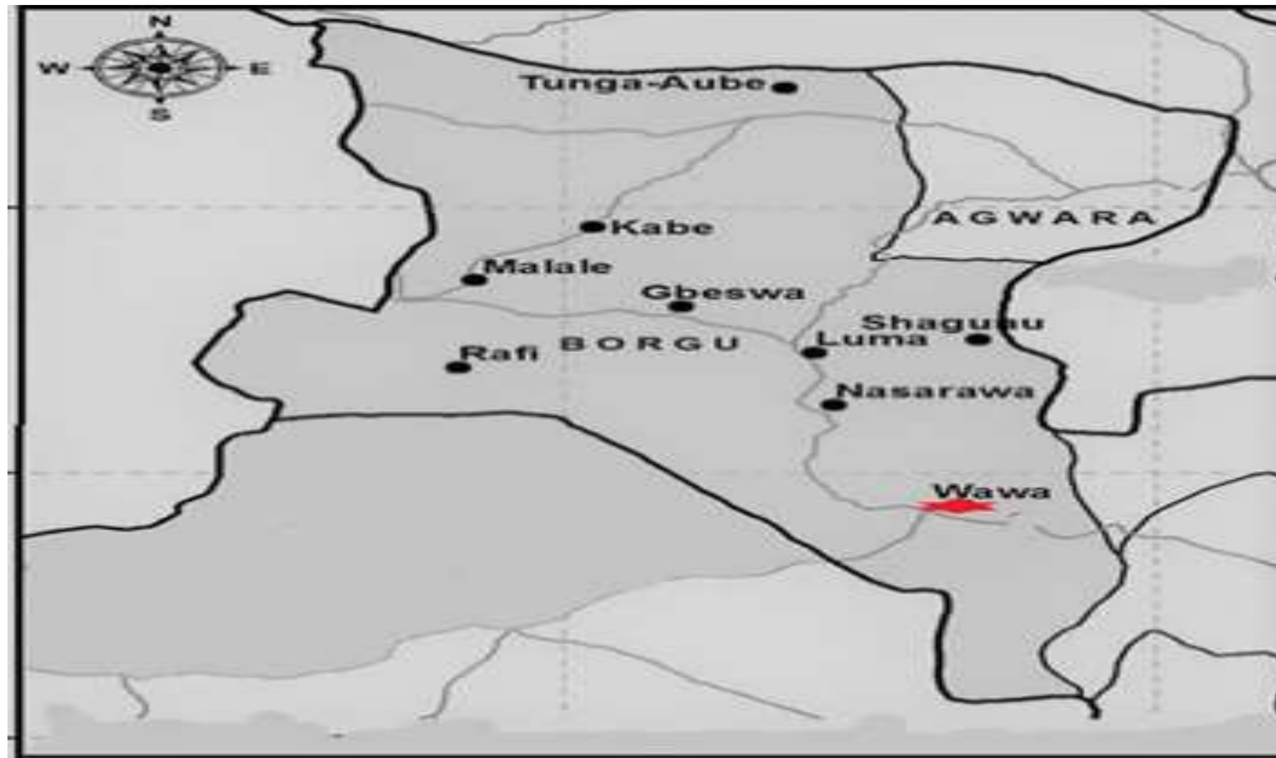
However, non among these studies adopted: questionnaire, Close-Ended format, Likert Scale, with Weighted Average of 5 as the instrument for data collection; investigated the level of patronage during the implementation of the policy as well as the effect of the policy on the operations of hospitality ventures in a particular community. Moreover uses Special Package for Social Science (SPSS) for analysis and special considerations to mean coefficients of the responses of the respondents as focal point for results interpretations. Therefore this study has filled such gaps through examining the effect of currency redesign on the operations of hospitality ventures in New Bussa, specifically to identify the various hospitality ventures, their location and the district areas they are situated, ascertain their level of patronage during the implementation of currency redesign policy and finally, determine the effects of currency redesign on the operations of hospitality ventures in New Bussa.

Achieving the above is justifiable to the fact that the findings will be of immense significance to the central bank of Nigeria as they would realize the effects of the currency redesign on the operations of hospitality ventures and then make use of the findings in the future to design a suitable policy if in case, a similar or the same situation manifested in future. The study will also be of great importance to the hospitality industry on how to manage currency redesign situations in the nearest future if its warrant. Future researchers would also benefit tremendously from the findings of this research as they would deduce that currency redesign policy has significant negative effect on hospitality operations in the areas of reduction in customer's patronage, decrease in the demand for hospitality products and revenue of hospitality ventures in New Bussa respectively and similarly has positive significant effect on currency value in general and encourages cashless transactions.

Materials and Methods

New Bussa (Borgu) is a town in Niger State, Nigeria. It is the new site of Bussa after the Kainji Lake dam set the previous location underwater. As of 2007 New Bussa had an estimated population of 24,449. New Bussa is the headquarters of the Borgu Emirate and the Borgu Local Government Area. Its geographical coordinates are 9.8638^0N, 4.5245^0E, with a land mass of about 5,325 square

kilometer . New Bussa shared boundaries with Kwara State to the South, Benin Republic to the West and Kebbi State to the North. The major occupation of the people of New Bussa is civil servant, agriculture, with crops such as beans, maize, groundnut and rice being grown in large quantities. Fishing and animal husbandry are also common in the town (The World Gazetteer, 2013).



The study population comprises proprietors of hospitality related enterprises and customers in New Bussa. It was from the above highlighted population that 100 respondents were drawn as sample representation. Purposive and convenient sampling techniques were adopted to select respondents, i. e 11 proprietors (the whole 15 hospitality facilities belongs to just 11 proprietors, i.e Royal suite, Royal Suite Annex and Royalty Kitchen belongs to 1 proprietor, NAPTIN Guest House, NAPTIN Annex are for 1 proprietor and also Park Way Hotel and Lake Way Hotel belongs to a single proprietor). 6 customers from each of the 13 ventures and 5 each from the remaining two, Lake Way Hotel and Iya Ada restaurant due to their sizes, facilities and patronage.

Primary and secondary data sources were implore through personal observation and the aid of a well- structured questionnaire of Likert scale format, with weighted average of 5, as well as relevant existing literature such as journals, textbooks and the internet. Descriptive statistics such as simple percentile and frequency were used for analysis based on information obtained from the questionnaire using Statistical Package for Social Science (SPSS) and interpretation was basically on the mean coefficients in tabular form.

Results and Discussions

Table 1: Hospitality Ventures in New Bussa

S/N	Name of hospitality ventures	Location of the ventures	District Area
1.	Safara Hotel	Opposite Sabuke Square, New Bussa	Dantoro District
2.	Naptin Guest House, Annex and Golf Club Bar	Kadariko Area, New Bussa	Kigera
3.	Danborgu Guest House	Behind Hydro Hotel, New Bussa	Kitoro
4.	Giop Guest House	Opposite Baba Yusuf Resident	Bussa
5.	Borgu Royal Suite and Safara Restaurant	Opposite NTA Dongogeri	Dantoro
6.	Holy Hotel “75”	Along Benue Road, New Bussa	Kitoro
7.	Lafia Spot Hotel	Sokoto Road New Bussa	Kitoro
8.	Lake Way Hotel	Off Ibadan Way, New Bussa	Bussa
9.	Prestige Guest House	Near Nedufu Residence beside Magistrate Court, New Bussa	Kitoro
10.	Park Way Hotel	Opposite AMMK III Science College, New Bussa	Kitoro
11.	Royal Kitchen	Nedufu Filling Station	Sabuke
12.	Marafa Synergy (Royal Suite Annex)	Near Nedufu Filling Station, New Bussa	Sabuke
13.	Mama Ada Restaurant	Behind Parkway Hotel, New Bussa	Kitoro
14.	Eyal Sabuke	Beside Okaeme Estate, Koro Road	Sabuke

Source: Personal Observation, 2023

Table 1 show the available hospitality ventures in New Bussa which comprises of hotels, guest houses, restaurants and bar. This indicates that the community is blessed with several hospitality venues that could attract high rate of patronage and perhaps, enhance profitability in the industry. This high rate of patronage would be achieved since New Bussa as a local government head quarter has the highest concentration of federal presence in the country after Zaria, in which 80% of these establishments are tourist attractions. For example, Kainji Dam, Kainji Lake National Park (museum), Federal College of Wildlife (museum and zoo), Nigerian Air force Base Kainji among others. Moreover, large portion of the ventures were situated in Kitoro District area which signifies that major hospitality activities were hosted by the expanded part of Bussa community and away from Bussa District which is the heart of Bussa community. Kigera and Dantoro District areas also recorded few ventures with Bussa Having the least with just a single hospitality venture. Dantoro and Kigera were at the extreme part from of Bussa community and with disperse settlement, implying that there are still vacant lands and plots yet to be developed that could later attract investment in hospitality business as against Bussa District area which densely populated.

Table 2: Level of patronage to Hospitality ventures during the implementation of currency re-design policy

Variables	Frequency	Percentage
Significantly increased	3	3%
Slightly increased	20	20%
Remained Stable	-	-
Slightly decreased	68	68%
Significantly decreased	9	9%

Source: Field Survey, 2023

The table presents data on the level of patronage in the context of the impact of currency redesign on hospitality ventures in New Bussa. Majority of the respondents (65%) reported "Slightly Decreased, 20% of them reported "Slightly Increased, 9% and 3% of the respondents reported "Significantly Decreased and Significantly increased respectively while none of the respondents reported "Remained Stable" This data suggests that a significant portion of the respondents experienced a decrease in patronage (both slightly and significantly), which could be an issue of concern to the hospitality ventures in New Bussa. The absence of respondents reporting "Remained Stable" implies that most respondents felt some level of change in patronage.

The slight decrease in patronage could be attributed to the scarcity of the currency which in turn affects the revenue and perhaps, profitability of hospitality ventures in New Bussa. This will serve as a threat the operations of the ventures as profits is the major reason for business transactions and is only realized through rate of turnover (patronage). The primary method was used to achieve this objective since most hospitality ventures do not keep records of patronage to their facility which is a major constraint and the main reason why the patronage level for each variety of hospitality ventures was not generated separately.

Table 3: Effects of policy redesign on the operations of hospitality ventures in New Bussa

Variables	Extremely effective	Effective	Undecided	Not Effective	Completely not effective	X	Remark
It will promote the adoption of cashless transactions in hospitality ventures	55	39	6	0	0	4.72	Significant
It will discourage the unnecessary holding/ hiding of currency notes by hospitality businesses.	48	40	8	4	0	4.47	Significant
It will enable the naira to appreciate it value towards the purchase of hospitality products and other items due to its scarcity.	44	50	6	0	0	4.72	Significant
It will reduce demand for hospitality products	46	46	8	0	0	4.49	Significant
It will reduce the rate of patronage to hospitality venture	40	52	8	0	0	4.49	Significant
It will reduce the revenue and income of hospitality ventures through insufficient cash in circulation	60	20	20	0	0	4.34	Significant

Source: field survey, 2023

Table 3 above provides a valuable insight into the perceptions of respondents regarding the effectiveness of a policy related to currency redesign in the context of hospitality ventures in New Bussa. One notice-deserving result is the remarkable agreement among respondents that the policy will promote the adoption of cashless transactions. This high mean coefficient of 4.72 indicates a strong belief in the policy's ability to drive the transition towards cashless transactions. Similarly, the perception that the policy will enable the appreciation of the naira's value, with another high mean coefficient of 4.72, highlights the optimism about its potential economic benefits to all sectors including hospitality.

Similarly, the policy's effectiveness in discouraging the unnecessary holding of currency notes, as indicated by a mean coefficient of 4.47, suggests that respondents view it as a practical measure to combat illicit financial activities and unnecessary holding and hiding of the currency. The policy's potential to reduce demand for hospitality products is supported by a mean coefficient of 4.49. The perception that the policy will reduce the rate of patronage to hospitality venues was attributed to the scarcity of currency caused by cash withdrawal limit, with a mean coefficient of 4.49, indicates a negative effect of the policy on hospitality ventures.

Lastly, the policy being seen as measure that will reduce the revenue and income of hospitality ventures through low patronage is unhealthy to the survival of hospitality ventures, with a mean coefficient of 4.34. However, hospitality business deduced more of the negative impacts of currency redesign than its overall positive impacts. This implies that the policy does not favour hospitality operations in a variety of ways as could be seen from the mean coefficients in the above table.

Conclusion

It could be concluded that New Bussa community houses numerous hospitality ventures ranging from hotels, Guest houses, Restaurants and bar. It could further be concluded that currency redesign policy has brought challenge to the rate of patronage where patronage level to hospitality ventures in New Bussa has dropped significantly which could be attributed to the scarcity of currency that was prompted as a result of the currency redesign policy, cash withdrawal limit in particular and scarcity of the currency. In yet similar development, it could be deduced from the research findings that currency redesign policy has significant negative and positive relationships with hospitality operations, which implies an increase in the effectively of the policy instrument will result to a decrease in the operations of hospitality ventures in one angle and enhance the value of the currency as well as encourages cashless transaction in hospitality operations in the other angle and vice versa.

Meanwhile, the significant negative findings are in conformity with the findings of Ukpere and Nwankwoala, (2019) who reported that currency redesign has a significant negative effects on the operations of hospitality ventures and that the policy led to a decrease in hotel occupancy rate, revenue and customer satisfaction and also in contrast with the findings of Nwachukwu, and Nwogu, (2020) who concludes that the monetary policy of Naira redesign will encourage better marketing performance in terms of increasing sales growth and profitability.

Recommendations

Based on the above findings, the following recommendations were made:

Government should allow the old currency to continue to function as a legal tendency till it fades up as it applies to the previous N5, N20 and N50 which were designed in polymer form.

Both the old and the redesigned currency should be sufficiently made available to enable individual's access cash with ease to further enhance patronage and indeed profitability in hospitality ventures.

The daily, weekly and monthly cash withdrawal limit for individuals and corporate bodies should be reviewed upwardly to further encourage a relative cash flow in the society as this will pave way for more patronage to hospitality products.

Up-to-date record of patronage to hospitality ventures for both residents, other domestic and foreign customers for all varieties of the venture should be kept for research and record purposes.

References

Abubakar, A. M. and Mohammed, A. (2018). Currency Redesign: An Analysis of Design Elements in Nigerian Banknotes. Journal of Design and Built Environment, 18(1), 1-10.

Akpabio, I (2007): "Hospitality industry in Nigeria: Prospects and challenges in developing tourism", *African Hospitality and Tourism,* Vol 11, No 3, pp 23-26.

Amadi, O (2008). Nigeria hotels and boom in tourism. *Businessday Newspaper*, September 7, P9.

Baker, S, Bradly P and Huyton (2000): Principles of Hotel Front Office Operations, Second Edition, London, Continuum, pp 2, 6.

Central Bank of Nigeria (2015). History of Nigerian Currency. https://www.cbn.gov.ng/ Currency/historycur.asp

Central Bank of Nigeria (2021). The conduct of monetary policy.https://www.cbn.gov.ng/ Monetary-Policy/Conduct.asp

Central Bank of Nigeria (2022). Redesigning of the Currency. www.cbn.gov.ng

Definition from Oxford Languages, hospitality (https://uru.ac.in hospitality, 2023)

Mbabazize, R. N., Turyareeba, D., Ainomugisha, P., & Rumanzi, P. (2020). Monetary policy and profitability of commercial banks in Uganda. *Open Journal of Applied Sciences, 10*, 625-653.

Nwachukwu D. and Nwogu, C. U. K. (2022). Monetary Policy and Marketing Performance of Businesses in Port Harcourt: A Case of Naira Redesign in 2022. *International Academy Journal of Management, Marketing and Entrepreneurial Studies*. 9(1), 191-213.

Nwosu, B (2008): In Nigeria hotels and boom in tourism- by Amadi, O", *Business day Newspaper*, September 7, p 9.

Patrick Pillah, Tyodzer (2023). Currency Redesign and Monetary Policy of Nigeria: An Evaluation. International Journal of Public Administration and Management Research, 8(4).

The World Gazetter (2013). Archived from the original on 2013-02-09, Retrieved 15/4/2023.

Udor, F. I., Gbande, C., & Acha, I. A. (2018). Monetary policy and growth of small and medium enterprises in Nigeria. *International Journal of Advanced Studies in Business Strategies and Management, 6*(1), 39-60.

Uju, E. A., & Ugochukwu, P. O. (2021). Effect of monetary policy on industrial growth in Nigeria. *International Journal of Entrepreneurship and Business Innovation, 4*(1), 47-60.

World Travel and Tourism Council (2009). Travel and Tourism, A New Economic Perspective. World Travel and Tourism Council.

Does Public Sector Economic Policies Drive Economic Globalization? Evidence from Nigeria

Onyendi, Hilary Uchenna
Department of Banking and Finance.
Michael Okpara University of Agriculture Umudike
hilluch2008@yahoo.com

Abstract
The paper investigated the effect of government economic policies on globalization in Nigeria within the period spanning from 1981 to 2022. Robust public sector economic policies anchored on global best practices will trigger globalization by attracting foreign investment, growth and development. However it appears that the over the years, the government policies has not explained attracted globalization. This calls for investigation. The objective of the study is to answer the question- Does public sector economic policies drive globalization in Nigeria within the period under review? The study adopted secondary data. Data sourced from Central Bank of Nigeria Statistical Bulletin of various issues. Both descriptive and econometric tools were adopted for analysis. The Ordinary Least Squares (OLS) time series data was used for econometric analysis. The Augmented Dickey Fuller ADF unit root test URT was employed to ascertain if the variables have unit root in order to avoid the simultaneity bias associated with the time series data. To establish the relationship and association in magnitude and size, the correlation test was performed. Further, the autoregressive distributed lag ARDL test was performed The study found that the existence of long run relationship between the explanatory variables and the dependent variable in the long run while such does not exist in the short run; balance of trade depicts positive significance impact on globalization; inflation has a weak positive insignificant effect on globalization; lending rate has a negative insignificant effect on globalization; GDP growth has a positive insignificant effect on globalization; unemployment rate show negative insignificant impact on globalization. The implication of finding is that the objectives of the public sector economic policies are far from been attained. These prohibit foreign investments and trade thereby hampering economic globalization.

Keywords: Public sector, economic policy, monetary policy, income policy, fiscal policy, globalization
JEL Classification: E52, E61, E64, F01

Introduction

Globalization is a process whereby ideas, knowledge, goods, services, information, technology among other are globally spread. Lutkevich (2019) observes that policies that promote free trade, open borders, and international cooperation all drive globalization. Economic globalization entails integrated economies linked by free trade, free flow of goods and services, easy access to foreign resources to maximize returns and benefits for the common good. Globalization facilitates the people, governments across borders to interact and integrate through international trade and investments.

Onojah (2020) observed that developed nations have mostly benefited from globalization than the developing nations since they have larger share of global trade has been on an increasing rate. It is to be pointed out that developing nations including Nigeria has tried various policies, programs, initiatives, developmental strategies with the aim of attaining self reliance from dependence from other countries. Various types of globalization are discernable. They include economic, cultural, political, environmental and technological globalization.

Economic globalization explains a shift towards a linkage and interdependence of world economy. It is a precipitate of economic liberalization, deregulation, privatization, transit convenience and liberalized communication. It takes the forms of globalization of markets and globalization of production. Cultural globalization is the process of global integration via values, beliefs, and norms. It is a product of global culture development. Political globalization is integrates the world through political ideologies. It involves the unification of the various political ideologies under a single government. Environmental globalization is has to do with global integration via issues emanating from global environment. Technological globalization is the integration of the individual country's technology with the rest of the world.

Public sector economic policies indicate economic stabilization weapons involving designed measures to regulate and drive the economy to desired growth and stability. These policies are usually deliberate. Anyanwu (1993) identified three major policy objectives viz, monetary policy, fiscal policy and income policy comprising of price policy and wage policy. Monetary policy is set of tools by the Central bank to control, regulate the totality of money supply and stimulate growth.

The tools use to accomplish this include interest rate, bank reserve requirements. Literature is settled on the objectives of the economic policies to include maintaining stability in domestic prices, attaining high rate, or full employment, achieving high rate and sustained economic growth, maintenance of balance of payment equilibrium, and achieving stability in exchange rate. These objectives which are triggered by sustainable economic policies are expected to drive globalization

Onojah (2020) observes that "despite the rosy picture painted by globalization, Nigeria still remains at the peripheral level of with high rate of poverty, unemployment and other economic woe". This is not unconnected with public economic policies and policy implementation put in place to drive the economy over the years. Succinctly put, despite the public sector economic policies put in place over the years, the economy seems not to have attracted the desired globalization and global relevance. This calls for investigation.

The major objective of the study is to provide an answer to the question- Does public sector economic policies drive economic globalization? The study contributes to literature in two ways. The recommendations will undoubtedly provide the policy makers with a theoretically -based policy framework that will shape formulations and implementation of policies that will trigger predictable, realistic and competitive economic policies that will drive globalization. It will also be a focal point for future researches on economic policies such monetary, fiscal, income policies in emerging economies; while bridging the existing gap in literature on the economic policy implication in Nigeria.

The rest of the paper is organized as follows- following the introduction in Section 1 is the literature review in Section 2 and methodology and results in Sections 3 and 4 respectively. The paper is concluded in section 5 with recommendations and summary.

Literature Review

Public sector economic policies

These policies are in the forms of monetary policy, fiscal policy and credit policy. Wrightmann (1976) sees monetary policy as the deliberate effort of the monetary authorities to control the supply of money and conditions for granting credit with aim of achieving certain economic objectives. Ranlett (1977) classified instruments of monetary policy as quantitative (traditional and non-traditional) tools; and the qualitative instruments. The traditional weapons include the open market operations (OMO), rediscount rate policy or bank rate, reserved requirements comprising of statutory cash reserve ratios, liquidity ratio, variable cash reserve requirements. The non-traditional requirements or the direct control of bank liquidity include special deposit, variable liquid assets ratio. The qualitative or selective controls instruments include moral suasions, selective credit control or guidelines.

Fiscal policy is the aspect of public sector economic policy that is concerned with raising of revenue through taxation and other sources of revenue accruable to the government and taking decision on the level and pattern of expenditure with the aim of attaining desired economic objectives. Credit policy entails the imposition of quantitative ceilings on the overall and or sector distributions of banking system loans, advances and credit to the economy. It comprises of wage policy and income policy. These policies are put in place with the objective of attaining certain economic goals. These goals are geared towards growth of the economy and therefore should stimulate globalization.

Globalization

Peter (2000) sees globalization as a process of integrating economic decision making such as consumption, investment and saving across the world. It is the expansion and intensification of international, political and commercial intercourse. Wallerstein (1974) opines globalization as the triumph of capitalist world economy together with a global division of labour.

The benefits of globalization among others are; engendering foreign investment which has correspondingly triggered capital formation towards economic growth; stimulating smooth banking such as e-banking, mobile banking, automated teller machine ATM among others; creating opportunities for jobs thereby creating the concept of outsourcing; technology transfers; making learning easier through internet; expanding international trade and finance; and enabling rapid growth in the domestic and foreign markets. These has made globalization an indispensable aid and concept to every economy.

However, globalization has its adverse side. It leads to high importation at high cost without corresponding increase in exports. It has also facilitated insecurity. Globalization has led the developing nations live at the mercy of the developed nations with regards to military economic manipulations. Be it as it may, when formidable economic policies are put in place, this adverse effects of globalization will be circumvented while the full benefits of globalization will be maximally harnessed.

Relationship between Public sector economic policies and Globalization

The product of effective and efficient public economic policies involves achieving the objectives of such policies. Attainments of such objectives trigger and drive globalization. Stable domestic prices drive confidence of the domestic and foreign investors towards investing in the economy. High inflationary rates in inimical to openness. Full employment or high level of employment is an index for attracting globalization. In a situation where the unemployment rate is and soaring, globalization is discouraged. Sustainable and high growth in the gross domestic product is an indicator for attracting globalization. However, a stagnant economy discourages globalization. Maintaining balance of payments equilibrium or surplus will attract foreign investors to the economy for growth. It shows that trade of the economy with the rest of the world (ROW) is in favor of the particular nation. Finally stable and predictable rate of exchange is an indicator of globalization.

Theoretical Review

The theoretical framework for which this study is anchored is the Modernization theory. It entails a model of continuous passage from a pre-modern or traditional society to a modernized society. It describes the process of advancement within societies. It denotes that the internal features of a nation explain why it is underdeveloped, while economic growth is driven by existence of meaningful progress. It argues that conditions as technical advancement, quality education, production efficiency necessary for growth and attraction of globalization are lacking in developing countries. Nigeria is not exempted. This is facilitated by enabling economic policies to drive these conditions.

Empirical Review

Popoola (2020) in the study on globalization and Nigeria's economic development concludes the existence of interconnectedness between globalization and economic development in Nigeria which correspondingly triggered the unemployment rate and impedes the country's democratic development. Osei (2019) investigated the drivers of economic globalization in Africa with emphasis on Panel data with special focus on the role of economic growth. Findings that while economic growth robustly enhances openness in low income countries, in the case of lower-middle –income countries, economic growth impact is not robust and largely negative implying that higher growth is associated with less openness.

Jansen & Nordas (2004) in the study of the impact of institutions on trade openness in developing and developed economies adopted the ordinary least squares. Findings indicate that institutional variables such as rule of law, government effectiveness, and control of corruption, are positively related to trade openness. Further findings show that while domestic infrastructure has significant

positive impact on trade openness, domestic tariffs and institutions had no significant evidence. It concludes that the larger the marginal impact of the reduction in tariffs on trade openness, the better the institutional quality.

Jafari, Ismail & Kouhestani (2011) studied the determinants of trade flows among D8 countries and delved into factors that affect the volume of export flows among member countries. It was found that the major factors affecting export flows are trading partners' gross domestic product, exchange rate, population of the exporter country, border and distance.

Tahir (2018) studied the South Asian Association for Regional Cooperation (SAARC) countries with particular reference to macroeconomic determinants of trade openness. Data spanning from 1971 to 2011 was studied and adopted the tool of fixed-effect panel estimation technique. It shows that macroeconomic determinants significantly drive trade openness. Also while physical capital, human capital, and GDP per capita contribute positively in influencing trade openness, labor force and exchange rate negatively affect trade openness.

Methods and Procedures

The study used annual data covering the period from 1981 to 2022 for Nigeria Data derived from the Central Bank of Nigeria CBN statistical bulletin of various issues. The dependent variable is economic globalization represented as (EGLB); this is proxy as trade openness. Trade openness has to do with yardstick of economic policies that either inhibit or attract trade with or globalization between and among countries. It has to do with ease to which investors can come in and do business in a country. It is computed as the trade to GDP ratio; a measure of trade openness has increased for most countries due to globalization and trade liberalization. It is calculated as the summation of exports and imports divided by the gross domestic product.

The explanatory variables are the proxy for public sector economic policies – balance of trade (BOT), gross domestic product growth (GDPgr) and inflation (INF), lending rate (LR)., unemployment rate (UNE)

Descriptive Test

The mean, mode, standard deviation, kurtosis and probabilities and other descriptive statistical figures were adopted to establish a relationship between the regressors and the regressed variables.

Econometric tests

We first test for the integration order of the dependent and dependent variables. Three of the mostly employed unit root test (URT) includes Dickey –Fuller (1979, 1981), Phillips-Peron test (1988), and the Kwiatkowski et al test (1982). In the study we employ the Dickey- Fuller test.

For the econometric statistic the following augmented model is estimated-

$$L\Delta EGLB = \beta_0 + \beta_1 LGDPgr + \beta_2 Inf + \beta_3 UnE + \beta_4 LR + \beta_5 BoT +_{t..} \quad (1)$$

Where

L = logarithm, $\Delta =$ rate of variations in the employed variables

EGLB = proxy for globalization, β exports $_0$ =constant, $\beta_{1,}$ β_2 = explanatory power of the variables, BOT = balance of trade, Lr = lending rate or the cost of obtaining credit, Inf = inflation, UNE = rate of unemployment, GDPgr= annual growth rate of the GDP, $_t$ = stochastic error term.

The unit root test (URT)- the Augmented Dickey Fuller (ADF)

The decision rule is thus "If calculated t-ratio is less than the critical value (table value), the null hypothesis of unit root (non stationary) is rejected in which case the level of time series X_t is characterized as integrated of order zero i.e. I (0). But if it is observed that the individual time series in the equation are integrated of order one I(1), then the series is said to be non stationary. Succinctly put, if the ADF test-statistic (t-statistic) is less (in the absolute value) than the Mackinnon critical t-values, the null hypothesis of a unit root cannot be rejected for the time series and hence, one can conclude that the series is non-stationary at their levels. The unit root test tests for the existence of a unit root in two cases: with intercept only and with intercept and trend to take into the account the impact of the trend on the series".

This model is shown as

$$\Delta X_t = \alpha_o + \alpha_1 t + \beta X_{t-1} + \sum_{j=1} \mathbf{Y_j} \Delta X_{t-j} + \mu_1 \quad \text{... (2)}$$

Where

X_t denotes integration series (explanatory variable), β represents the coefficient, Yj connotes the integrating series (observed variable), Δ shows the initial difference operator; t denotes the time trend; α_o is a drift; $_t$ is the linear time trend; *m* represents the length of lag; μ_1 is a white noise process.

Autoregressive distributed lag

In the time series domain, ARDL co integration bounds can be used to find the long run relationship among variables which are mixed such as some are stationery at level and some are stationery at first difference. Pesaran & Shin (1990) and Pesaran et al (2001) opines that "the ARDL co-integration technique is used in determining the long run relationship between series with different order of integration". The re -parameterized result gives the short run dynamics and long run relationship of the considered variables. This implies that ARDL is pertinent in forecasting and disentangling long run relationships from short run dynamics. By long run relationship we mean that some time series are bound together due to equilibrium forces even though the individual time series might move considerably.

The ARDL is a model for time series data in which a regression equation is used to predict current values of a dependent variable based on both the current values of an explanatory variable and the lagged (past periods) values of the explanatory variable. Cromwell et al (1994) opine that "in statistics and econometrics, a distributed lag model is a model for time series data in which the regression equation is used to predict the current values of the dependent variables".

The starting point of for a distributive lag model is an assumed structure of the form

$$Y_t = \alpha + W_0 \chi_t + W_1 \chi_{t-1} + W_2 \chi_{t-2} + \ldots + W_n \chi_{t-n} + \epsilon \quad \text{... (3)}$$

Alternatively , the distributive lag model is

$$Y_t = \alpha + W_0 \chi_1 + W_1 \chi_{t-1} + W_2 \chi_{t-2} + \ldots + \epsilon \quad \text{... (4)}$$

where, Y_t is the value at the time period t of the dependent variable y, α = the intercept term to be estimated, W_0 is the explanatory powers of the variables, χ_t = explanatory variable, W_1,W_2 are

the lag weight, $\in$ = the error term

In the first equation, the dependent variable is affected by values of the independent variables arbitrarily in the past, so the number of lag model weights is infinite and therefore the model is called the infinite distribution model. Conversely in the second and alternative equation there are only a finite number of lag weights, indicating an assumption that there is a maximum lag beyond which values of the independent variables do not affect the dependent variable. A model based on this assumption is called finite distribution lag model.

The ARDL decision rule is that if the computed F-statistic is greater than or above the upper band critical value, the null hypothesis (there is no co-integration among the variables) is rejected, (the variables are co-integrated). Conversely if the computed F-statistic is lesser than or below the lower band critical value, the null hypothesis cannot be rejected, (the variables are not co integrated). Also if the computed F-statistic falls within or between the upper band and lower bound critical value the result of the inference is inconclusive and depends on whether the underlying variables are of I (0) or I(1).

Results and Discussion

	EGLB	BOT	GDPGR	INF	LR	UNE
Mean	49.56925	8461828.	4.377115	18.02811	20.37566	2216.544
Median	46.91000	1705789.	4.200000	13.40000	20.86000	15.19600
Maximum	90.63000	36212412	33.70000	72.80000	43.21000	116162.0
Minimum	18.05000	1642.100	-13.10000	3.200000	6.000000	6.975200
Std. Dev.	18.28875	11807296	7.723482	14.50771	8.536414	15952.62
Skewness	0.339141	1.152557	1.006308	1.998766	0.292590	7.072405
Kurtosis	2.271640	2.864416	6.591482	6.710794	2.509597	51.01902
Jarque-Bera	2.187522	11.77470	36.72363	65.69847	1.287307	5533.867
Probability	0.334954	0.002774	0.000000	0.000000	0.525369	0.000000
Sum	2627.170	4.48E+08	227.6100	955.4900	1079.910	117476.8
Sum Sq. Dev.	17392.88	7.25E+15	3042.261	10944.62	3789.259	1.32E+10
Observations	53	53	52	53	53	53

Source: Researcher's Computation

The estimated mean value is employed to estimate the pattern of dispersal. The figures are 49.56 for the dependent variable (globalization) while the explanatory variables have the values of 8461828, 4.37, 18.02, 20.37 and 2216.54 respectively. The standard deviation depicts the variability from the mean or average value. The values shown in the Table 1 above depicts that for globalization stands at 18.288 while for the explanatory variables it is 11807396, 7.73, 14.5, 8.53 and 15952.6 respectively. It depicts that some variables have low variability such as globalization, gross domestic product growth, lending rate and inflation, while others have high variability such as BOT and unemployment. In summary, all values are widely dispersed around the mean. This indicates that they are grossly affected by the extreme mean.

The values are also positively skewed with such values as 0.33 for globalization, while 1.15, 1.006, 1.998, 0.29 and 7.07 respectively for the independent variables. For kurtosis, the shape can be flat or peak in terms of the normal curve. As it is well known, kurtosis measures the "tailedness" of the probability distribution of a real valued random variable. The variables exhibit leptokurtic distribution Also the variables depict reasonable level of association with probability significant at 0.05 level of significance. Jarque-Bera is used to measure the normality of the series, that is to say whether the series are normally distributed or not. Decision rule is that at 5% level of insignificance, the residuals are normally distributed. Although the variables exhibit reasonable sign of association in the descriptive analysis, we also subject these claims to more econometric test to confirm these claims.

Table 2: Unit Root test result

Variable	Intercept Only	Decision	Trend and Intersect	Decision
LEGLB	-2.9237 (6.9759)*	I(0)	-3.5063 (-6.9773)*	I(0)
LGDPGR	-2.9251 (-0.2758)	I(1)	-3.5085 (-1.7483)*	I(1)
LINF	-2.9251 (1.92207)	I(1)	-3.5085 (-0.3104)*	I(1)
LBoT	-2.9500 (-1.5639)	I(1)	-3.5236 (-2.1451)	I(1)
LLR	-2.9389 (7.3517)	I(1)	-3. 5063 (2.0556)*	I(1)
LUNE	-2.9273 (-5.8167)	I(0)	-3.5063 (-6.1647)*	I(0)

* (**) *** Significant at 1% (5%) 10% level of significance
Source: Researcher's Computation

For the unit root tests results - The Augmented Dickey Fuller unit root test depicts that the variables are integrated of order I(0) and order 1, that is, I(1) at 1%, 5% and 10% level of significance respectively as the case may be. Since variables are mixed where some are stationery at level and some are stationery at first difference, we adopt the Auto regressive Distributive Lag ARDL. In the time series domain, ARDL co integration bounds can be used to find the long run relationship among variables which are mixed such as some are stationery at level and some are stationery at first difference. Therefore we go a step further to employ the co integration test procedures to test the co -integration among the variables.

Table 3: Correlation test result

	EGLB	BOT	GDPGR	INF	LR
EGLB	1				
BOT	0.0190	1			
GDPGR	0.1722	0.0066	1		
INF	0.0261	-0.21855	-0.1357	1	
LR	0.0959	0.6951	-0.0308	0.0814	1

Source: Researcher's Computation

Correlation analysis establishes the relationship existing between a pair of variables. Table 3 depicts the correlation results. From the results, the balance of trade depicts very weak positive relationship with globalization having a value of 1.9%. It implies that both moves in the same direction but weakly, hence as the balance of trade increases by 100 units, globalization increases by 1.9 percent. The GDP growth shows a very weak positive relationship with globalization having a value of 17.2% while the rate of inflation and unem-

ployment rate shows weak positive relationship with the dependent variable at the values of 2.6% and 9.5% respectively.

Table 4: ARDL test result

Dependent Variable: EGLB
Method: ARDL
Date: 10/19/23 Time: 09:15
Sample (adjusted): 1974 2022
Included observations: 46 after adjustments
Maximum dependent lags: 4 (Automatic selection)
Model selection method: Akaike info criterion (AIC)
Dynamic regressors (4 lags, automatic): BOT GDPGR INF LR UNE
Fixed regressors: C
Number of models evalulated: 12500
Selected Model: ARDL(3, 4, 2, 0, 4, 3)
Note: final equation sample is larger than selection sample

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
EGLB(-1)	0.681885	0.197853	3.446427	0.0021
EGLB(-2)	0.723986	0.236676	3.058981	0.0054
EGLB(-3)	-0.605272	0.214914	-2.816345	0.0096
BOT	2.60E-06	8.31E-07	3.126262	0.0046
BOT(-1)	-1.78E-06	1.60E-06	-1.113622	0.2765
BOT(-2)	-1.80E-06	1.66E-06	-1.087993	0.2874
BOT(-3)	1.60E-06	1.44E-06	1.114072	0.2763
BOT(-4)	-1.28E-06	8.77E-07	-1.457181	0.1580
GDPGR	0.075596	0.256381	0.294859	0.7706
GDPGR(-1)	-0.245102	0.267825	-0.915155	0.3692
GDPGR(-2)	0.352469	0.265795	1.326093	0.1973
INF	0.360008	0.198524	1.813425	0.0823
LR	-0.390191	0.695845	-0.560744	0.5802
LR(-1)	1.070270	0.844047	1.268022	0.2170
LR(-2)	1.412062	0.668439	2.112476	0.0452
LR(-3)	-0.136720	0.685796	-0.199360	0.8437
LR(-4)	-1.524861	0.598054	-2.549705	0.0176
UNE	-0.000114	0.000120	-0.947617	0.3528
UNE(-1)	-0.000252	0.000135	-1.868747	0.0739
UNE(-2)	7.20E-05	0.000120	0.598272	0.5553
UNE(-3)	-4.44E-05	0.000134	-0.331592	0.7431
C	-2.138560	7.396427	-0.289134	0.7750

R-squared	0.867694	Mean dependent var	51.07891
Adjusted R-squared	0.751927	S.D. dependent var	18.67182
S.E. of regression	9.299859	Akaike info criterion	7.603810
Sum squared resid	2075.697	Schwarz criterion	8.478377
Log likelihood	-152.8876	Hannan-Quinn criter.	7.931428
F-statistic	7.495153	Durbin-Watson stat	1.616992
Prob(F-statistic)	0.000004		

Source: Researcher's Computation

In Table 4 the R-squared of 99 percent implies that 1 per cent of the variation of globalization cannot be explained by the public sector policies. For adjusted R^2 only 99 percent of the variations in productivity is driven by the explanatory variables. This also depicts significance and depicts fabulous result. This is also subjected to further test.

We test the long run equilibrium relationship that $\Theta_1 = \Theta_2 = \Theta_3 = \Theta_4 = \Theta_5 = 0$. This is done by using the Wald test that all the coefficients of the variations in levels are equal to zero. We compare the estimated F-statistics with bounds F-critical or tabulated value to determine if there is a long run relationship between the productivity and the public sector economic policy variables (Balance of trade, Gross Domestic Product growth, inflation, lending rate and unemployment). The 50%, 95%, 99% bounds critical F- value test bands for k=4 are (2.960-3.79), (3.12-4.25), (3.93-5.23) for model with both constant and trend. The calculated F-statistic is 458. This is greater than the bounds F-critical test. This indicates the existence of a long-run relationship between public sector economic policy and globalization.

The coefficient of the explanatory variable- balance of trade having a positive value of 2.6 has significant effect on globalization having a probability of 0.00. This implies that the balance of trade depicts positive significance impact on globalization.

With regards to inflation which have a coefficient value of 0.36 is insignificant having a probability of 0.08 greater than 5% level of significance. This depicts that general rise in price level engenders globalization. It has a weak positive insignificant effect on globalization. Also with regards to lending rate which has a coefficient value of -0.39 is insignificant having a probability of 0.78 greater than 5% level of significance. This depicts that lending rate has a negative insignificant effect on globalization.

Also with regards to growth in the gross domestic product which has a coefficient value of 0.07 is insignificant having a probability of 0.77 greater than 5% level of significance. This depicts that GDP growth has a positive insignificant effect on globalization. For unemployment rate, the coefficient of -0.0001 and probability of 0.35 show negative insignificant impact on globalization. This implies that unemployment is inimical to globalization.

We further subject this finding to a confirmatory and justification test. This is by way of testing the existence of long- run relationship by looking at the speed of adjustment. This is captured by Θ_1. The presence of long –run relationship between public sector economic policy and globalization can be examined by testing the significance of the error correction term in the above Table.
For the short run relationship, for there to be a long run relationship among the variables, the coefficients of the variables must be negative and also be significant at 5% level of significance. Using the one –lag period, the results depicts that all the lagged variables are insignificant at 5% level. This is depicted as follows- for BOT it has a coefficient of -1.78 and a probability of 0.27; although this value survived the first condition of negative coefficient, yet it was insignificant at 5 percent. Inflation has no lagged variable.
Lending rate has a coefficient of 1.07 but a probability of 0.21 signifying insignificance; GDP growth has a coefficient of 3.12E-06 and unemployment is -1.24 a probability of 0.36. This depicts existence of no long run relationship between the public sector economic policy and globalization in the short run.
From the above, we conclude

There is the existence of long run relationship between the explanatory variables and the dependent variable in the long run while such does not exist in the short run.

Balance of trade depicts positive significance impact on globalization;
Inflation has a weak positive insignificant effect on globalization.
Lending rate has a negative insignificant effect on globalization.
GDP growth has a positive insignificant effect on globalization;
Unemployment rate show negative insignificant impact on globalization.

Discussion of Findings

The variables co-integrate in the long run depicting the existence of long run relationship between the public sector economic policies and economic globalization in the long run. However such does not exist in the short run since the effects of such policies are expected to be harnessed in the longer time period.

Balance of trade depicts positive significance impact on globalization corroborates the findings of Jansen & Nordas (2004) and Jafari, Ismail & Kouhestani (2011). Although the nation's economy is mono-product based, it has positively impacted on globalization, hence if the economy is diversified more benefits of globalization will be reaped. Inflation has a weak positive insignificant effect on globalization. This further buttresses the other side of liberalization where inflation in one country is contagious and hence discourages liberalization. Lending rate has a negative insignificant effect on globalization. When interest is so high it passes to high cost of production and hence higher prices and impedes exports. This is inimical to openness and is an impediment to global integration.

GDP growth has a positive insignificant effect on globalization. A sustained recorded economic growth in the economy makes that economy an investment haven while the contrary is the case for a stagnant economy. Unemployment rate show negative insignificant impact on globalization. One of the adverse effects of globalization is that it has triggered unemployment. Unemployment level that is high discourages globalization. This is in tandem with the findings of Popoola (2020). The findings does not support the findings of Tahir (2018), however the study corroborates with that of Osei (2019) while it negates the *a prori* expectation of the study.

Conclusion

Economic globalization has not been triggered by economic policies. Hence the growth of economic activities are overwhelmed by myriads of problems such as inadequate infrastructure, exchange rate issues, high unemployment rate, low GDP growth among others. It implies that the objectives of these economic policies are far from been attained. These prohibit foreign investments and trade thereby hampering economic globalization.

This study is poised to investigate the impact of public sector economic policies on economic globalization in Nigeria from 1970 to 2022. The descriptive and econometric statistics were adopted for data analysis. Results depict a long run relationship between economic policies and economic globalization.. In summary apart from balance of trade that depicted positive significance impact on globalization, other economic policy proxies as inflation, lending rate, GDP growth and unemployment rate depicted negative impact on globalization in Nigeria within the reviewed period.

Globalization is stimulated by convergence of cultural and economic systems. Policies that are aligned to such convergence certainly promotes and necessitate increased interactions, integration and interdependence among economies. When they are lacking, then attraction of globalization is inhibited.

Recommendations

The present economic policies need to strengthen to align with global best practices to enhance and attract globalization. Policies inimical to openness or tending towards autarchy should be discouraged. Policies on lending rate, high inflation rate, unemployment rate and GDP growth should be reviewed to ensure stability and confidence to the foreign and local investors. Policies that will strengthen the economy to foster globalization so as to enable Nigeria join the League of Nations that enjoy the benefits of globalization.

References

Anyanwu, J.C. (1993). Monetary Economics: Theory, practices and institutions. Hybrid Publication Ltd.

Chauhry, I.S., Qamber, Y & Farooq, F. (2012). Monetary policy, Inflation and productivity in Pakistan: Exploring the co-integration and causality relationships. *Pakistan Journal of Commerce and Social Sciences*, 6(2), 332-347.

Cioran, Z. (2014). Theories of monetary policy from Mercantilist pragmatism to modern monetary theory, USV annals of Economics and Public Administration, 14(1) 19-34.

Dickey, O. A., and Fuller, D. (1981) "The Likelihood Ratio Statistics for Autoregressive Time Series with a Unit Root" *Econometrica* 251-276

Engle R. F. and Granger, C W J. (1987). Co integration and Error Correction: Representation, Estimation and Testing, *.Econometrica.* 55(2), 51-76.

Havi, E. D. K., & Enu, P. (2014). The effect of fiscal policy and monetary policy on Ghana's productivity: which policy is more potent? *International Journal of empirical finance*, 3 (2): 61-73.

Jafari, Y., Ismail M.P., Kouhestani, M. S. (2011), Determinants of trade flows among D8 Countries: evidence from the gravity model. Journal of Cooperative development, 32(3), 21-38.

Johansen, S (1991) "Estimation and Hypothesis Testing of Co integrating Vectors in Gaussian Vector Auto regression Models" *Econometrica*, 50, 1551- 1580.

Lutkevich, B. (2019). What is globalization? www.techtarget.com

Mackinnon, J. G., (1991). Critical Values of Co integrating Tests. Long run Economic relationships: In, Engle R. F. and Granger, C W J. co integration Advanced Texts in Econometrics by Oxford University Press.

Mishelle, D & Akinola, G (2020). Monetary policy, human capital and productivity in South Africa: an empirical analysis, *A UDCE* 16(1)300-324

Moursi, T.A. & El Mossaillamy, M. (2010). Monetary policy analysis and new Keynesian models for Egypt, *Information and decision support center (IDSC) of the Egyptian Cabinet*. Working Paper

Onoja, A.J (2020). Globalization and its impact on the Nigerian economy. *Sahara Reporters.* www.saharareporters.com

Ossei,D.B., Sare, Y.B., and Ibrahim , M. (2019) On the determinants of trade openness in low and middle income countries in Africa – how important is economic growth. Future Business Journal 5(2). https://doi.org/10.1186/s43039-019-0002-8

Peter, O.N., (2000). Restriction Economy Through Privatization. *The Economist*, 4, 32-34

Popoola, J. (2020). Globalization and Nigeria's economic growth development- A study of the interconnectedness , *Open Journal of Political Science,* 10, 460-480.

Schultz, T.W. (1981). Investigating the people: The Economics of population. University of California Press.

Twinoburyo, T.N., & Odhiambo (2018). Monetary policy and productivity: A review of International literature, *Journal of Central banking Theory and Practice*, 2 123-137.

Vinayagathasan, T. (2013). Monetary policy and the real economy: A structural VAR approach for Sri Lanka, *National Graduate Institute for Policy studies,* 13 (13): 34 56.

Wallerstein, I. (2018). The Modern World: Capitalist Agriculture and the origins of the European World economy in the sixteenth century. New York Academic Press.

Wrightmann, D. (1976). *An introduction to monetary theory and policy*. The Free Press.

Econometric Analysis of Inflation and Monetary Policy Indices in Nigeria

James Akpan
Department of Economics
Nigeria police Academy, Wudil, Kano
Email; jamsakpan@gmail.com

Abstract
This study delved into the intricate web of economic relationships in Nigeria, exploring the interactions between exchange rates, inflation, money supply, and economic growth. The research unveiled valuable insights into the dynamics of Nigeria's economy and its implications for policymakers. Our findings unveiled a noteworthy connection between exchange rates and inflation, underlining the influence of exchange rate fluctuations on inflationary pressures. Additionally, money supply and economic growth were identified as significant factors affecting inflation rates, aligning with theoretical expectations. Notably, these variables collectively explained a substantial portion of the variation in real Gross Domestic Product (LRGDP), signifying their collective influence on economic outcomes. The error correction model (ECM) underscored the statistical significance of the long-term relationships among these variables. In light of these findings, we recommend that policymakers in Nigeria pay close attention to exchange rate policies, monitor and manage money supply, and prioritize economic growth as integral elements in their efforts to control inflation and maintain economic stability. Continuous monitoring and analysis of these variables will be crucial for informed decision-making and effective economic management in Nigeria.
Keywords: ECM, Economic Growth, inflation, monetary policy,

Introduction

Nigeria monetary policy is enhanced to target the reduction in the rate of inflation with the framework of maintaining price stability as a single most important objective of monetary policy. Monetary policy is directed towards the reducing inflation presupposes the existence of a stable and predictable relationship between monetary aggregates and other economic variable in the economy (CBN, 2015).

For most economies, the objectives of monetary policy include price stability, maintenance of balance of payments equilibrium, and promotion of employment, output growth, and sustainable development. These objectives are necessary for the attainment of internal and external balance, and the promotion of long run economic growth. The importance of price stability derives from the harmful effect of price volatility which undermines the objectives. This is indeed a general agreement that domestic price fluctuations undermines the role of monetary values as a store of value, and frustrate investments and growth (Ajayi, 2014).

According to CBN (2012) Monetary Policy refers to the specific actions taken by the Central Bank (Monetary Authority) to regulate the value, supply and cost of money in the economy with a view to achieving predetermine macroeconomic goals. Generally, monetary policy refers to combination of measures designed to regulate the supply of money in an economy in relation to the level of economic activity. Monetary policy refers to the credit control measure adopted by the central bank of a country (Friedman, 2000).

In Nigeria, the major objectives of monetary policy include the attainment of price stability and sustainable economic growth. In pursuing these objectives, the CBN recognizes the existence of conflicts among objectives necessitating some sort of trade-offs. The targets of monetary policy are the

operational target, the intermediate target and the ultimate targets. The Bank manipulates the operating target (reserve money) over which it has substantial direct control to influence the intermediate target (broad money supply, M2) which has impact on the ultimate objective of monetary policy, i.e., inflation and output (CBN, 2012).

While fiscal policy proves helpful in combating inflationary pressure, monetary policy has been the principal tool often employed by the central banks to ensure price stability. While it is not arguable that monetary authority have formulated various policy measures as an attempt to curbing inflationary menace, the effectiveness of policy pursuit to curb inflationary environments is questionable as most economies, particularly developing ones still experience inflationary challenges

Nigeria has faced recurrent episodes of high inflation, exceeding 30 percent, since the early 1970s. These inflationary periods have been characterized by an interplay of factors, including excessive growth in money supply, structural characteristics of the economy, supply shocks such as famine and currency devaluation, and fluctuations in terms of trade. It is imperative to delve deeper into the causes of these high inflation episodes to develop effective strategies for mitigation and stabilization.

One significant episode occurred in 1984 when inflation peaked at 39.6 percent, coinciding with minimal economic growth. The government was pressured to reach an agreement with the International Monetary Fund (IMF), which included devaluing the domestic currency. This impending devaluation expectation exacerbated inflation, as prices adjusted to the parallel exchange rate. Simultaneously, there was an alarming excess money growth of about 43 percent, coupled with a 70 percent increase in credit to the government. These monetary factors underscore the monetary expansion that coincided with high inflation.

Furthermore, the deteriorating terms of external trade experienced by Nigeria at that time also contributed to inflationary pressures. It appears that Nigeria's inflation episodes are preceded by structural or real factors and are subsequently exacerbated by monetary expansion. This complex relationship between structural and monetary factors necessitates a comprehensive understanding of their interplay.

Another high inflation episode occurred in the late 1980s, specifically in the last quarter of 1987, and intensified through 1988 to 1989. This episode was linked to fiscal expansion accompanying the 1988 budget. Initially, this expansion was financed by credit from the Central Bank of Nigeria (CBN), but it later relied on increasing oil revenues, driven by rising oil prices following the Persian Gulf War, which were not effectively sterilized.

Addressing the recurring issue of high inflation in Nigeria requires a multifaceted approach. This research aims to identify the root causes of inflationary episodes, including both structural and monetary factors, to develop policies and strategies that promote stability, economic growth, and price control. By understanding the dynamics of inflation and monetary policy indices in Nigeria, we can work towards a more resilient and stable economic environment that benefits the nation and its people.

Literature Review

Monetary policy

In Nigeria, monetary policy aims to achieve price stability, balance of payments equilibrium, and economic growth. The Central Bank of Nigeria (CBN) is responsible for ensuring these goals by controlling money supply, interest rates, and total credit. Salvin (2011) defines monetary policy as the use of tools like open market operations, changes in discount rates, and reserve requirements to manage money supply growth. The primary objectives are price stability, full employment, and economic growth.

Olumechere (2013) views monetary policy measures as government actions to regulate money supply in support of national goals. According to Umole (2008), monetary policy involves controlling money supply to achieve broader economic objectives. Ezeugo (2011) shares this perspective, emphasizing that it entails specific measures to stimulate economic sectors, generate employment, control inflation, manage the balance of payments, and encourage savings.

Inflation

Inflation is a commonly discussed economic concept, often misunderstood. Economists generally agree that inflation refers to a continuous increase in prices. In simpler terms, it's when prices for goods and services keep going up. It can be defined as a "continuous rise in prices," as measured by indices like the Consumer Price Index (CPI) or the implicit price deflator for Gross National Product (GNP) (CBN, 2013).

Inflation is often described as a situation where there is "too much money chasing too few goods." When inflation happens, the value of currency decreases, meaning that the same amount of money can buy less over time. For example, if you could buy 10 shirts for N10.00 in one period, and the shirt prices double in the next period, that same N10.00 would only buy 5 shirts (CBN, 2012).

Two crucial aspects of the definition of inflation must be noted. First, it must be a general increase in prices that covers the entire range of goods in the economy, not just isolated price increases for individual items or groups of items. Second, this increase in the overall price level must be continuous and sustained over time, as opposed to a one-time price spike (CBN, 2015).

In broad terms, inflation can be categorized into four types based on its magnitude:

Creeping Inflation: This occurs when prices rise very slowly, with an annual increase of less than 3 percent. Such mild price increases are seen as safe and conducive to economic growth (CBN, 2012).

Walking Inflation: Walking inflation happens when prices rise moderately, with an annual inflation rate in the single digits, typically between 3 and less than 10 percent. This level of inflation serves as a warning sign for the government to take measures before it turns into running inflation (CBN, 2012).

Running Inflation: When prices rise rapidly, at a rate of 10 to 20 percent annually, it's referred to as running inflation. This type of inflation has severe effects on lower and middle-income individuals and requires strong monetary and fiscal interventions for control (CBN, 2012).

Hyperinflation: Hyperinflation occurs when prices soar at double or triple-digit rates. In extreme cases, the inflation rate becomes immeasurable and uncontrollable. Prices can rise multiple times a day, leading to the collapse of the monetary system due to the rapid erosion of purchasing power (CBN, 2012).

Theoretical and Empirical Underpinnings

According to J.M Keynes (1976), "an inverse in the quantity of money increases aggregate money demand on investment as a result of the fall in the rate of interest". The increase investment will raise effective demand through the multiplier affect thereby increasing income, output and employment. Therefore, when there is full employment, increase in income and output, price will change in the same proportion as the quantity of money (Jhingan, 2003). This theory deals on short run economy, which tends toward s the area of macroeconomics but has contributed greatly to monetary economic.

In the Keynesian analysis, monetary policy plays a crucial role in affecting economic activity. It contends that a change in the supply of money can permanently change such variables as the rate of interest, the aggregate demand and the level of employment, output and income. Keynes believed in the existence of unemployment equilibrium. This implies that an income in money supply can bring about permanent increases in the level of output. This rise in supply of money, its first effect is on the rate of interest which tends to fall. Given the marginal efficiency of capital, a fall in the rate of interest will increase investment. The increased investment will raise effective demand through the multiplier effect thereby increasing income, output and employment.

Proceedings of the 4th Annual International Academic Conference

Consequently, Akcay (2014) uses annual Turkish data to analyze the existence of a stable long-run relationship between budget deficits, money growth and inflation, and the results according to them was affirmative. Using the co-integrating vectors found in the study, they concluded that a significant impact of budget deficit on inflation cannot be refuted under the assumption of long-run monetary neutrality. However, when an unrestricted VAR model was utilized on quarterly data corresponding to the post bond financing period, the results were suggestive of a weakened link from the other variables to inflation.

Kilindo (2013) attempted an experience of Tanzania's economic relationship between fiscal operations, money supply and inflation. Testing the structural model for the period of 1970-84, the evidenced by the significant coefficients of the structural model and simulation results, shows a strong relationship between fiscal operation, money supply and inflation in Tanzania.

Kibritcioglu (2012) consolidates the earlier work in Akcay*et al.,* (2008) by confirming the persistence of inflation in Turkey as a net result of sophisticated dynamic interaction of four group of explanatory factors of demand-side (monetary) shock, supply-side (or real) shocks, adjustment factors, and political processes. This means that an inflationary growth is a result of in-appropriation of various structural and economic factors.

Akinboade (2014) explain the dynamics of inflation in South Africa and in their model which relates domestics inflation to a largely structural phenomenon in the money market, labour market and foreign exchange market conditions, suggests that there is a positive correlation between labour costs, broad money supply and domestic inflation which in the long-run, rising labour costs contribute significantly to inflation. In their view, an increase in the nominal interest rates, the effect of which is insignificant in the short-run will slightly reduce inflation in the long-run, while an increase in the broad money supply will contribute to domestic inflation in the long-run.

Research Method and Result

This research adopts an ex-post facto design because the nature of the variable in which the researcher does not have any control over these variables. Also this study is based on a multiple regression analysis with OLS estimating technique. This chapter provides the model specification the estimation technique and the evaluation mechanism of the study.

The method adopted for evaluation of the specific objectives one and two is the multiple linear regression method using Ordinary Least Square (OLS) estimators. To capture the objectives stated in this study, the following econometric model was estimated. Hence, the specification of model adopted was based on the following functional relationship.

$$\mathbf{INF = f(MS, EXR, RGDP, INF)}$$

Where: INF_t = Inflation Rate (%), MS_t = changes in money Supply (%), EXR_t = Exchange rate (₦/$), $RGDP_t$ = Growth Rate of Real Gross Domestic Product (%)

Unit Root Test

In this study, we used the Augmented Dickey Fuller (ADF) Unit root test to check if our variables are stationary. The null hypothesis assumes that the variables have a unit root, while the alternative suggests they do not. To make a decision, we compare the absolute ADF statistic value to the critical value at our chosen significance level. If the ADF statistic is greater, we reject the null hypothesis; otherwise, we don't. We determined the lag length using the Akaike and Schwartz information criteria, and the results can be found in the table below. We conducted the Augmented Dickey-Fuller (ADF) test at a 5% significance level, considering both trend and intercept in the data.

Trend and Intercept

Series	ADF Test Statistic at 1st difference	5% critical values	Order of integration	Remarks
EXR	-5.267327	-3.552973	1	**Stationary**
INF	-6.181542	-3.552973	1	**Stationary**
INF_{t-1}	-6.081680	-3.557759	1	**Stationary**
MS2	**-7.689143**	**-3.552973**	**1**	**Stationary**

The absolute unit root test indicates that RGDP remained stable at its current levels and exhibited zero integration, denoted as I(0). On the other hand, variables such as EXR, INF, INFt-1, and MS2 were not steady at their original levels but showed stationarity when analyzed in their first differences using the ADF test. When we examined these variables using the Augmented Dickey-Fuller test with both trend and intercept, their calculated statistics exceeded the critical values at a 5% significance level when considering first differences. This suggests that their time series were of the same order of integration, specifically I(1), as indicated by both the ADF and PP tests.

Long Run Assessment {Johanson Criterion}

Once all the variables are integrated of order one, it's necessary to examine their long-term relationship. This study utilizes the Engle and Granger cointegration test, which involves conducting an ADF test on the model's residuals. If the residuals are stationary at the original level, it signifies cointegration among the variables. In our analysis, the residual of the model was found to be stationary at the original level at a 5% significance level, indicated by the ADF statistic's absolute value exceeding the critical value. This confirms the presence of a long-term relationship among the variables. See the results below for more details.

Series	ADF Test Statistic	5% critical values	Order of integration	Remarks
U	**-5.369211**	**-3.552973**	**0**	**Stationary**

Long Run Adjustment Mechanism

The Error Correction Model (ECM) conducts a regression analysis to determine the rate at which the system adjusts towards long-term equilibrium. It effectively illustrates the model's movement towards this equilibrium. In the following outcome, the coefficient associated with the lagged residual term is both negative and statistically significant at the 5% level. This implies that the model has a rate of adjustment of 18.9136%, signifying how quickly it converges towards long-term equilibrium. $\Delta INFt = f(\Delta EXRt, \Delta EXR_{t-1}, \Delta EXR_{t-2}, \Delta MS_t, \Delta MS_{t-1}, \Delta MS_{t-2}, \Delta RGDP_t, \Delta RGDP_{t-1}, \Delta RGDP_{t-2}, \Delta INFt, \Delta INF_{t-1}, \Delta INF_{t-2}, ECM_{-1})$

Inflation and Monetary Policy Indices Dynamics in Nigeria

Dependent Variable: D(INF)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.610338	2.175327	1.199975	0.2406
D(EXR)	0.166469	0.097166	1.713251	0.0981
D(INFT_1)	-0.260463	0.082061	-3.174000	**0.0037**
D(MS2)	20.87520	9.015741	2.315417	**0.0284**
RGDP	-0.872607	0.321223	-2.716517	**0.0114**
ECM-1	-0.189136	0.110524	10.75908	**0.0000**

R-squared 0.836041 Adjusted R-squared 0.805678 Durbin-Watson stat 0.937164; F-statistic 27.53509; Prob(F-statistic) 0.000000

The coefficient for the exchange rate (EXR) is 0.166469, indicating a positive relationship with inflation (INF). Holding other variables constant, a 1% increase in EXR leads to an average 16.6469% increase in INF, aligning with our expectations. The t-statistic for EXR, at 1.713251, is less than 2, and the p-value, 0.0981, is less than 0.05, confirming the statistical significance of EXR. The coefficient for the one-period lag of inflation (INFt-1) is -0.260463, implying a negative relationship with INF. A 1% increase in INFt-1 results in a 26.0463% decrease in INF, consistent with expectations. The t-statistic for INFt-1 is -3.174000, exceeding 2, and the p-value, 0.0037, is less than 0.05, confirming the statistical significance of INFt-1.

The coefficient for money supply (MS2) is 20.87520, indicating a positive relationship with INF. A 1% increase in MS2 corresponds to a substantial 2087.520% increase in INF, aligning with our economic expectations. The t-statistic for MS2 is 2.315417, exceeding 2, and the p-value, 0.0284, is less than 0.05, confirming the statistical significance of MS2. The coefficient for Real Gross Domestic Product (RGDP) is -0.872607, implying a negative relationship with INF. A 1% increase in RGDP leads to an 87.2607% decrease in INF, consistent with economic expectations. The t-statistic for RGDP is -2.716517, exceeding 2, and the p-value, 0.0114, is less than 0.05, confirming the statistical significance of RGDP.

Determination (R2) stands at 0.836041, meaning that EXR, INFt-1, MS2, and RGDP explain approximately 83.6041% of the variance in the dependent variable, LRGDP, signifying a good model fit. The F-statistic, with an absolute value of 27.53509 and a probability of 0.000000, confirms the joint statistical significance of the model's variables.

The error term, ECM, indicates the speed of adjustment back to equilibrium following any disequilibrium in the system. The probability value of ECM in Table 4.4.1 indicates a significant relationship with economic growth in Nigeria. The system returns to equilibrium at a rate of 18.9136%, highlighting the statistical significance of the long-term relationship between the variables. This conclusion is based on the ECM's probability value (0.0000), which is lower than the assumed 0.05 significance level.

Conclusion

This study examined the relationships between key economic variables in Nigeria, including exchange rates, inflation, money supply, and economic growth. The findings indicate significant associations between these variables, providing valuable insights into the country's economic dynamics. The exchange rate (EXR) exhibited a positive relationship with inflation (INF), suggesting that ex-

change rate movements can impact inflation levels. Money supply (MS2) and economic growth (RGDP) also played significant roles in influencing inflation rates. These findings align with economic expectations. Furthermore, the analysis revealed that the variables jointly contribute to explaining a substantial portion of the variation in real Gross Domestic Product (LRGDP). The error correction model (ECM) highlighted the significance of the long-term relationship among these variables, emphasizing the importance of monitoring and managing them collectively.

Recommendations

Exchange Rate Policy: Given the positive relationship between the exchange rate (EXR) and inflation (INF), policymakers should carefully consider the implications of exchange rate movements on inflationary pressures. Developing strategies to manage and stabilize exchange rates may help control inflation.

Inflation Management: To curb inflation, policymakers should focus on controlling the money supply (MS2) and promoting economic growth (RGDP). Effective management of these factors can contribute to price stability.

Monitoring and Analysis: Continuous monitoring of economic indicators, such as EXR, MS2, RGDP, and inflation (INF), is crucial for informed decision-making. Regular analysis of these variables can aid in predicting and managing economic fluctuations.

References

Ajayi, (2014). Capital Market Performance and the Nigerian Economic Growth." In Issues in Money, Finance and Economic Management in Nigeria – Essays in Honour of Professor ObasanmiOlakanpo, Edited By O. O. Fakiyesi and OlasupoAkano; University of Lagos Press.

Akcay (2014). Inflation and Stock Price Behavior: Evidence from Nigerian Stock Market. Journal of Financial Management & Analysis, XX(14)(1), 1-10.

Akinboade (2014). Stock prices, inflation, and output: Evidence from China. Applied Economics.

Dickey, D. A., & Fuller, W. A. (1979). Distribution of the Estimators for Autoregressive Time Series with a Unit Root. Journal of American Statistical Association, 74, 427-431.

Dickey, D., & Fuller, W. (1981). Likelihood Ratio Tests for Autoregressive Time Series with a Unit Root. Econometrica, 49, 1057-1072.

Engle, R. F., & Granger, C. W. J. (1987). Cointegration and Error Correction: Representation, Estimation, and Testing. Econometrica, 55(2), 251-276.

Ezeugo (2011). The Nigerian Financial Markets. Bullion Publication of the Central Bank of Nigeria, Vol. 18, No. 2.

Friedman, M. (2000). The Quantity Theory of Money – A Restatement. Reprinted from Studies in the Quantity Theory of Money, University of Chicago Press.

Granger, C. (1981). Some Properties of Time Series Data and Their Use in Econometric Model Specification. Journal of Econometrics, 16, 121-130.

Granger, C., & Newbold, P. (1974). Spurious Regressions in Econometrics. Journal of Econometrics, 2, 111-120.

Kilindo (2013). Public Interpretation of Federal Reserve Discount Rate Changes: Evidence on the 'Announcement Effect'. Econometrica, Vol. 38, 231-250.

Olumechere (2013). The Economics of Money, Banking and Financial Markets. Eighth Edition. Pearson Addison Wesley. New York.

Tsoukalas, D. (2003). Macroeconomic Factors and Stock Prices in the Emerging Cypriot Equity Market. Managerial Finance, 29(4), 87-92.

Uchendu (2012). The Transmission of Monetary Policy in Nigeria. Central Bank of Nigeria: Economic and Financial Review, 34(2), 606 – 625.

Umole (2008). Dynamic Relations Between Macroeconomic Variables and the Japanese Stock Market: An Application of Vector Error Correction Model. The Journal of Financial Research, XVIII(2), 223-237.

Scanning for Empirical Consistencies in Friedman's K Principle: The Nigerian Experience

Priye W. Andabai PhD
Head of Department **of** Department of Banking and Finance
Niger Delta University Wilberforce Island-Nigeria
Tonprebofa Waikumo Okotori PhD
Department of Banking and Finance
Niger Delta University Wilberforce Island-Nigeria
tonprebofa@gmail.com
https://orcid.org/0000-0002-4114-6052

Abstract
The study examined the usefulness of Friedman's constant k principle as a tool in monetary policy implementation to stabilize inflation in Nigeria. Monthly time series data from 2009-2021 were used in estimating the model. The ARDL methodology was adopted in analyzing the estimated model. The ADF test for stationarity shows that at the first difference, I (I) every variable is stationary except for the monetary policy rate; which is stationary at level, I (0). The model's long run dynamics were examined using the ARDL, econometric technique as well as Bound Test for Co-integration. The findings suggest that, at a 5 per cent level of significance, the exchange rate, the cash reserve requirement, and the statutory liquidity ratio all exhibit a long-term link with the inflation rate. Since the money supply (M2%/GDP %) was significant at the 10 per cent level of significance, it did suggest a long-term nexus with the inflation rate. The findings bring to the fore, the usefulness of money supply growth as well as the fact that the CBN needs to factor Friedman's constant K principle in its monetary policy implementation.
Unique Contribution/Originality: This study is adding to the existing literature on the subject matter in Nigeria by showing that Friedman's constant k principle has real relevance based on the present global spike in the rate of inflation as experienced in Nigeria and the relevance of monetary aggregates in the macroeconomic stabilization of Nigeria's economy. This study is the first to adopt Friedman's constant k principle via the use of ARDL technique in Nigeria.
Keywords: Central Bank of Nigeria, Autoregressive Distributive Lag, Friedman's Constant k principle, Broad money supply, Gross Domestic Product,
JEL Classifications: E4, E5, E6, F6.

Introduction

The typical Nigerian's standard of living has suffered as a result of the country's issue with growing inflation. According to several experts, Nigeria's inflation is mostly caused by rising money growth (Ebipre & Amaegberi, 2020). Changes in the value of money stock are important in determining the course of economic events (Khan, 1982). There was a similar deterioration in Zimbabwe during the first decade in 2000's when "monetary expansion continued through 2006, 2007 and 2008, as the Central Bank printed money to finance all sectors of the economy; the annual money supply growth expanded from 1,416 per cent in December 2006 to 64,113 per cent in December 2007, before peaking at 431 quintillion per cent in December 2008" (RBZ, 2009). Concomitantly, inflation also rose from 1,281.1 per cent in December 2006 to 66,212.3 per cent in December 2007 and 231 million per cent by the end of July 2008 in Zimbabwe (Kavila & Le Roux, 2017).

The supply of money (broad), consists of currency in circulation, demand deposits/current accounts, and quasi money, or the combination of savings, fixed, and foreign currency deposits, spiked by an astounding 23 per cent from N38.5 trillion in April 2021 to N47.2 trillion in April 2022, according to data from the CBN. This is a marked spike over the 16 per cent average growth rate for money supply observed in the span of four years that covered the period April 2018 and April 2021. Griswold (2006) observed "that the Finance Minister of Zimbabwe admitted that that inflation at 1,070 per-

cent in the year to October—was excessive, blaming money supply expansion of more than 1,000 per cent as predicted by Professor Friedman". Friedman postulated that the central bank should be forced to expand the money supply at a constant rate, equivalent to the rate of growth of real gross domestic product (GDP). Miller (2022) did observe "that the Friedman rule, in effect, performed something he called a monetary counterpell. If money illusion can disrupt an economy; then the Friedman rule can temper its effect, like a stronger version of making price level stable".

The business cycle observation made earlier researchers to focus on the procyclical movement "of the nominal money stock; as reported by Friedman and Schwartz (1963); Freeman, and Kydland (1998). Friedman opined that "wage/price controls merely treated the symptoms of inflation, while the root cause was excessive money growth", further suggesting "that although controls might lead to a temporary reduction in the rate of inflation, they could not succeed on a permanent basis without creating severe shortages in the economy" (Sumner, 2022).

In recent decades the postulations of Friedman have been discarded by many researchers based on the experience in the United States and other developed countries. Bernanke (2006) asked "Why have monetary aggregates not been more influential in U.S. monetary policymaking, despite the strong theoretical presumption that money growth should be linked to growth in nominal aggregates and to inflation?" Though Nelson (2002) had findings that were contrary to this generalized conclusion, it was observed that over the past decade, trend of real GDP growth for the US has fallen to about 1.5 per cent, mostly due to slower labour force growth (retiring boomers and fewer immigrants.); hence the central government needed to generate roughly 3.5 per cent of nominal GDP growth to maintain its 2 per cent inflation target (Summer, 2022).

Summer (2021) as referenced in Landau (2021) warned about the risks attached to the 1.9 trillion US Dollars fiscal stimulus pushed by the new US administration; specifically stating that it "will set off inflationary pressures of a kind we have not seen in a generation" as was also observed by Blanchard (2021). These fears of aggravated level of money supply may be the cause of the current spike in US inflation rate.

Lynch (2022) opined "that over the past two years, as the Federal Reserve fought to rescue the economy from the clutches of the coronavirus, the central bank's emergency remedies increased the nation's money supply by an astonishing 40 percent". The argument put forward by Greenwood and Hanke (2022) was that "current bout of US inflation is largely the result of supply chain disruptions that will turn out to be transitory, and" that the inflationary pressures will dissipate in 2022 as the supply chain issues are resolved; the inflation spiral has not abated in 2023; the supply chain disruptions led to a situation of fewer goods being available and more money chasing fewer goods; this is bound to be inflationary.

The radical findings of De Grauvre and Polan (2005) and the corresponding findings of Thornton (2011) for the African continent leaves us with the question on the relevance of the quantity theory and Friedman's constant K principle as well as monetary targeting in the Central Bank of Nigeria's monetary policy implementation. However, the findings by Salami and Kalikume (2013) did not find monetary aggregates having the impact envisaged by Friedman as did Achua, Nagado, and Okafor (2020). The broad assessment of the recommendation by Friedman and the findings by De Grauvre and Polan (2005) leave us with the problem on whether monetary aggregates have traction on inflation in Nigeria as well as the usefulness of Friedman' constant principle in addressing Nigeria's intractable inflation problem.

The effective diagnosis of a problem goes a long way to providing useful solution to that problem: the findings of this research will assist the country's monetary authority tackle inflation more timely as well as preemptively. It will also assist other researchers to predict far more accurately the incidence of possible inflation based on observed data. Thus, the study's main objective is to empirically analyze the effect of Friedman's constant K on inflation stabilization in Nigeria. The remaining portion of this paper is broken down into the following sections: a review of pertinent literature, research methods, findings/study results, and conclusion.

Literature Review

Baseline Theory: Monetarism

The proponents of the modern quantity that belong to the " neo-classical school of economic think-

ing do see the occurrence of inflation as being mainly a monetary phenomenon and that; this happens as a result of rapid increase in the quantity of money more than in output (Friedman, 1956; Okotori, 2017; 2019)". The opinion of Mordi (2009) was that the "underpinning theory in Nigeria was the quantity theory and that this accounts for the CBN's monetary policy framework's targeting of money. The operating target, base money is set on the relationship between money supply and base money and this is based on the assumption of a stable money multiplier k, which is illustrated as follows:

$$M2 = kBM$$

Where: $M2$ is broad money supply, k is the money multiplier and BM is base money.

Concepts of road money supply

Broad money supply (M2) is made up of the available coins and bills, as well as other easily convertible money equivalents, bank short-term time deposits and money market funds available around 24 hours. The Central Bank of Nigeria sees M2 as M1, plus savings and small time deposits, overnight commercial bank deposits, plus non-institutional money market accounts (CBN, 2018; Omodero, 2019**;** Omankhanlen, Samuell-Hope, & Ehikioya, 2022). M2 is used as an indicator of possible increases or decreases in inflation levels. This is because it is a broader measure of the money supply in an economy than when compared with M1 – which only looks at money that is in the hands of the public. The discarding of M2 as a useful tool in inflation stabilization in most developed countries seem to fade away in the face of the current global supply chain and energy crises.

Inflation is a persistent, "but sustained rise in general price level; it has also been seen as a persistent rise in the general price level rather than a once-and-for-all rise in it" (Ahuja, 2013; Obi & Ossai, 2022). Inflation occurs; when there are too many people spending greater amount of money to buy fewer goods and services, this is referred to as inflation. The fact that there are too many people spending increased amount of money to buy too fewer goods and services, is inflationary. It "is an economic situation where the increase in the money supply is more than the additional output of goods and services produced in the economy" (Hamilton, 2001; Orubu, 2009; Okotori, 2019).

Friedman's K Principle

Milton Friedman postulated that the central bank should be required to target the growth rate of money to equal the growth rate of real GDP, leaving the price level unchanged; that if the economy is expected to grow at 2 percent in a given year, the central bank should allow the money supply to increase by 2 percent. He recommended that the central bank (Federal Reserve) "should be bound to fixed rules in conducting monetary policy because discretionary power can destabilize the economy".- The study adopts the above as the theoretical foundation for this research in addition to the revealed findings of De Grauvre and Polan (2005).

Empirical Review

The relationship between monetary factors and the inflation rate has been examined in a number of research. For instance, Xie, Tang, and Cui (2009) used co-integration and Granger Causality test approaches to analyze "the relationship among money supply, economic growth, and inflation in china from" 1998 to 2007 and their findings revealed "that there is no co-integration relationship between money supply, inflation, and economic growth", but that 'there is a relationship between money supply and inflation while there is no relationship between money supply and economic growth". In China, "the objectives of stability in price and output growth conflict"; the position of Friedman aligns to the goal of increase economic growth without the incidence of inflation in the long run.

Additionally, Benamari, Cherif, and Benbouziane (2011) used the "Granger causality test to examine the money-price link in the three Maghreb nations of Algeria, Morocco, and Tunisia". The findings do not typically support the quantity theorist's hypothesis that prices and money have a long-term relationship, i.e., that they do not typically drift apart over time. Granger (1986) hypothesized that money and prices may still cointegrate if other variables that might have affected prices were

taken into account in the cointegration regressions. Second, the observation in the cases of Morocco and Tunisia "that there is a one-way causal relationship between money and prices is consistent with the monetarist theory that money precedes and drives inflation". In reality, this result confirms Darrat's (1986) observation that Morocco and Tunisia experience inflation as a result of money. Therefore, to affect and manage inflation, the monetary authorities in these two nations may think about controlling the money supply (M1) or (M2). This study did not look at the effect on output growth in the three Maghreb nations.

Similarly, Shuaibu and Babatunde (2011) developed "a monetary growth model for Nigeria by looking at whether there was a significant long-run link between the money supply, capital stock, inflation, and economic growth between 1975 and 2008". The findings revealed a significant and positive association between the "money supply and capital stock while a negative relationship between inflation and growth" was discovered, yet in analyzing the success of any given economy a process that reduce inflation and enhance output growth would have been far more useful. Simwaka, Ligoya, Kabango, and Chikonda's (2012) study on "the not so significant relevance of monetary factors in Malawi's inflation also considered these factors". The stylized inflation model is offered and includes the exchange rate, supply-side variables, and traditional monetary variables. The results imply that both supply-side and monetary factors influence inflation in Malawi. Growing monetary supply drives inflation, which typically lags by three to six months. On the other hand, exchange rate fluctuations have a much larger contribution to cost-push inflation. It was also mentioned that output lulls contribute to inflationary pressures. The study seem to allude to the Friedman's constant k principle as it seem to suggest the need of an optimal approach.

Once more, the study by Tule, Obioma, Okpanachi, Odeniran, and Olaoye (2015) looked at a crucial link (money/inflation) that underpins how monetary policy is carried out in Nigeria. The findings, which indicated that the money supply's coefficients in the inflation equation were both positive and substantial, suggested that "the money supply and inflation have a long-term positive relationship". The study "reveals that there is some correlation between inflation and monetary aggregate growth, but that correlation has been declining recently". As the economy gets more complex, the report advised the CBN to look beyond the monetary aggregates in its composition. By 2013 to 2014 the Nigerian economy experienced single digit inflation figures as inflation fell within the CBN's target inflation range of 6-9%, and going by the findings De Grauvre and Polan (2005), such an observation is expected ; but since mid-2015 the country's inflation has remained above 10%, even rising to over 20%.

Furthermore, to ascertain "whether such a nexus in China supports the quantity theory of money, Su," et al.(2016) examined the causal relationship between Chinese money supply growth and inflation using the bootstrap Granger full-sample causality test and sub-sample rolling-window estimation test. Findings did suggest "that there is a unidirectional relationship between inflation and the expansion of the money supply". However, the study discovered that short-run connections utilizing full-sample data are unstable when taking structural changes in two series into account, indicating that full-sample causality tests cannot be trusted. Assessing it through the standpoint of "money supply and price level, these findings are essentially congruent with the contemporary quantity theory of money". Inflation shouldn't be controlled just by reducing "the money supply when the growth of the money supply is not greater than the increase of output". It points out that China's "economic growth and price level stability depend on a stable expansion in the money supply". The foregoing is a submission in support of Friedman's constant key principle.

Similar to this, Korkmaz (2017) used a panel causality technique to examine the money supply and its link with inflation and economic growth in nine chosen Mediterranean nations from 2008 to 2014. According to the data, "there is a one-way causal relationship between the money supply and inflation but none between the money supply and economic growth". The use of money supply as a tool without output growth has the potential to contract the economy in the case of a contractionary policy approach and might even lead to a recession. Additionally, Bekiros et al. (2017) used a time -frequency technique to investigate the nexus that links inflation and money supply increase in Malaysia, India, and Japan, three Asian economies.

Contrary to the majority of the previous literature examining this relationship, the use of a unified

multi-scale approach enables the researchers to provide a continuous assessment of the relationship between money supply growth and inflation. A bivariate frequency-domain causality test was also used in the study to establish the type and direction of the relationship between inflation dynamics and money supply growth. The results offer a better knowledge of their lead-lag links and causal relationship in the Asia-Pacific region's chosen countries. It offers a solution that might reduce inflation but minimize output growth.

Additionally, Amassoma, Onyedikachi, and Sunday (2018) examined how Nigeria's money supply affects inflation. Results revealed "that despite the country being in a recession, the money supply had no effect on inflation in either the long or near term". According to the report, the government should encourage local goods and service production to diversify the economy and reduce reliance on imports. The economic theories of Fisher and Friedman were also examined by Dinh (2019), and an econometric model was used to examine the connection between the money supply and inflation. Additionally, research data from China and Vietnam were gathered for the years 2012 to 2016. The Quantity Theory of Money was used to evaluate the data, and the results show "that while a continual rise in the money supply does not create inflation in the near term, it does cause inflation over the long run". Furthermore, the connection between "money supply growth and inflation in Vietnam and China is 99.1%".

Similar to that, Maune, Matanda, and Mundonde (2020) did use "a multiple linear regression model to empirically look at the relationship between Zimbabwe's money supply and inflation from 1980 to 2019". Data were acquired from the World Bank, the IMF's International Financial Statistics, and other credible, reliable, and relevant sources in order to perform an in-depth examination of that relationship. Results indicate that "during the study period, inflation in Zimbabwe was" inversely linked to the rate of exchange and budget deficits and directly related to money supply". According to "Milton Friedman's monetary rule, which states that inflation is solely a monetary phenomenon that can only be caused by expanding the money supply at a faster rate than the growth of capacity" output, the study recommended "that money supply growth be made to equate real economic growth".

Again, Abeng, Itodo, Idoko and Nwafor (2021) looked at "the traditional money supply - inflation nexus, presented in Fisher's equation, but relaxed its basic assumption of constant level of output, within the context of the Nigerian economy"; by examining "the influence of inflation on the growth prospects of the Nigerian economy, the study employs the autoregressive distributed lag on the selected variables, i.e. real gross domestic product (GDP), inflation rate, interest rate, exchange rate, degree of economy`s openness, money supply, and government consumption expenditures for the period 1980–2018". The results demonstrate that whereas the "supply of money did show a positive and statistically significant influence on the rate of inflation within the period low economic growth, the effect was instead negative and statistically significant during times of "high economic growth". The findings supports Friedman's constant k principle.

Additionally, Eltejaei and Shoorekchali (2021) looked at Turkey's experience over the past seven decades, which has seen fluctuating inflation rates. They used "a Markov Switching Vector Autoregressive model (MS-VAR)," which takes into account regime shifts, to test the hypothesis "that the causal link between Broad Money Growth (BMG) and inflation is not constant over the period 1961–2019". Findings indicate that there hasn't always been a direct link between BMG and inflation, and that different regimes have produced distinct causality trajectories.

Inflation had a one-way causal relationship with BMG from 1971 and 2001, when inflation rates were high. Meanwhile, "there was a one-way causal association between BMG and inflation between the years 1961–1970 and 2002–19, when the economy of Turkey saw moderate inflation rates". From 1971 to 2001, while inflation rates were high, "there was a one-way causal relationship between inflation and BMG". Between the years 1961–1970 "and 2002–19, when the Turkish economy experienced modest inflation rates, there was a one-way causal link between BMG and inflation". Macroeconomic stabilization as a mandate to the central bank can only be effective if inflation is brought within acceptable thresholds and output growth is enhanced.

Additionally, Nguyen, Hoang, and Le (2022) looked into the connection between "the inflation and money supply in Vietnam from 2005 to 2021". The research team gathered information on money

supply and inflation rate, then examined this relationship throughout three time periods—2005–2011, 2012–2019, and 2019–2021—in order "to examine the relationship between money supply and inflation in Vietnam during the period of 2005–2021". The research team then gathered consumer price index (CPI) and money supply (MS - total means of payment) data on "a quarterly basis from the first quarter of 2005 through the fourth quarter of 2021". The model's findings are consistent with the idea that historical inflation and growing money supply are two factors influencing inflation in Vietnam. The study missed out the possibility of having an optimal policy approach.

Research Gap

No study has looked precisely at Friedman's constant k principle to see if that connection had any bearing on inflation rates. All of the following works make references to this nexus: Maune, Matanda, and Mundonde (2020); Abeng, Itodo, Idoko, and Nwafor (2021); Eltejaei and Shoorekchali (2022); Buthelezi (2023); and Ofori, Danquah, and Zhang (2017). But the real query is, "Is there a nexus?" a policy approach that achieves an inflation rate within given thresholds and increases output growth as postulated by Friedman is a tool that the CBN has to consider.

Methodology

As the examination begins after the facts have already transpired, this study used a quasi-experimental or ex post facto research approach (Okotori, 2017; 2019; Okotori & Eze, 2020). *Ex post facto* design is a type of causal comparison design that is employed "when the researcher wants to show a causal relationship between the independent and dependent variables" (Kerlinger, 1978; Onwumere, 2005). The rate of Inflation, money supply, monetary policy rate, rate of exchange, cash reserve requirement, treasury bill rate, and statutory liquidity ratio are among the variables adopted by this study. The variables are time series data collected on a monthly basis between January 1, 2009, and December 31, 2021. The historical information was obtained from the CBN statistical bulletin and the Nigerian Bureau of Statistics from 2009 to 2021.

Model Specification

The empirical model to explain the influence of monetary aggregates on inflation rate in Nigeria is built on the augmented Friedman constant principle. The functional model is specified as follows:

$$INFL = f(EXR, M2/RGDP, MPR, REQ, SLR, TBR) \quad (1)$$

In equation 1, INFL represents inflation rate; M2/RGDP is the ratio of broad money supply to real GDP; EXR is exchange rate; MPR is monetary policy rate; REQ is required reserve ratio; SLR is statutory liquidity ratio; and TBR is Treasury bill rate. Then the equation (1) is re-stated as:

Putting it in an econometric form, equation 2 becomes:

$$INFL_t = \alpha_0 + \alpha_1 EXR_t + \alpha_2 M2/RGDP_t + \alpha_3 MPR_t + \alpha_4 REQ_t + \alpha_5 SLR_t + \alpha_6 TBR_t + \mu_t \quad (2)$$

where μ_t stands "for the error term, $\alpha_0, \alpha_1, \ldots, \alpha_6$ are parameters, and t implies time in months. It is expected that" $\alpha_1, \alpha_2 > 0$; $\alpha_3, \alpha_4, \alpha_5, \alpha_6 < 0$

Estimation Method

The "Autoregressive Distributed Lag (ARDL)" methodology was used in the investigation. "The ARDL is a dynamic estimation approach that yields accurate estimates even when the study's variables have various integration orders, such as zero (0) and one (1). The ARDL approach, in this situation, is appropriate for such a model since the effect of an adjustment in the inflation rate to a change in its determinants may take time and not be instantaneous. Equation (2)'s ARDL technique variant assumes ignorance "of the direction of the long-term relationship among the variables", just like equation (3).

$$INFL_t = \beta_0 + \sum_{i=1}^{n} \beta_1 \Delta INFL_{t-i} + \sum_{i=1}^{n} \beta_2 \Delta EXR_{t-i} + \sum_{i=1}^{n} \beta_3 \Delta M2/RGDP_{t-i} + \sum_{i=1}^{n} \beta_4 \Delta MPR_{t-i} + \sum_{i=1}^{n} \beta_5 \Delta REQ_{t-i} + \sum_{i=1}^{n} \beta_6 \Delta SLR_{t-i} + \sum_{i=1}^{n} \beta_7 \Delta TBR_{t-i} + \gamma_1 EXR_t + \gamma_2 M2/RGDP_t + \gamma_3 MPR_t + \gamma_4 REQ_t + \gamma_5 SLR_t + \gamma_6 TBR_t + \mu_t \quad (3)$$

The examination employed "the Autoregressive Distributed Lag (ARDL)" methodology, which is a dynamic estimation approach that produces precise estimates even when the study's variables have different integration orders, like zero (0) and one (1). In this case, the ARDL technique is acceptable for such a model because it may take some time for the inflation rate to respond to a change in its drivers. Similar to equation (3), the ARDL approach variation of equation (2) also presupposes ignorance about :"the direction of the long-term relationship among the variables".

$$INFL_t = \gamma_0 + \gamma_1 EXR_t + \gamma_2 M2/RGDP_t + \gamma_3 MPR_t + \gamma_4 REQ_t + \gamma_5 SLR_t + \gamma_6 TBR_t + \mu_t \quad (4)$$

In equation (4), $\gamma_0, \gamma_1, \ldots, \gamma_6$ are the long run parameters.

On the other hand, the short run model is represented in equation 5

$$\Delta INFL_t = \beta_0 + \sum_{i=1}^{n} \beta_1 \Delta INFL_{t-i} + \sum_{i=1}^{n} \beta_2 \Delta EXR_{t-i} + \sum_{i=1}^{n} \beta_3 \Delta M2/RGDP_{t-i} + \sum_{i=1}^{n} \beta_4 \Delta MPR_{t-i} + \sum_{i=1}^{n} \beta_5 \Delta REQ_{t-i} + \sum_{i=1}^{n} \beta_6 \Delta SLR_{t-i} + \sum_{i=1}^{n} \beta_7 \Delta TBR_{t-i} + v_t \quad (5)$$

In equation (5), Δ means the first-difference, $\beta_0, \beta_1, \ldots, \beta_7$ are the short run parameters. "The ρ is the rate of correction of the short run disequilibrium in the long run. The coefficient, ρ is expected to be less than one (1), negative and statistically significant. For critical decision making on the state of co-integration of the study's variables, a stationarity test is conducted using the Augmented Dickey-Fuller test to check the property of each of the variables."

Table 1: Definitions of the Variables

S/N	Type	Symbol	Description	Measurement
1.	Dependent	INFL	This has been described as a consistent rise in an economy's average price lev-	Percentage (%)
2.	Independent	EXR	The rate of exchange is the cost of one currency in respect to other currencies.	US dollars/Naira
2.	Independent	M2/RGDP	Supply of Money is the amount of money in circulation in an economy at any given time period. Nuutilainen (2016) referred to the position of Milton Friedman that if money supply percentage growth rate in relation to GDP percentage growth is kept at a constant k, there will be no inflation. The CBN in 2008 opted to watch that ratio as a means of its monetary targeting regime. Hence, the use of the ratio as a proxy for broad	Ratio

Source: Author's compilation.

7.	Independent	MPR	The purpose of the monetary authority's monetary policy rate is to control the changes in the economy's key monetary variables.	Percentage (%)
8.	Independent	REQ	Required reserve ratio is the amount of money a bank is required to hold in reserve by the amount of money it has on deposit.	Percentage (%)
9.	Independent	SLR	A commercial bank is required to retain a minimum percentage known as the statutory liquidity ratio, deposits must be made in the form of cash, gold, or other liquid	Percentage (%)
9.	Independent	TBR	Treasury bills are issued by the monetary authority as short-term investments and are referred to as being relatively risk-free investment. The bills are purchased at discount and are held until maturity date.	Rate

Source: Author's compilation.

Results and Discussion
Unit Root Results

All variables—aside from the monetary policy rate—are stationary after their first differences at the 5% level of significance, according to Table 2's summary of the "Augmented Dickey Fuller (ADF)" stationarity test. The rate of monetary policy is a level-stationary variable as a result. As a result, the study's "variables are level and first-difference stationary".

Table 2: Summaries of Augmented Dickey-Fuller Unit Root Tests

Variable	ADF Test Statistic	5% Critical Value	Order of Integration	Remarks
D(INFL)	-5.503	-2.88	I(1)	Difference stationary
D(EXR)	-8.761	-2.88	I(1)	Difference stationary
D(M2/RGDP)	-12.492	-2.88	I(1)	Difference stationary
MPR	-3.216	-2.88	I(0)	Stationary
D(REQ)	-10.084	-3.44	I(1)	Difference stationary
D(SLR)	-12.464	-2.88	I(1)	Difference stationary
D(TBR)	-17.399	-2.88	I(1)	Difference stationary

Note: "D" depicts difference operator of the variable.
Source: Results extract from EViews 11.0

4.2 ARDL Model Estimation

First, the fundamental optimum model was calculated to better understand the factors influencing Nigeria's rate of inflation , as shown in Table 3. The long run parameter estimations are produced from a fitted model.

Table 3: Selected Model: ARDL (1, 0, 0, 0, 0, 0, 0)

Dependent Variable: INFL				
Regressor	Coefficient	Standard Error	T-Ratio	Probability
INFL(-1)	0.905	0.026	34.184	< 0.01
EXR	0.003	0.001	2.787	0.01
M2/RGDP	0.003	0.001	1.950	0.05
MPR	0.007	0.014	0.493	0.62
REQ	-0.067	0.023	-2.965	< 0.01
SLR	-0.017	0.007	-2.382	0.02
TBR	0.007	0.019	0.378	0.70
C	1.026	0.448	2.289	0.02
R-Squared 0.9519				R-Bar-Squared 0.9495
F-Statistic 414.50 [< 0.01]				DW-Statistic 1.9601

Source: Results extract from EViews 11.0

The R-squared coefficient of determination is approximately 0.95, as indicated in Table 2. It shows that the explanatory variables in the chosen ARDL model account for around 95% of the fluctuations in inflation rate. The modified R-squared (0.95) also demonstrates that the explanatory variables in the model account for around 95% of the systematic variations in the inflation rate model. The "F-statistic shows that the total ARDL model is significant" at the 1% level (F(7,147)= 414.5, p0.01). The absence of autocorrelation among the model's residuals is demonstrated by the Durbin Watson value of 1.96.

ARDL Bound Test of Co-integration

The study used the bound test to determine whether there was a long-term association between the variables using the estimated model "shown in Table 2." The F-statistics value of 12.73 exceeds the lower and upper class limits of 2.27 and 3.28, respectively, at the 5% level of significance, as shown in Table 3. The test's results show that, at a 5% level of significance, "the null hypothesis—that there is no co-integration among the variables—cannot be accepted". As a result, over time, the factors tend to be related. The predicted long-run coefficients are shown in Table 5 since the co-integration result in Table 4 shows a link between the variables over the long term.

Table 4: ARDL Bounds Cointegration Test

Null Hypothesis: No long run relationships exist		
Test Statistic	Value	Number of Parameters
F-statistic	12.7342	6
Critical Value Bounds		
Significance	I(0) Bound	I(1) Bound
10%	1.99	2.94
5%	2.27	3.28
1%	2.80	3.99

Source: Results extract from EViews 11.0

Long Run Analysis

Table 5: ARDL Long Run Model

Dependent Variable: INFL				
Regressor	Coefficient	Standard Error	T-Ratio	Probability
EXR	0.028	0.007	4.061	< 0.01
M2/RGDP	0.022	0.013	1.722	0.09
MPR	0.075	0.152	0.495	0.62
REQ	-0.709	0.308	-2.299	0.02
SLR	-0.184	0.059	-3.125	< 0.01
TBR	0.077	0.199	0.388	0.70
C	10.813	3.870	2.794	0.01

Source: Results extract from EViews 11.0

The rate of exchange coefficient in the "long run is positive and statistically significant" at the 1% level according to the long-run outcome shown in Table 5 (t=4.06, p0.01). In other words, there is enough statistical support to conclude that changes in the exchange rate over time cause changes in the inflation rate. According to the coefficient, when the value of the naira drops by N1 in relation to the US dollar, Nigeria's inflation rate will increase by around 0.03% over time. The findings revelation is consistent with "the study's a priori expectation and supports the results of" studies by Fetai, Koku, Caushi, and Fetai (2016); Gopinath (2015); Yusuf, Salaudeen, and Ogbuji (2022); that the exchange rate significantly affects inflation rate.

Similar to this, Nigeria's inflation rate has a long-term "link with the ratio of the broad money supply to real gross domestic product (GDP)". At the 10% level, its coefficient is significant but positive (t=1.72, p=0.09). According to research by Maune, Matanda, and Mundonde (2020); Abeng, Itodo, Idoko, and Nwafor (2021); Onipede, Afiemo,Nduka, & Apinran, (2021).Ikechukwu, Chiamacha and O (2020); Eltejaei and Shoorekchali (2022); Gharehgozli and Sunhyung (2022) and Buthelezi (2023), a 1% increase in the ratio of broad money supply to real GDP will result in an approximate 2% increase in inflation rate in Nigeria over time. However, it was discovered that "the monetary policy rate (MPR) had a favorable but minor impact on the inflation rate" (t=0.50,p=0.62). This demonstrates that, contrary to Emerenini and Eke's (2014); Khan (2020) findings, the monetary policy rate has no impact on Nigeria's inflation rate over the long term; but was confirmed by Okotori and Eze (2020).The significant quantity of money that is not in the banking system may be to blame for this. The policy conclusion is that the monetary policy rate is not a long-term financial instrument or tool for reducing Nigeria's inflation rate.

As anticipated, the long-term negative link between the inflation rate and the cash reserve requirement ratio (REQ) exists. About -0.71 is the long-term expected coefficient of the cash reserve requirement ratio. At the 5 per cent level, it is statistically significant (t=-2.30, p=0.02). According to the results, a long-term 1 per cent rise in the cash reserve requirement ratio will result in a 0.71% decrease in inflation. The estimated negative nexus between the cash reserve requirement ratio and the rate of inflation is in accordance with Okotori (2017, 2019) and Okotori and Gbalam (2020) findings. Similarly, statutory liquidity ratio (SLR) has a long run inverse relationship with inflation rate. Its long term estimated coefficient is about -0.18. It is statistically significant at the 5 per cent level ($t = -3.12, p = 0.002$). This indicates that if the statutory liquidity ratio increases by 1 per cent, inflation rate will drop by about 0.18 per cent in the long run. This finding is in agreement with that of Okotori (2017); (2019) and Okotori and Gbalam (2020) who discovered that statutory liquidity ratio has a negatively significant influence on "the rate of inflation in the long term". Lastly, Treasury bill rate has an insignificant long run effect on the rate of inflation in Nigeria ($t = 0.39, p = 0.70$).

Conclusion

The study has showed that there is enough empirical evidence that exchange rate induces changes in the inflation rate in the long run. Similarly, the broad money supply growth to real gross domestic product (GDP) growth ratio has a long run relationship with inflation rate in Nigeria. However, monetary policy rate (MPR) was seen to have a positive insignificant effect on inflation rate. In addition, Treasury bill rate had an insignificant long run effect on inflation rate in Nigeria; cash reserve requirement ratio (REQ) has a long run inverse relationship with inflation rate. However, statutory liquidity ratio (SLR) has a long run inverse relationship with inflation rate.

Recommendations

The consequence is that over time, the Nigerian inflation rate was significantly influenced by the exchange rate, money supply, reserve requirement, and statutory liquidity ratio. As a result, the fact that Friedman's constant k principle (M2%/RGDP %), a stand-in for the money supply, had an impact on Nigeria's inflation rate, validated its efficacy. Consequently, the fact that money supply had traction on the inflation rate in Nigeria means the CBN has to watch money supply percentage growth *vis a vis* the percentage real GDP growth rate in order to mitigate the effect of volatile spikes in inflation.

Limitations of the Study

The study has a country specific analysis and thus cannot ne over generalized; as other country's might exhibit a different dynamics.

Future Study

Research should be carried out on the impact of Friedman's constant k principle on;

The volatility in the exchange rate and Friedman's constant k
The All Shares Index of the Nigeria Exchange Group

References

Abeng M. O., Itodo I. A. & Nwafor N. G. (2018). Money supply and inflation in a growing economy: The Nigerian experience. *West African Journal of Monetary and Economic Integration*, *18*(2), 28-46.
Achua, Nagado, H., & Okafor, I. I. (2020). Is inflation always and everywhere a monetary phenomenon? Evidence from Nigeria. *Economic and Financial Review, Central Bank of Nigeria*, *58* (1), 1-12.
Ahuja, H. L (2013) *Modern economics*. Delhi, India: S Chand and Company PVT Ltd.
Ebipre, P., & Amaegberi, M.A. (2020). Money supply and inflation In Nigeria. *International Journal of Innovative Social Sciences & Humanities Research* 8(3), 61-68.
Amassoma, A. D., Sunday, S., & Onyedikachi, E. (2018). The influence of money supply on inflation in Nigeria. *Journal of Economics and Management, 31*(1), 5-23.
Amassoma, A. D., Sunday, S., & Onyedikachi, E. (2018). The upshot between money supply and inflation in Nigeria. *Journal of Economic Cooperation and Development, 39*(1), 83-108.
Amassoma, D., Onyedikachi, E., & Sunday, K. (2018). The influence of money supply on inflation in Nigeria. *Journal of Economic and Management, 31*(1), 5-23.
Bekiros, S., Muzaffar, A. T., Uddin, G. S., & Vidal-García, J. (2017). Money supply and inflation dynamics in the Asia-Pacific economies: A time-frequency approach. *Studies in Nonlinear Dynamics and Econometrics*, *21*(3), 1-13.
Benamar, A., Cherif, N., & Benbouziane, M. (2011}. *Money and prices in the Maghreb countries: cointegration and causality analyses* (MPRA Paper 38604). University Library of Munich, Germany.
Bernanke, B. S. (2006, November 10). *Monetary Aggregates and Monetary Policy at the Federal Reserve: A Historical Perspective. Presented* at the Fourth ECB Central Banking Conference, Frankfurt, Germany. Retrieved from Monetary Aggregates and Monetary Policy at the Federal Reserve: A Historical Perspective - Federal Reserve Board
Blanchard, O. (2021, February 18). In defense of concerns over the $1.9 trillion relief plan. Real Time Economic Issues Watch, *Peterson Institute for International Economics*, Washington, DC. Retrieved from In defense of concerns over the $1.9 trillion relief plan | PIIE
Buthelezi, E. M. (2023). Impact of money supply in different states of inflation and economic growth in South Africa. *Economies, 11*(2), 64-84.
Central Bank of Nigeria.(2018). Financial stability report. Retrieved from https://www.cbn.gov.ng/out/2019/fprd/fsr%20december%202018
Darrat, A. F. (1986). Money, inflation, and causality in the North African Countries: An empirical investigation. *Journal of Macroeconomics , 8*(1), 87-103.
De Grauwe, P., & Polan, M. (2005). Is Inflation always and everywhere a monetary phenomenon? *The Scandinavian Journal of Economics*, *107*(2), 239-259.
Dinh, D. V. (2019). Money supply and inflation impact on economic growth. *Journal of Financial Economic Policy, 11*(3), 457-473. doi:10.1108/JFEP-10-2018-0152.
Eltejaei E. M., & Shoorekchali J. (2021). Investigating the Relationship between Money Growth and Inflation in Turkey: A nonlinear causality approach. Journal of Monetary Economics, *16*(3), 305-322. Retrieved from http://jme.mbri.ac.ir/article-1-550-en.html
Emerenini, F. M., & Eke, C. N. (2014). The Impact of monetary policy rate on inflation in Nigeria. *Journal of Economics and Sustainable Development, 5*(28), 146-153.
Eze, G. P., & Okotori, T. W. (2022). Exchange rate volatility and monetary policy shocks. IntechOpen. In M.J. Ibrahim (Ed.), *Macroeconomic Analysis for Economic Growth* (pp.203-226). Retrieved from Retrieved from https://www.intechopen.com/chapters/799
Fetai, B., Koku, P. S., Caushi, A., & Fetai, A.(2016). The Relationship between exchange rate and inflation: The case of western Balkans countries. *Journal of Business, Economics & Finance, 5*(4), 1-13.
Fetai, B., Koku, P. S., Caushi, A., & Fetai, A.(2016). The Relationship between exchange rate and inflation: The case of western Balkans countries. *Journal of Business, Economics & Finance, 5*(4), 1-13.
Freeman, S., & Kydland, F. E. (1998). Monetary aggregates and output (Working Papers 1998-2026)013), Federal Reserve Bank of St. Louis.
Friedman, M. (1956). The quantity theory of money – A restatement. In M. Friedman (Ed,), *Studies in the quantity theory of money*. Chicago: University of Chicago Press.
Friedman, M. (1963). *Inflation: Causes and consequences*. New York: Asian Publishing House
Friedman, M., & Schwartz, A. (1963). *A monetary history of the United States, 1867-1961*. The Princeton University Press.
Gharehgozli, Orkideh, and Sunhyung, Lee. 2022. Money Supply and Inflation after COVID-19. Economies 10: 101. https://doi.org/ 10.3390/economies10050101
Gopinath, G. (2015). The International price system. Retrieved from https://www.kansascityfed.org/documents/5753/2015-jackson-hole-gopinath-the-intl-price-system.pdf
Greenwood, J. & Hanke, S. (2021). On monetary growth and inflation in leading economies, 2021-2022: Relative price and the overall price level. *Studies in Applied Economics,* 198, *The Johns Hopkins Institute for Applied Economics, Global Health, and the Study of Business Enterprise*
Griswold, D. (2006). Zimbabwe ignores Milton Friedman's advice. Retrieved from https://www.cato.org/blog/zimbabwe-ignorec-milton-friedmans-advice
Hamilton, A. (2001). Exploding Inflation (Zeal Intelligence, 2001).
Ikechukwu, A. H., Chiamaka, A. G., & O., A. L. (2020). Money supply and inflation nexus in Nigeria, 1981-2018: Engle-Granger approach. *The International Journal of Business & Management*, *8*(3), 216-222. https://doi.org/10.24940/theijbm/2020/v8/i3/BM2003-046
Kavila, W., & RouxP.L. (2017). The role of monetary policy in Zimbabwe's hyperinflation episode. *African Review of Economics and Finance, 9*(2), 131-166.
Khan, S.U.(2020). Interest rate and inflation nexus, an application of granger causality test empirical investigation: A Case study of UK. *Saudi Journal of Business and Management Studies*, 5 (1): 32-39.
Kerlinger, F. N. (1978). Similarities and differences in social attitudes in four Western countries. *International Journal of Psychology, 13*(1), 25–37.
Korkmaz, S. (2017, November). The relationship between money supply, inflation, and economic growth in Mediterranean countries. Paper presented at Eğitim ve Sosyal Bilimler Sempozyumu. Bandırma. Retrieved from https://www.researchgate.net/publication/322636716_The_Relationship_between_Money_Supply_Inflation_and_Economic_Growth_in_Mediterranean_Countries
Landau, J. (2021, February 8). Inflation and the Biden stimulus. Retrieved from https://cepr.org/voxeu/columns/inflation-and-biden-stimulus
Lynch, D. J. (2022, February 6). Inflation has Fed critics pointing to spike in money supply; But central bank officials say economy has changed since high-inflation days of the1970s. Retrieved from https://www.washingtonpost.com/business/2022/02/06/federal-reserve-inflation-money-supply/
Maune, A. ., Matanda, E. ., & Mundonde, J. (2020). Is money supply the cause of inflation in Zimbabwe? An Empirical Examination: Array. *Acta Universitatis Danubius. Œconomica*, *16*(3), 1-11.
Miller, J. (2022). Friedman rule. Retrieved from FriedmanRule-byJohuaMiller-InTheAggregate (substack.com).
Nelson, E. (2002). Direct effects of base money on aggregate demand: Theory and evidence. *Journal of Monetary* Economics, 49(4), 687–708.
Nguyen, V.A.T., Hoang, T. T., & Le, D. A. (2022). A study on the relationship between money

supply and inflation in Vietnam from 2005 to 2021. Accounting 8 (2022) 395–402. Retrieved from https://www.growingscience.com/ac/Vol8/ac_2022_9.pdf

Obi, C.K., & Ossai, O.E. (2022).Is inflation a monetary phenomenon in Nigeria? Insight from Nigerian money supply and inflation data. Retrieved from https://www.researchgate.net/publication/361094054

Ofori, C. F., Danquah, B. A., & Zhang, X. (2017). The Impact of Money Supply on Inflation, A Case of Ghana. *Imperial Journal of Interdisciplinary Research, 3*(1), 2312–2318.

Okotori, T. W. (2017). Effect of monetary policy on inflation in Nigeria 2009-2014, Masters' Thesis, Niger Delta University, Wilberforce Island Bayelsa, Nigeria.

Okotori, T.W. (2019). The dynamics of monetary policy and inflation in Nigeria. *IOSR Journal of Economics and Finance, 2*(1), 37-49.

Okotori, T.W., Eze G.P. (2020). CBN monetary policy and inflation nexus in Nigeria: An empirical approach. *American Journal of Economics*, 1(2), 15-35.

Omankhanlen, A. E., Samuel-Hope, D. C., & Ehikioya, B. (2022). The Effect of Financial Development on Economic Growth in Nigeria. *Academy of Strategic Management Journal*, *21* (S4), 1-13

Omodero, C. O. (2019). Effect of money supply on economic growth: A comparative study of Nigeria and Ghana. *International Journal of Social Science Studies*, *7*(3), 16-25.

Onipede, S.F., Afiemo, O.O., Nduka, K.N. & Apinran, M. O. (2021). Money supply & growth nexus: Evidence from Nigeria. *The Economics and Letters*, 8(2), 117-129.

Onwumere, J. U. J. (2005). *Business and economic research method*. Lagos: Don-Vinton Limited

Orubu, C. O. (2009). Inflation in Nigeria: Concept, measurement and control. *Bullion*, *33*(1), 1-12.

Reserve Bank of Zimbabwe. (2009). *Monthly Reviews, Quarterly Statistical and Economic Reviews and Annual Reports, various issues.*

Salami, A., & Kelikume, I. (2013). Is inflation always and everywhere a monetary phenomenon? The case of Nigeria. *The International Journal of Business and Finance Research, 7*(2), 105-114.

Scott Freeman & Finn E. Kydland, (1998). Monetary aggregates and output. Working Papers 13, Federal Reserve Bank of St. Louis.

Simwaka, K., Ligoya, P., Kabango, P., & Chikondo, M. (2012). Money supply and inflation in Malawi: An econometric investigation, *Journal of Economics and international Finance*, *4*(2), 36-48.

Su, C., Fan, J., Chang, H., & Li, X.(2016). Is there causal relationship between money supply growth and inflation in China? Evidence from quantity theory of money. *Review of Development Economics, 20*(3), 702-719.

Summers, L. (2021). The Biden stimulus is admirably ambitious: But it brings some big risks, too. Retrieved from https://www.hks.harvard.edu/centers/mrcbg/programs/growthpolicy/biden-stimulus-admirably-ambitious-it-brings-some-big-risks-too

Sumner, S. (2022). Whither monetarism? *Economic Affairs, 42*(2), 275–287.

Thornton, J. (2011). Further evidence on money and inflation in the long run. *Applied Economics Letters, Taylor & Francis Journals, 18*(15), 1443-1447.

Tule, M. K., Obioma, E. C., Okpanachi, U. M., Odeniran, S. O., & Olaoye, O.J.(2012). Monetary growth and inflation dynamic in Nigeria. Central Bank of Nigeria. *Working Paper Series* 01 (02).

Xie, C., Tang, H., & Cui, Y. (2009, April 26). *Money Supply, Economic Growth and Inflation of China: 1998-2007*. Paper presented at the Second International Joint Conference on Computational Sciences and Optimization, CSO 2009, Sanya, Hainan, China. Retrieved fromhttps://www.researchgate.net/publication/221187080_Money_Supply_Economic_Growth_and_Inflation_of_China_1998-2007

Yusuf, I. A., Salaudeen, M. B. and Ogbuji, I. A. (2022). Exchange rate fluctuation and inflation nexus in Nigeria: The Case of recent recession, *Journal of Economic Impact*, 4(1), 81–87.

Track 2:

Management/Industrial Relation and HRM Track

Employee Resource Groups and Organizational Alignment towards Shifts in the Global Environment

Kpakol, Aborlo Gbaraka (PhD)
Department of Management, Faculty of Management Sciences
Rivers State University
aborlogbaraka@yahoo.com

Don-Baridam, Letam (PhD)
Department of Industrial Relations and Human Resource Management
Faculty of Management Sciences
Rivers State University
letam.don-baridam@ust.edu.ng

Abstract
Organizations are in many ways defined and determined by the quality of their human resource, and the extent to which internal components and relationships are harnessed in the interest of the organization. In view of emerging global realities and developments in technology, this paper was designed as a theoretical paper and examined the leveraging of employee resource groups, in the actualization of organizational alignment toward the shifts in the global economy. Drawing on the resource-based view theory (RBV), the review focused on harnessing employee support, leader effectiveness and creative solutions through the formalization, support and dedication of resources toward the activities of employee resource groups. It was concluded that employee resource groups provide a strong base for reinforcing the organization's capacity, equipping it with the required ideas, skills, support and commitment levels to drive its change-related initiatives and as such enhance its effective alignment with the changes in its global environment.
Keywords: Employee resource groups, organizational alignment, resource-based view theory, global economy

Introduction

Reports (PWC, 2023; Songhai Advisory, 2023) point to the phenomenal development in global economies, particularly in the areas of manufacturing (especially the gravitation of activities from Western countries to countries such as China and India and other emerging economies), technology and its application in businesses, in recent decades. The emergence and introduction of features such as cloud computing, remote work, Artificial Intelligence (AI) and others, within the context of organizations today, demonstrate a shift in business value and focus, predicated upon the increasing reliance of businesses on data and information management. To succeed, organizations must advance structures and work systems that are not only emphatic on adjusting to the dynamics of technology in its environment or context but also aligned to the pace of change as well. Such alignment toward the observed shifts in the economy must therefore be such that is hinged on effectively and innovatively matching organizational competencies and capacities with its evolving markets and economic systems (Erumebor, 2023; Marr, 2023; PWC, 2023).

Erumebor (2023) observed that the increasing rate of change or shifts in global economies also underpins the changes in the Nigerian economy and the extent of the success of its industries. Some of these changes include the emergence and growth of fintech firms such as Piggyvest, Flutterwave, Opay, Paystack and others, the rapid movement of manpower from the manufacturing and agricultural sectors to the service sector and the efforts by the Central Bank of Nigeria (CBN) to establish a cashless society. These factors have also contributed to the operational strain experienced in various sectors of the country, particularly the service sector. Erumebor (2023) reported that the GDP of the country had experienced a decline from 3.52% to 2.31% in the first quarter of the year 2023, could be linked to the demonetization and naira redesign process, which according to Erumebor (2023) led to a severe cash shortage, negatively impacting families and organizations. Such challenges only reflect a poor level of alignment towards the shifts and emerging realities of the global economy.

Research (Allui & Sahni, 2016; Guest, 2011; Amin, Ismail, Rasid & Selemani, 2014) is replete with

evidence on the imperatives of factors and practices such as training and development (Guest, 2011), technology development (Pontnuru & Sahoo, 2016), role design (Ravazzani, 2014), human resource infrastructure and others in driving organizational competencies and toward improved outcomes of organizational change and alignment with global precedents. These studies contend with the development and strengthening of internal capacities, a position which echoes the ideologies of the resource-based view theory, but which nonetheless is anchored at the individual level.

Guest (2017) argued that organizations are fundamentally their people and that in the discussion of capacity or capabilities, it is imperative that considerations are extended to the shared identities and relationships embodied in what has been conceptualized as employee resource groups (ERG) (Welbourne & Ziskin, 2012). According to Welbourne and Ziskin (2012), ERGs are the voluntary grouping of workers with common interests and shared experiences. Such networks as Briscoe and Safford (2011) observed, could be leveraged by the organization and channelled toward enhancing collaboration as well as generating innovative solutions to organizational challenges.

The preoccupation of previous research with individual-level human resource factors and programs as earlier observed, offers a limited approach toward understanding the development of internal capacities; especially such designed to address the change alignment needs of the organization. Welbourne and McLaughin (2013) identified ERGs as enabling frameworks which not only enhance employee support, engagement and identification with the organization but also create the context through which ideas, expertise and experience are pooled and where effectively harnessed, can be drawn upon in reinforcing organizational goals and objectives. This paper in examining the role of employee networks in the outcome of innovative organizational alignment toward global shifts in the economy, is thus justified on the basis that it draws attention to the group or dyadic level of analysis in approaching and addressing organizational change concerns such as that of alignment toward shifts or the emerging conditions of the global environment (Briscoe & Safford, 2011). In line with the stated purpose of the paper, the objectives of this paper are to:

Examine the concepts of employee resource groups and organizational alignment

Evaluate the challenges militating against organizational alignment toward shifts in the global environment

Examine the ways in which employee resource groups can be leveraged in achieving outcomes of organizational alignment

Literature Review

Baseline Theory: Resource-Based View Theory

In this paper, the tenets of the resource-based view (RBV) theory are adopted in advancing a position which highlights and emphasizes the benefits of ERGs in the achievement of organizational alignment with emerging global concerns and realities. Propounded by Birger Wernerfelf in 1984 (Leiblein, 2011), the resource-based view theory, identifies with the need for organizations to be more internally focused, investing and developing their internal features, capabilities and systems in ways that enrich the quality of their services and the uniqueness of their output (Knott, 2009). While the RBV narrative has for decades centred on competitiveness, through the development of the organization's human resource; the adoption of the theory as the foundation in this research, offers a more dynamic perspective – that focuses on harnessing the organization's human resource qualities or capacities through frameworks such as the ERGs and the extent to which ideas, skills, and capacities are innovatively channelled toward improving the operations and change goals of the organization (Evan, Pucik, & Barsoux, 2002).

Employee Resource Groups

Employee resource groups (ERG), otherwise referred to as employee networks or employee affinity groups, describe groupings of workers who identify with others on the basis of shared workplace experiences, identities and related demographic factors such as religion, gender, age or race (Welbourne & Ziskin, 2012; Briscoe & Safford, 2011). The concept emerged from the movement

of black workers in Xerox in the 1960s targeted at addressing race-based issues and concerns in the workplace (Podsiadlowski; Briscoe & Safford, 2011, 2010). ERGs are considered useful as they not only anchor solidarity and support, but they allow for inclusivity and members' responsibility for significant others (Benschop, Holgersson, Van den Brink & Wahl, 2015). Benschop et al (2015) opined that ERGs are a necessary feature of today's organizations. This is because they create conducive and supportive frameworks for individuals from diverse backgrounds. This corroborates Ravazzani's (2014) position that workplaces and systems in the 21st century are characterized by higher levels of diversity, as a result of the ease of labour mobility. According to Benschop et al (2015), work systems today are more flexible, and accommodating of diversity (gender, religion, ethnicity) than in previous eras.

Organizational Alignment

Alignment is crucial to the survival of the organization. It describes the recomposition of processes, functions and systems in line with ensuring outcomes of internal adeptness and external synchrony (Laurenroth, 2023; Kathuria, Joshi & Porth, 2007). Through its alignment with the pace of change or development in its environment or context, expectations are matched and the organization is able to offer real value through its behaviour and services (Lyon, Whitaker, Locke, Cook, King, Duong, Davis, Weist, Ehrhart & Aaron, 2018).

However, the process of alignment involves not only the funding or financial commitment toward acquiring or developing the necessary facets, but it also entails knowledgeability of what facets or features of the organization to invest in, how to innovatively develop the identified features in ways that allow for efficiency as well as advances unique value, and the extent to which organizational components and resources are integrated to ensure expected outcomes (Wood, 2019; Harbert, 2002). Weiser (2000) on the other hand, argued, that alignment is strategic and therefore is more concerned with the organization's development of capacities to match the opportunities and threats in the environment. Such involves market or industry changes on a global scale, new technology, emerging competitive services or products as well as the political landscape.

Challenges of Organizational Alignment toward Shifts in the Global Environment

Just like organisational change, the path to alignment is rough and bumpy, as Muhammad, Char, Yasoa and Hassan (2010) noted. It requires much more than learning; emphasizing a myriad of actions and counter-actions that are focused on ensuring a harmonic flow of functions and operations that are in consonance with the events that characterize the environment or context of the organization. Research (Olufemi, Afegbua & Etim, 2020; Mary, Enyinna & Ezinne, 2015) identified the challenges of the Nigerian public sector organizations as largely explained by an existing culture of change-aversion, rigidity, and stiffening conventionality. Ajulor (2019) argued that while culture is imperative for consistency and some level of operational stability, it should be permeable and supportive of organizational change when necessary. Omaliko and Okpala (2020) posited that organizational constraints, particularly such expressed in the public and private sector (particularly as it concerns non-profit firms) can be traced to organizational deficiencies in terms of employee competencies and organizational infrastructure.

In a different vein, research (Akintokunbo, 2018; Erumebor, 2023) has also shown that apart from existing skill and competency gaps in the organization, the disposition of staff toward change is also a primary concern. Mary et al, (2015) argued that workers' attitudes toward organisational change and alignment goals within most Nigerian public sector organizations could also pose a serious challenge to such success. This observation is also shared by Olufemi et al, (2020) who affirmed the propensity for deviance when workers feel their jobs or positions within the organization are threatened by planned change or new technologies. Similarly, Olufemi et al, (2020) noted that one of the root causes of such negative attitudes or biased views of change, especially at the lower cadre or level of the workforce in most Nigerian organizations, is the poor level of change communication and leadership inclusivity, which in many cases, excludes and alienates the workers. Creating division and increasing the tension between management and the workforce (Olufemi et al, 2020).

Leveraging Employee Resource Groups for Improved Organizational Alignment

Relationships are crucial to the organization. They demonstrate the extent to which its units, functions and levels are interwoven as well as the strength of the ties between groups or parties in the workplace. When such crystallize into groupings based on self-identifying and group-categorizing characteristics, it enriches the worker's feelings of placement, and further enhances their engagement (Nabyonga-Orem, Nabukalu, Andemichael, Khosi-Mthetwa, Saame, Myeni, Quinto & Dovlo, 2018; Mastracci & Arreola, 2016; Jiang, Lepak, Hu & Baer, 2012). ERGs provide reinforcement to workers' feelings of relevance, value and future with the organization. This is because ERGs facilitate positive self-evaluations based on comparisons with significant others who share their groups; providing assurance of acceptance, and purpose in the workplace. This way they contribute to workers' positive disposition toward the organization (Podsiadlowski, 2013).

The formalization of ERGs is considered the first step to leveraging their benefits and utilizing them as tools through which organizations can pursue and efficiently attain their objectives (Briscoe & Safford, 2011). Through formalization, ERGs are offered the required recognition, validation and support from the management or leadership of the organization. This enriches the exchange between organizations and these groups and also conditions group members' behaviour in ways that increase their level of productivity (Briscoe & Safford, 2011). Briscoe and Safford (2010) posited that the recognition of these groups reinforces their sense of responsibility to members and the organisation. One of the major advantages of the formalization and recognition of ERGs is that their opinions or positions on issues are a rich source for management decisions and policy formulation.

Guest (2017) opined that when decision-making anchors on inclusivity and variety, it contributes to the quality of leadership and enhances its effectiveness. The impact of ERGs on the organisation's leadership draws on the leader's openness and participative nature as well. Through the recognition and involvement of ERGs, leadership is availed a wider pool of ideas, capable of generating the solutions for advancing the alignment goals of the organization. Similarly, through increased levels of engagement and attachment to the organization, resulting from ERG membership, workers tend to be more inclined to put in more time and energy in their roles. This entails their support for management and their openness toward change. Welbourne and Ziskin (2012) viewed ERGs as windows to tapping into preferred work behaviours such as employee support, creativity, resourcefulness, innovation and thus impacting positively on the capacity of the organization and its disposition toward change. Figure 1 illustrates the related actions and outcomes of leveraging ERGs in the organization

Figure 1: ERGs leveraging actions and organizational alignment model
Source: Desk Research (2023).

Within both public and private sector organizations in Nigeria, the formalization and recognition of ERGs and their support through validation would lead to a reinforcement of a culture of openness and acceptance of diversity and change. Briscoe and Safford (2010) equated ERGs to platforms upon which members are able to express themselves with fewer concerns or fears of judgment. This is because they are in most cases interacting or collaborating with their peers, of the same gender, age, religious affiliations and backgrounds. These features are important as they enhance the flow of information, knowledge and cooperation expressed in the groups. The role of ERGs in advancing improved levels of is therefore such that is premised on the level of support and collaboration from workers such groupings channel toward the organization's leadership, particularly in the area of skill transfer, resourcefulness, creative ideas and pooled opinions (Briscoe & Safford, 2010).

Empirical research in this line sense also identifies with the significance of employee resource groups to organizational outcomes or change and alignment (Tang, Jiang, Chen, Zhou, Chen & Yu, 2015). Tang et al (2015) interviewed management staff and employees of 12 Chinese; assessing the extent to which related people or ERGs impacted on inclusion and team-building activities in the workplace. Evidence demonstrated the significance of ERGs in bridging functional differences and creating a more harmonic and cohesive work environment. Li, Lin, Tien and Chen (2015) affirmed the significance of ERGs in driving creativity and innovation across the organization. Their study generated data using the questionnaire from 57 teams in the Chinese public sector. In the same vein, Mor Barak et al. (2016), based on their meta-analysis, affirmed the imperatives of ERGs, noting that diversity management policies alone are insufficient in addressing the cultural gaps that exist in workplaces. Through ERGs, organizations are able to enrich both individual and organizational behavioural outcomes; enabling capacities that reinforce their ability

Conclusion

Recognizing and tapping into the advantages and benefits of ERGs can be considered essential, especially for the effective alignment of Nigerian organizations with the changing global dispensation. Through actions such as formalization, involvement, management support and the dedication of resources to the activities and operations of ERGs, organizations can leverage their benefits and as such achieve organizational alignment; shifting and transforming themselves in accordance with the behaviour of global markets, and industries.

ERGs, do not only provide a framework within the organization that enriches workers' sense of placement and reinforces their feelings of identification, it also serve as a platform which facilitates knowledge sharing, and the pooling of skills and ideas; all of which allow for a wider a much more informed disposition toward the capacity of the organization, change-adeptness of the organization, improved knowledgeability of the environment and as such enhanced environmental synchrony; key features that mirror or reflect the organization's capacity for aligning with the emerging realities and shifts in the global environment.

Thus, building on the position offered in this paper based the review, with regard to the imperatives of ERGs in advancing outcomes of organizational alignment, it is proposed that empirical assessments of the relationship between the variables be carried out in line with generating facts as to related manifestations of ERGs, particularly in the Nigerian service sector, and the establishment of the link or association between the variables.

References

Ahmed, A., Khuwaja, F. M., Brohi, N. A., & Othman, I. B. (2018). Organizational factors and organizational performance: A resource-based view and social exchange theory viewpoint. *International Journal of Academic Research in Business and Social Sciences, 8*(3), 579-599

Ajulor OV (2019). *New vistas in public policy analysis: A guide to policy making in developing country*. Lagos: Trend Portal Books

Akintokunbo, O. O. (2018). Market focus strategy and organizational performance of telecommunication companies in Port Harcourt. *International Journal of Innovative Research and Advanced Studies, 5*(3), 25- 26.

Allui, A., & Sahni, J. (2016). Strategic human resource management in higher education institutions: Empirical evidence from Saudi. *Procedia - Social and Behavioural Sciences, 235*, 361 –371.

Amin, M., Ismail, W.K.W., Rasid, S.Z.A., & Selemani, R.D.A. (2014). The impact of human resource management practices on performance Evidence from a Public University. *The TQM Journal, 26*(2), 125-142.

Benschop, Y., Holgersson, C., Van den Brink, M., & Wahl, A. (2015). *Future challenges for practices of diversity management in organization*s Handbook for diversity in organizations. Oxford: Oxford University Press.

Briscoe, F., & Safford, S. (2011). Employee affinity groups: Their evolution from social movements vehicle to employer strategies. *Perspectives on Work, 14*(1), 42-45.

Erumebor W. (2023). N*igeria in 2023: Bridging the productivity gap and building economic resilience*. Retrieved from: https://www.brookings.edu/articles/nigeria-in-2023-bridging-the-productivity-gap-and-building-economic-resilience/

Evan, P., Pucik, V., & Barsoux, J-L. (2002). *The global challenge: Frameworks for international human resource management*. New York: McGraw-Hill Irwin.

Guest, D. E. (2011). Human resource management and performance: Still searching for some answers. *Human Resource Management Journal, 21*, 3-13.

Guest, D. E. (2017). Human resource management and employee well-being: Towards a new analytic framework. *Human Resource Management Journal, 27, 22-38*.

Harbert, S.D., (2002). *Organizational alignment – A model and case study: An experiment within the Australian organization for quality*, Retrieved from: www.hotmanagement.com.

Jiang, K., Lepak, D., Hu, J., & Baer, J. (2012). How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms. *Academy of Management Journal, 55*, 1264-1294.

Kariithi, J. W., & Odongo, M. (2016). Impact of strategic human resource management practices on organizational performance (a case study of Safaricom). *Human Resource and Leadership Journal, 1*(1), 1-18.

Kathuria, R., Joshi, M. P. & Porth, S. J. (2007). Organizational alignment and performance: Past, present and future. *Management Decision, 45*, 503- 517.

Knott, P. (2009), Integrating resource-based theory in a practice-relevant form, *Journal of Strategy and Management, 12*(2), 163 174.

Laurenroth T. (2023). Organizational alignment. The complete guide to effectively aligning processes, teams and goals. Retrieved from: https://www.workpath.com/magazine/organizational-alignment

Leiblein, M.J. (2011), 'What do resource and capability-based theories propose? *Journal of Management, 37*(4), 909 932.

Li, C. R., Lin, C. J., Tien, Y. H., & Chen, C. M. (2015). A multilevel model of team cultural diversity and creativity: The role of climate for inclusion. *The Journal of Creative Behaviour, 51* (2), 163–179.

Lyon AR, Whitaker K, Locke J, Cook CR, King KM, Duong M, Davis C, Weist MD, Ehrhart MG, Aarons GA. (2018). The impact of inter-organizational alignment (IOA) on implementation outcomes: evaluating unique and shared organizational influences in education sector mental health. *Implement Sci* 13(1):24

Marr B. (2023). *The top manufacturing trends in 2023*. Retrieved from: https://www.forbes.com/sites/bernardmarr/2023/03/29/the-top-5-manufacturing-trends-in-2023/?sh=4bc8329a5875

Mary, O. E., Enyinna, U. K., & Ezinne, K. M. (2015). The Relationship between Talent Management and Employees Performance in Nigerian Public Sector a Study of Selected Firms in Delta State. *International Journal of Economics, Commerce and Management United King-*

dom, 3(5), 1581-92.
Mastracci, S., & Arreola, V. I. (2016). Gendered organizations: How human resource management practices produce and reproduce administrative man. *Administrative Theory & Praxis, 38*, 137- 149.
Mor Barak, M. E., Lizano, E. L., Kim, A., Duan, L., Rhee, M., Hsiao, H., & Brimhall, K. (2016). The promise of diversity management for climate of inclusion: A state-of the-art review and meta-analysis. *Human Service Organizations, 40*(4), 305–333
Muhammad, M. Z., Char, A. K., Yasoa, M. R., Hassan, Z. (2010), 'Small and Medium Enterprises (SMEs) Competing in the Global Business Environment: A Case of Malaysia. *International Business Research, 3*(1), 66-75.
Nabyonga-Orem J, Nabukalu BJ, Andemichael G, Khosi-Mthetwa R, Shaame A, Myeni S, Quinto E, Dovlo D. (2018). Moving towards universal health coverage: the need for a strengthened planning process. *Int J Health Plann Manag,* **33**(4):1093–1109
Olufemi, F., Afegbua, S. & Etim, E. (2020). Talent management and public sector performance: An assessment of Lagos state ministry of education, Nigeria. *The Journal of Social Science Research, 6*(9), 845-855
Omaliko, E., & Okpala, N. (2020). Effect of non-financial disclosures on performance of nonfinancial firms in Nigeria. *Journal of Accounting and Financial Management, 6*(1), 16-39
Parisi C. (2013). The impact of organisational alignment on the effectiveness of firms' sustainability strategic performance measurement systems: an empirical analysis. *J Manag Gov,* **17**(1):71–97
Podsiadlowski, A., et al (2013). Managing a culturally diverse workforce: diversity perspectives in organizations. *International Journal of Intercultural Relations, 37*, 159-175
Potnuru, R.K.G., & Sahoo, R.K. (2016). HRD interventions, employee competencies and organizational effectiveness: an empirical study. *European Journal of Training and Development, 40* (5), 345-365.
PWC (2023). Economic outlook. Retrieved from: https://www.pwc.com/mt/en/publications/other/economic-outlook-2023.html
Ravazzani, S. (2014). Understanding approaches to managing diversity in the workplace. *Equality, Diversity and Inclusion, 35*(2), 154-168
Songhai Advisory (2023). Power shifts in Nigeria as economy shows. Retrieved from: https://www.mondaq.com/nigeria/oil-gas--electricity/1324814/power-shifts-in-nigeria-as-economy-slows
Tang, N., Jiang, Y., Chen, C., Zhou, Z., Chen, C. C., & Yu, Z. (2015). Inclusion and inclusion management in the Chinese context: An exploratory study. *The International Journal of Human Resource Management, 26*(6), 856–874.
Tian, J., Wang, K., Chen, Y., & Johansson, B. (2010). From IT deployment capabilities to competitive advantage: An exploratory study in China. *Information Systems Frontiers, 12*(3), 239-255.
Weiser, J. (2000). Organizational alignment: Are we heading in the same direction. *The Kansas Banker, 90*, 11-15.
Welbourne, T. M., & McLaughlin, L. L. (2013). Making the business case for employee resource groups. *Employment Relations Today, 40*(2): 35-44.
Welbourne, T.M., & Ziskin, I. (2012). Employee resource groups as sources of innovation. Presented at the *2012 ERG Conference*.
Wood, S. J. (2019). Cascading strategy in a large health system: Bridging gaps in hospital alignment through implementation. *Health Service Manag Res*, *32*(3), 113–123.

Proceedings of the 4th Annual International Academic Conference

Despotic Leadership and Employee Quiet Quitting in a Changing Global Economy

Uhuru G. P. (PhD)
Department of Management
Faculty of Management Sciences
Rivers State University Nkpolu-Oroworukwo, Port Harcourt
prince.uhuru1@ust.edu.ng

Gabriel P. I (PhD)
Department of Corporate entrepreneurship
Faculty of Entrepreneurship Studies
Rivers State University Nkpolu-Oroworukwo, Port Harcourt
peaceogan03@gmail.com

Ogbonda E. H. (PhD)
Department of Management
Faculty of Management Sciences
Rivers State University Nkpolu-Oroworukwo, Port Harcourt
henryenyinda1@gmail.com

Abstract
This paper reviewed literature on the relationship between despotic leadership and employee quiet quitting. The objectives of the paper were structured in line with assessing the relationship between despotic leadership dimensions such as authoritative behaviour and self-centeredness and outcomes of employee quiet quitting such as employee lacklustre performance and employee low engagement, The paper identified despotic leadership as tyrannical and as necessitating distrust and tension within the workplace, such that it impact negatively on the employee's behaviour. The paper also adopted the cognitive dissonance theory as it theoretical framework, utilizing the theory as a base for its argument on the implications of the breach between workers expectations and their realities in the work. The paper discovered that these attitudes affect the performance level of the organization in the global market which affects the economy. From the extant literature reviewed on the variables, It was concluded that despotic leadership creates conditions that weaken the morale of employees, lowers their engagement and further leads to their lacklustre performance in the organization.. The paper therefore Recommends that organizations should engage leadership responsibilities to transformational and democratic person who will foster employee quite thriving instant of quitting to encourage rapidly changing economy globally, encourage participative leadership and the sharing of power in the workplace for healthier and more collaborative outcomes between leaders and their subordinates.
Keywords: Despotic leadership, employee quiet quitting, cognitive dissonance, organizational behaviour

Introduction

The nature of work, workplace and the perceptions individuals have about it is constantly changing (Saari & Judge, 2004). Granger (2022) argued that the perceptions of work and workplace in the 21st century differ substantially from those of the 19th century. According to Granger (2022), such differences are linked to the changing expectations of work and the meaning attached to them. Given the dynamic nature of today's workplace (diversity, equality, inclusion, labour participation and population demography), the development in information technology, and the effect of changing socio-cultural values on work and relationships, concerns have increased over related behavioural issues such as work and family conflict, detachment, alienation and more recently quiet quitting. All of which mirror towards the growing disconnect between the worker and today's workplace (Granger, 2022; Harter, 2022).

The concept of quiet quitting refers to a lacklustre approach toward work. According to Arnet (2022) it is a disposition towards work that lacks vitality or vigour and barely offers what is necessary or required for sustained functionality. While the challenge of quiet quitting is not new to the workplace, there has been a surge in its popularity in the current year, 2022, owing to its coinage and emphasis by the Tik Tok user Zaid Khan, a 24 years – old software engineer and musician in

New York whose quiet quitting video went viral on TikTok in July, 2022. He explained that "Quiet quitting is where an employee is not outright quitting your job, you're quitting the idea of going above and beyond." You're still performing your duties, but you're no longer subscribing to the "hustle culture" mentality that work has to be your life. The reality is it's not and your worth as a person is not defined by your labour (Monsees, 2022; Harter, 2022).

Hustle culture according to Callahan (2022) is the expectation to go above and beyond in your job, rather than simply doing the requirements of the job. It encourages employees to work more than normal working hours. Although quiet quitting recently became viral through social media, the origins of the concept seem to be rooted in an article published by Insider this past March, 2022. It was subsequently showcased by Brian Creely a former corporate recruiter and career coach, who encouraged employee to establish boundaries at work. Granger (2022) stated that quiet quitting stalls organizational growth. It has a negative impact on organizations as it deprives them of creativity and innovativeness. Most concerning is the fact that it is contagious as an attitude and can spread from one worker to others in the organization.

McGregor (2022) identified quiet quitting as a consequence of several factors, most notable however is the breach between the expectations and the reality of the worker. Rumschlag (2017) argued that workers experiences at the workplace, can be traumatic and demoralizing, especially when they are poorly treated or have to constantly deal with highly toxic and abusive work situations. This corroborates Wright, Cropanzano and Bonett (2007) view that while work features such as compensation, career growth opportunities, training and development have been revealed to impact significantly on the attitude and disposition of workers toward their responsibilities and the organization, it is however their relationship with their superiors and supervisors that holds a far greater significance with regard to their levels of commitment and attitude toward the organization.

Aronson (2001) stated that leadership is a crucial factor in workers development and wellbeing in the organization. Supportive leadership builds workers and enriches their work experiences; however, leadership which is despotic, tends to have a negative effect on the worker, causing distrust and further worsening the friction between leadership and subordinates in the workplace. Despotic leadership describes the form of leadership that is aggressive and overly authoritarian in its approach and style. Such creates an atmosphere of tension and uncertainty (Harvey, 2007), which according to Harvey (2007), can be emotionally strenuous for the worker. Malik and Satter (2019) noted that despotic leadership often express tyrannical tendencies and as such rely heavily on their use of power and threats in ensuring compliance at the workplace.

Quiet quitting can be considered relatively novel and hence there exists scarce literature addressing the behaviour in organizations. Related studies (Arnet, 2022; Pandey, 2022) indicate that the behaviour is one which holds negative implications for the organization; impacting negatively on organizational productivity and performance. Granger (2022) argued that the problem of quiet quitting is not tied only to the employee but rather to their experience of working conditions and their relationship with co-workers, and most especially with the leadership of the organization. Given the scantiness of research on the concept of quiet quitting, due to the recency of its coinage and emphasis as a concern in management, particularly in organizations in the 21st century but its effect has obviously been noticed in the global business environment thereby affecting the economy, In an attempt to cushion the effect raised by this concept of despotic leadership and quite quitting, its role in the rapidly shifting global economy, necessitated the scholarly attempt of this paper to contribute towards filling the gap by reviewing literatures on the conceptual relationship of the despotic and employee quite quitting: its impacts on rapidly changing global economy of the world business.

Statement of the Problem

The problem of this paper is tied to the implications of employee quiet quitting for organizations. Pandey (2022) argued that it is far worse than turnover as instead of leaving, workers drag on with the organization, extending their lukewarm attitude toward ways that delimits and stalls the optimality over a long period of time. Thus, organizations underperform and, in that way, lose opportunities and resources over an extended period of time due to the lacklustre performance of their

workers, their low engagement and poor morale in the workplace (Pandey, 2022).Quiet quitting is significantly harmful to the employer as argued by Klotz and Bolino (2022) quiet quitting is problematic for business organizations because a workforce that is willing to go beyond the call of duty is a critical competitive advantage.

Many leaders have argued that losing employees who want to leave is difficult, but having them not quit is even worse. The workforce of the world is increasingly being taken over by the Gen Z and the Millennial who are between the ages of 18-24 and 25 - 45. Klotz et al (2022) states that a survey of 30,000 workers by Microsoft showed 54% of Gen Z workers are considering quitting their job. The 2022 state of the Global Workplace report from Gallup shows only 21% of employees are engaged at work. Masterson (2022) argued that this emerging workforce are most worried about security, health, finances, working conditions, social connections and keeping up with change.Northouse (2014) stated that leadership plays an essential role in employee behavioural outcomes. It has the capacity to either motivate or demoralize the worker. Hence this paper addressed the role of despotic leadership in employee quiet quitting and their impact in rapidly changing the global business economy.

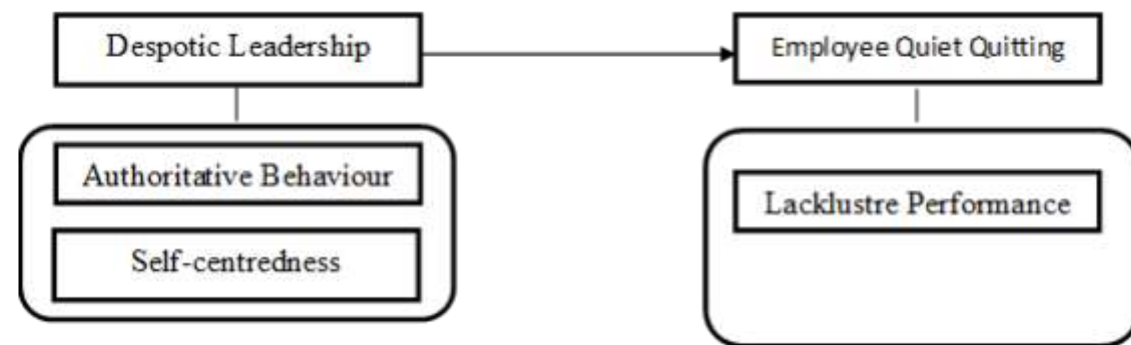


Fig. 1: Conceptual framework of relationship between despotic leadership and employee quiet quitting
Source: Researcher's Desk (2022); Despotic leadership Dimensions (De Hoogh & Den Hartog, 2008); Employee quiet quitting (Harter, 2022).

Purpose of the Study

The aim of this paper is to discuss the relationship between despotic leadership and employee quiet quitting. This is to be accomplished through the objectives of the study, which are to:

Examine the relationship between authoritative behaviour and employee quiet quitting.

Ascertain the relationship between self-centredness and employee quiet quitting.

Literature Review

Theoretical review

This paper adopts the cognitive dissonance theory in its discussion of the relationship between despotic leadership and quiet quitting. The cognitive dissonance theory was propounded by Leon Festinger in 1957 (Tueanrat & Alamanos, 2022); identifying the mental strain and trauma associated with one's experience of realities that contradict expectations or beliefs. Tueanrat and Alamanos (2022) argued that cognitive dissonance mirrors the conflict that occurs within the individual in coming to terms with their conditions or situations, especially when such do not match prior assumptions of the individual. According to Blanton et al (2001), outcomes such as frustration, alienation and decreased morale are often associated with cognitive dissonance, and these demonstrate

the individual's inability to accept or come to terms with their new realities.

The cognitive dissonance theory serves as the foundation for the discussion on the relationship between despotic leadership and quiet quitting as it identifies the breach between employee expectations of their workplace and their experience of despotic leadership as having a possible impact on their behaviour and disposition toward work (Tueanrat & Alamanos, 2022). The cognitive dissonance theory thus assumes that the inconsistencies in employee expectations of support from leadership, healthy relationships and collaboration with supervisors, could have a damaging effect on their workplace coping capacity and ability to function effectively within the workplace. As such, it is assumed that when the leadership of the organization is despotic, often authoritative, self-centred and exploitative, employees tend to experience low morale, are less engaged and often express lacklustre performance in their roles or responsibilities.

Concept of despotic leadership

Despotic leadership originated from the research on Taiwanese enterprises in China in the 1970s and is considered an important part of patriarchal leadership (Brown & Mitchell, 2010). As an independent leadership style, such leadership has attracted wide attention from management circles, and has been studied by scholars all over the world. In more traditional Chinese enterprises, leaders usually choose to act as the father in an extreme leadership style to establish a centralized hierarchy that is easy to manage, so despotic leadership is prevalent in Chinese organizations. Despotic leadership emphasizes absolute control over employees and is a ubiquitous leadership style in the modern society of collectivism and high efficiency. Despotic leadership is conceptualized as a leadership behavior in which leaders advocate supreme severity and absolute domination over subordinates and require them to obey unconditionally

Farh and Cheng (2023) describe despotic leadership as having four typical manifestations. First, the leaders have rigorous control over their subordinates, and such leaders want their subordinates to obey them. Second, despotic leaders are not accepting of any idea or suggestion from their subordinates. Such kinds of leaders take credit for successes and place the blame for failures on their subordinates. Third, despotic leaders usually seem very confident, and are sensitive to whether others respect them enough. Such kinds of leaders manipulate information and take advantage of others. Fourth, despotic leaders are rigorous, even harsh, with their subordinates. They are almost never satisfied with the work of their subordinates.

Despotic leadership refers to authoritative behaviour and personal dominance that serve a leader's self-interests while being exploitative of others and self-aggrandizing. Despotic leaders are hegemonic, vindictive, and controlling (Frost. 2004; Palletier, 2010). Employees lose respect, faith, and pride in their organization when they believe their leader manipulates them to achieve personal goals or when their interactions with the leader are unfair. As a result, they are less likely to be motivated to identify with the leader or the organization, resulting in lower workplace engagement (Aryee, 2008; Albashiti et al, 2021; Daft, 2014).

Despotic leadership, which elicits a stress response and is perceived as creating a hazardous environment, diverts an individual's focus from the job towards self-preservation, limiting employee engagement. Recent literature (Nauman et al, 2018; Malik & Sattar, 2019) in the service industry indicates that individuals who are subjected to abusive behaviours are more likely to be dissatisfied with their jobs. Moreover, individuals subjected to hostile treatment by their bosses frequently develop a high level of depression and a diminished sense of workplace belonging (Aryee, 2008; Einarsen et al, 2007). It's a leader's behavior that focus on gaining supremacy and dominance and are motivated by a leader's self-interests. Such leaders are arrogant, manipulative, bossy, authoritarian and unforgiven. (Naseer, Raja, Syed, Dona & Darr, 2016). This leadership style according to Schilling (2009) is reviewed as a negative leadership style.

Despotic leadership are exploitative and self-absorbing and likely to be insensitive towards the em-

ployee needs but a very little concern of their consequences of behavior on the organization or Employees (De Hoogh & Den Hartog, 2008). Despotic leadership is positively associated with follower's deviance and negatively associated with organizational identification (Erkutlu & Chafra, 2018). Deviance of workplace is defined as "voluntary behavior that violates organizational norms and threatens the wellbeing of organization". Despotic leadership which focuses on leader gains rather than employee wellbeing which as a result can generate significant stress in the employees, and organization should do whatever it takes to discourage its presence (De Clercq et al., 2018).

Authoritative behavior: This refers to the leader controlling and commanding approach toward the management and coordination of the organization's workforce (De Hoogh & Den Hartog, 2008; Lipman-Blumen, 2005). Authoritative behavior draws on the leader's expression of dominance over others and their use of coercion in ensuring compliance in the organization. Authoritative behavior is characterized by the overbearing attitude of the leader and their oppressive nature toward their subordinates in the organization (De Hoogh & Den Hartog, 2008).

Self-centeredness: This refers to the leader's absorption with themselves and their own interests in the organization (Aronson, 2001). Such is revealed in the leader's lack of empathy, concern or consideration of the employee; thus, their engagement in actions that promote their own aggrandizement at the detriment of the employee's wellbeing in most cases. Nauman et al (2020) stated that self-centeredness is shown in leadership with high centralization of decision-making power, the use of threats rather than negotiation with stakeholders and the dependence on force or threats in the organizing and directing of the organization's workforce.

Employee Quiet Quitting

The concept of employee quiet quitting refers to the lack of vitality, and disinterest in their roles, hence, they only offer the barest contributions or effort in their functions or responsibilities (Granger, 2022; Harter, 2022). McGregor (2022) argued that quiet quitting is a growing challenge for organizations in the 21st century because it demonstrates the growing gap in workers changing expectations and the realities of the business world today. Granger (2022) posited that millennial are more interested in autonomy and some control over their lives, as compared to the preceding generational group (Gen x) which were more focused on building families through the support organizational roles offered them. This aligns with Saari and Juge (2004) observation that there is a growing mismatch between today's worker and the workplace, especially given the changing societal values and their impact on workers values and perceptions of self, others and their work.

Lacklustre performance: This concept describes the workers minimal effort and lack of creative contributions toward their responsibilities and roles. As a measure of quiet quitting, lacklustre performance suggests a lack of interest and concern by the worker, but rather their fulfilment of responsibilities so as not to get fired but just to meet the required output required of them. Granger (2022) stated that such forms of disposition toward work, are in themselves a protest against the way they are treated in the organization. Harter (2022) argued that the workers engagement in lacklustre performance is also an indicator of their desire to continue with the organization despite their experiences.

Low engagement: This refers to the workers poor level of vigour and absorption with their work. Engagement according to Wright et al (2007) is physical, psychological and emotional and details the extent to which workers are active and at the same time emotionally attached to their roles and responsibilities. The lack of engagement signifies the workers detachment and poor concern for the outcome of their work. In such a case, the worker may be physically present but emotionally distant and far from being interested in their roles (Arnet, 2022; Harter, 2022).

Shifting global economy

The global shift is the movement of manufacturing industry to countries that have been recently industrializing. It has involved the shift of activity from western regions (like the US or Europe) to Asia. The growth in cross-border economic activities takes five principal forms: (1) international trade; (2) foreign direct investment; (3) capital market flows; (4) migration (movement of labor); and (5) diffusion of technology (Stiglitz, 2003) The global economy is constantly evolving due to various factors, including technological advancements, geopolitical events, and changes in consumer behavior.

Rapid shifts can have significant impacts on industries, job markets, and trade relationships. It's essential for businesses and governments to adapt to these changes to stay competitive and ensure economic stability. A rapidly shifting global economy refers to a situation where the economic conditions, trends, and dynamics in the world are changing quickly and significantly. They include: Economic Growth and Decline: Rapid changes in economic growth rates, with some countries or regions experiencing rapid expansion while others may be facing economic downturns.

Technological Advancements: Swift advancements in technology can disrupt industries, create new opportunities, and render existing business models obsolete.
Global Trade: Shifts in global trade patterns, such as changes in tariffs, trade agreements, or the emergence of new economic powers, can alter the economic landscape.
Consumer Behavior: Changes in consumer preferences, such as the rise of e-commerce or the demand for sustainable products, can have a profound impact on businesses.
Geopolitical Events: Events like political instability, conflicts, or major policy changes can affect international relations and, in turn, the global economy.
Financial Markets: Rapid fluctuations in stock markets, currency exchange rates, or interest rates can influence investment decisions and economic stability,
Environmental Factors: Environmental concerns, like climate change and resource scarcity, can drive shifts in economic priorities and regulations.

Impact of global changing economy on despotic leadership and employee quite quitting

In a study conducted by Tepper (2000) on the impact of despotic leadership style on employee turnover found that despotic leadership act in dictatorial and harsh manner to their followers necessitates employee's low satisfaction in the work field and will negatively impact followers overall performance in the organization, therefore Tepper (2000) identified the following as the impact despotic leadership and employee quiet quitting on global shifting economy

Reduced Productivity: Despotic leadership can lead to decreased employee morale and engagement. When employees are disengaged or fearful, they are less productive, which can have a cascading effect on a company's performance.
Talent Drain: High employee turnover due to despotic leadership results in the loss of experienced and skilled workers. In the global economy, the competition for top talent is fierce, and the loss of valuable human capital can hurt a company's competitiveness.
Innovation Stagnation: Innovation often thrives in environments with engaged and motivated employees. Despotic leadership can stifle creativity and innovation, hindering a company's ability to adapt to changing market conditions.
Reputation Damage: Companies with a reputation for despotic leadership are less attractive to potential employees, customers, and investors. This can impact the company's brand and its ability to expand in the global market.
Economic Inequality: Workplace mistreatment and inequity can contribute to broader economic inequality as employees endure unfair treatment and struggle to access opportunities for advancement.
Global Workforce Challenges: In a globalized economy, talent mobility is essential. Despotic leadership can discourage international talent from seeking opportunities in certain regions or organizations, limiting the flow of skills and knowledge across borders.

Regulatory and Legal Consequences: Companies with despotic leadership practices may face legal and regulatory challenges, leading to fines and penalties that can impact financial stability.

Ways of thriving and flourishing a rapidly changing global economy

Addressing despotic leadership and reducing employee turnover can have a positive impact on both individual organizations and the global economy as a whole. It can also foster a more inclusive, innovative, and competitive business environment through encouraging employee transformational leadership system and employee quite thriving in the organization. In work, thriving indicates that an individual is experiencing a high level of engagement, satisfaction, and fulfillment. Thriving is not just about being productive or achieving a high level of performance; it is also about finding a sense of fulfillment and enjoyment in your work. Employees who are thriving and committed frequently experience a sense of vitality, positive energy, and personal growth at work (Spreitzer, et al., 2005).

Thriving at work is characterized by an integrated sense of vitality and learning that reflects a high degree of personal investment and engagement (Kleine, Rudolph, & Zacher, 2019). It is this engagement that enriches the quality of work life for employees while generating increased employee efforts, 6 greater personal dedication, and increased levels of concentration and focus (Bakker & Demerouti, 2008). In the real world of work, thriving is subjectively defined and must be viewed by each individual in the long term, based upon one's personal definitions about life, one's values, and identity (Caldwell & Anderson, 2023). How individuals respond to their circumstances – including the context of their jobs -- is a function of one's perceptions and thoughts about those circumstances and is ultimately an intentional choice (Burke & Stets, 2009; Fishbein & Ajzek, 2015). Thus, thriving is about choosing how one will respond to their circumstances, rather than the circumstances themselves (Castillo, 2008; Eger, 2018).

The significance of thriving and flourishing in the modern organization is characterized by creating organizational cultures and relationships that thoughtfully integrate individual and organizational priorities (Trebesch, 2015). Kim and Beehr (2020) noted that great organizations challenge their employees to be excellent while 1) emphasizing the meaningfulness of work performed and 2) reinforcing in employees a sense of their self-worth and their value to the organization. Similarly, Imran and colleagues (2020) reported that organizational support systems and aligned employee relations policies generated both organizational and employee flourishing as well as increased levels of employee engagement.

Despotic Leadership and Quiet Quitting

Followers of despotic leadership have more negative attitude to their organization as a whole (Burris et al., 2008). Due to stress on workers from despotic leadership it makes the huge difference in aspect of job, institution and the economy (Hanges & Dickson, 2004). We found only two studies which examined the relationship between destructive or despotic leadership to the organizational performance (Schyns & Schilling, 2013). De Hoogh and Den Hartog (2008) found no relationship between despotic leadership and organizational performance. While Burris et al. (2008) show one significant relationship between destructive leadership and organizational performance which is cost overrun. The previous study suggest that despotic leadership has a negatively impact employees home life and then this effect intensify when the employee is anxious (Nauman et al., 2018).

Tepper (2000) found that despotic leadership is one of the major reasons in the low satisfaction of employee, because despotic leadership reacts to their employee in harsh and authoritarian style. Due to this despotic behavior of leader employee morale, inspiration and independency will be low to the organization (Naseer et al., 2016), as oppose to honest leader which encourage their employees and develop trust between them (De Hoogh & Den Hartog, 2008).

despotic leadership is linked with circumstantial not with behavioral circumstances, and the employee is not hierarchal build for the situational work place in the despotic leadership style environment for the smoothness of the work to deliver result for the project (Goffee & Jones, 2007). De Hoogh and Den Hartog (2008) describe the despotic leadership as illegal leadership style. When such leaders treat their employees with authority, lack of honor, arrogance and lack of empathy then imbalance is created in the employees due to whom psychological strain is experience by the employee which will affect work attitudes, promote deviance and reduce overall employee performance in the work field (Carnevale, Huang, Crede, Harms, & Uhl-Bien, 2017).

Conclusion/Suggestions

This paper reviewed literature on the relationship between despotic leadership and employee quiet quitting: its impact on rapidly changing business economy. The discussion centred on the extent to which despotic leadership, expressed through authoritative behaviour and self-centredness; all of which are identified as impacting negatively on the disposition of the worker toward their roles and the organization as well. From the discussion, it was noted that despotic leadership intensifies workers fears, stress levels and anxiety as it negatively influences their sense of job security and future with the organization which affects their level of commitment and engagement to the job roles and responsibilities This attitudes displayed by employees affects the company reputation in service delivery, company reputation, image and identity thereby affecting their performance in the global business environment. In this sense, it is therefore the conclusion of this paper that despotic leadership creates conditions that weaken the morale of employees, lowers their engagement and further leads to their lacklustre performance in the organization which affects their global changing environment. Following the outcome of the review, the following suggestion are put forward:

Leadership in organizations should be more participative and democratic in their relationship and coordination of the organization. This can be achieved through improved availability of mediums or platforms for employee involvement and representation in decision-making actions in the organization.

Organizations should develop work systems that enable power sharing and the consideration of various group interests in the workplace. Such should focus on enabling a balancing of value for roles and responsibilities of the leader and also those of the worker, ensuring that power within the organization is not abused

Organizations ought to focus on developing a system of work that values and emphasizes on ethics, morality and principles in the workplace – necessary for developing and ensuring healthier and more positive exchanges between leaders and their subordinates. Such should be supported by relevant policies that are designed to protect members of the organization from abuse and exploitation in the workplace.

References

Albashiti, B., Hamid, Z. and Aboramadan, M. (2021) 'Fire in the belly: the impact of despotic leadership on employees work-related outcomes in the hospitality setting', *International Journal of Contemporary Hospitality Management, 33*(10), 3564–3584

Arnet,E. (2022). The Ethics of Quiet Quitting. Avaliable at: https://www.prindleinstitute.org/2022/09/the-ethics-of-quiet-quitting/

Aronson, E. (2001) 'Integrating Leadership Styles and Ethical Perspectives', Canadian Journal of Administrative Sciences / Revue Canadienne des Sciences de l' *Administration, 18(*4), 244–256

Aryee, S. (2008) 'Abusive Supervision and Contextual Performance: The Mediating Role of Emotional Exhaustion and the Moderating Role of Work Unit Structure', *Management and Organization Review, 4(3), 393–411*

Blanton, H., Pelham, B.W., DeHart, T. & Carvallo, M. (2001). Overconfidence as Dissonance Reduction. *Journal of Experimental Social Psychology, 375,(3) 373-385.*

Burris, E. R., Detert, J. R., & Chiaburu, D. S. (2008). Quitting before leaving: the mediating effects

of psychological attachment and detachment on voice. *Journal of Applied Psychology, 93 (4), 912–923*.

Callahan, C. (2022).WTF is quiet quitting (and why is Gen Z doing it)? Retrieved from http:// Www.worklife.news./culture/quiet-quitting/

Carnevale, J. B., Huang, L., Crede, M., Harms, P., & Uhl-Bien, M. (2017). Leading to stimulate employees' ideas: A quantitative review of leader–member exchange, employee voice, creativity, and innovative behavior. *Applied Psychology, 66 (4), 517–552*.

Constantz,J. (2022). Everyone Is Talking About 'Quiet Quitting,' But Is It a Good Idea? Avaliable at: https://www.bnnbloomberg.ca/everyone-is-talking-about-quiet-quittingbut-is-it-a-good-idea-1.1807939

Daft, R.L. (2014) The Leadership Experience. Cengage Learning.

De Clercq, D., Haq, I. U., Raja, U., Azeem, M. U., & Mahmud, N. (2018). When is an islamic work ethic more likely to spur helping behavior? the roles of despotic leadership and gender. *Personnel Review, 47 (3), 630–650*.

De Hoogh, A. H., & Den Hartog, D. N. (2008). Ethical and despotic leadership, relationships with leader's social responsibility, top management team effectiveness and subordinates' optimism: A multi-method study. *The Leadership Quarterly, 19 (3), 297–311*.

De Hoogh, A.H.B. and Den Hartog, D.N. (2008) 'Ethical and despotic leadership, relationships with leader's social responsibility, top management team effectiveness and subordinates' optimism: A multi-method study', *The Leadership Quarterly, 19(3), 297–311*.

Einarsen, S., Aasland, M.S. and Skogstad, A. (2007) 'Destructive leadership behaviour: A definition and conceptual model', *The Leadership Quarterly, 18(3), 207–216*.

Erkutlu, H. and Chafra, J. (2018) 'Despotic leadership and organizational deviance: The mediating role of organizational identification and the moderating role of value congruence', *Journal of Strategy and Management, 11(2), 150–165*.

Frost, P. (2004). New challenges for leaders and their organization. *Organization Dynamics, 33 (2), 111–127*.

Goffee, R., & Jones, G. (2007). Leading clever people. *Harvard business review, 85 (3), 72–92*.

Granger, B. (2022). Quiet quitting: the latest workplace trend to combat burnout. Avaliable at: https://www.qualtrics.com/blog/quiet-quitting/

Hanges, P. J., & Dickson, M. W. (2004). The development and validation of the globe culture and leadership scales. Culture, leadership, and organizations: *The GLOBE study of management, 62 (6), 122–151*.

Harter, J. (2022). Is Quiet Quitting Real? Avaliable at: https://www.gallup.com/workplace/398306/quiet-quitting-real.aspx

Harvey, P. (2007) 'Coping with abusive supervision: The neutralizing effects of ingratiation and positive affect on negative employee outcomes', *The Leadership Quarterly, 18(3), 264–280.*

Klotz, A.C. & Bolino, M.C. (2022). When Quiet Quitting is worse than the Real Thing. Retrieved from https://hbr. Org/2022/o9/when-quiet-quitting-is-worse-than-the-real- thing.

Lipman-Blumen, J. (2005) 'Toxic leadership: When grand illusions masquerade as noble visions', *Leader to Leader, 2005(36),29–36*.

Malik, M.S.& Sattar, S. (2019) 'Effects of Despotic Leadership and Sexual Harassment on Emotional Exhaustion of Employees in Health Sector of Pakistan: Moderating Role of Organizational Cynicism', *Review of Economics and Development Studies, 5(2), 269–280*.

Masterson,V.(2022). What is quiet quitting? Retrieved from https://www.weforum.org/agenda/2022/09/tiktok-quiet-quitting-explained/

McGregor, G. (2022). Before "quiet quitting" in the U.S., there was "lying flat" in China. How the anti-work movement swept the world's two largest economies Avaliable at: https://search.ebscohost.com/login.aspx?direct=true&db=bsu&AN=158881425&lang= tr)

Monsees, S.J. (2022). 3 Secrets Employers can take to combat "Quiet Quitting". Retrieved from https://www.fisherphillips.com/print/v2/content/30172/shhhh%3 A-3-Secrets- employers-can-take-to.combat%22quiet-quitting%22.pdf

Naseer, S., Raja, U., Syed, F., Donia, M. B., & Darr, W. (2016). Perils of being close to a bad leader in a bad environment: Exploring the combined effects of despotic leadership, leader member exchange, and perceived organizational politics on behaviors. *The Leadership Quarterly, 27 (1), 14–33*.

Nauman, S., Fatima, T., & Haq, I. U. (2018). Does despotic leadership harm employee family life: exploring the effects of emotional exhaustion and anxiety. F*rontiers in psychology, 9(5) , 601–633*.

Nauman, S., Zheng, C. and Basit, A.A. (2020) 'How despotic leadership jeopardizes employees' performance: the roles of quality of work life and work withdrawal', *Journal of Leadership & Organization Development: 10(9) ,301–333*

Northouse, P.G. (2014) Introduction to leadership: Concepts and practice. SAGE Publications, Incorporated.

Pandey, E. (2022). The staying power of quiet quitting. Avaliable at: https://www.axios.com/2022/09/21/quiet-quitting-gen-z-work-jobs-minimum.

Pelletier, K.L. (2010) 'Leader toxicity: An empirical investigation of toxic behavior and rhetoric', *Leadership, 6(4), 373–389*.

Robinson, A. (2022). Quiet Quitting: How to prevent & Combat it at work. Retrieved from https://team building.com/blog/quiet-quitting.

Rumschlag, K.E. (2017) 'Teacher burnout: A quantitative analysis of emotional exhaustion, personal accomplishment, and depersonalization', *International management review, 13(1), 22–36.*

Saari, L.M. and Judge, T.A. (2004) 'Employee attitudes and job satisfaction', *Human Resource Management, 43(4)395–407.*

Schyns, B., & Schilling, J. (2013). How bad are the effects of bad leaders? a meta-analysis of destructive leadership and its outcomes. *The Leadership Quarterly, 24 (1), 138–158*.

Tepper, B. J. (2000). Consequences of abusive supervision. *Academy of management journal, 43 (2), 178–190.*

Tueanrat, Y. & Alamanos, E. (2022) Cognitive Dissonance Theory: A review. In S. Papagiannidis (Ed), TheoryHub Book. http://open.ncl.ac.uk

Wright, T.A., Cropanzano, R. and Bonett, D.G. (2007) 'The moderating role of employee positive wellbeing on the relation between job satisfaction and job performance.', *Journal of occupational health psychology, 12(2),79.-93.*

Knowledge Application and Knowledge Sharing on Performance of Small and Medium Enterprises in South-South Nigeria

Okwurume, Clarance Nkasirim
Department of Management
Faculty of Management Sciences
Rivers State University Nkpolu-Oroworukwo, Port Harcourt
okwurume.clarance@ust.edu.ng

Kpakol, Aborlo Gbaraka
Department of Management
Faculty of Management Sciences
Rivers State University Nkpolu-Oroworukwo, Port Harcourt
aborlogbaraka@yahoo.com

Abstract
The study examined the effect of knowledge application and knowledge sharing on performance of small and medium enterprises in South-South Nigeria. The study adopted a survey research design and stratified purposive and random sampling methodology. The study comprised of total target population of 440 managers from statistically selected small and medium enterprises in the study area. Based on this, 440 managers/owners was selected as the sample size. The Likert 5-point scale structured questionnaire was used in the collection of both qualitative and quantitative data. After data cleaning, 406 copies of questionnaire were found fit for use in the analysis, multiple regression analysis was used to analyse the data. Based on the analyses, the result revealed the existence of statistical positive and significant effect on performance. The study concluded that performance via Return on Investment, profitability of small and medium enterprises operating in South-South Nigeria is enhanced, dependent on the adoption of Return on Investment profitability and sales as components of performance of small and medium enterprises as these afforded them sound supportive grounds upon which the overall performance of the study organizations was achieved. Based on this, it is recommended amongst others that small and medium enterprises should ensure a synergy among the people, process and technology elements responsible for the deployment of knowledge in their firms. SMEs should endeavour to establish regular forums and educational programmes in which staff are trained to be sensitive to and appreciate the values of knowledge sharing application as well as in maintaining desirable organizational behaviour.
Keywords: Knowledge Application, Knowledge Sharing, SMEs, Performance

Introduction

Knowledge is a theoretical and practical understanding of a subject. It is also a familiarity, awareness, perception, discovery, learning or understanding of someone or something such as facts, information, descriptions or skills, which is acquired through experience or education. It is a cognitive and invisible product (Kumar, 2017). Knowledge sharing is the easy passing of information for the greater good of an organization or the process of donating and communicating one's personal intellectual capital to others, and invariably involving them to share their own. It is a concept implemented in organizations, institutions and even homes to guard against knowledge loss that arises from issues like employee layoffs, staff, turnover, death, resignations, retirement, and reluctance to engage in knowledge sharing.

Today, we are in the era of knowledge and information explosion and the golden age of Information and Communication Technology. As technology has become more readily available so has the number of distractions like social media, catch up TV, streaming sites, the internet and all kinds of data. Every profession tries to innovate and develop something new to ensure the visibility of their programmes and educators so as to be at par with other professions. The introduction of the innovation ideas to produce new educators gulps a lot of time and money.

Globally, the business environment has remained increasingly dynamic and has created an array of challenges for businesses. Increasing level of changes in consumer taste and preferences along with the collapse of national borders which has skyrocketed competition, have forced companies to

begin to think outside the box regarding ways of remaining competitive and profitable. Further, organizations have a combination of resources at their disposal which they deploy to boost performance.

However, it has become more obvious that relying solely on conventional resources of finance and raw materials may be inadequate to sustain competition, given the increasing change in market trends. Organizations try to evaluate how effectively, they accomplish their objectives; being that, how effectively an organization works toward achieving its goal is a measure of its performance (Alaneme, 2017).

Although businesses have a variety of resources, knowledge is considered highly significant in enhancing organizational performance. Even market leaders must continuously produce new knowledge in the contemporary organizational context due to competitors' quick imitation and rapidly changing environmental requirements (Lin & Wu, 2014). Because of this, businesses have gradually begun to rely on knowledge management (KM) as a necessary prerequisite to enhanced overall performance and success in today's hypercompetitive marketspaces (Wang & Noe, 2010). Organizations have been motivated to switch from conventional management approaches to KM as a result of the expanding role of knowledge (Tubigi & Alshawi, 2015). Effective human capital management has become increasingly important with the advent of knowledge-based economies to guarantee that employees continue to produce proper value for the economy (Omotayo, 2015).

Currently, firms compete on information as opposed to financial strength and capital, giving them a new competitive advantage. The quantity and quality of information that is stocked, harnessed, and used in the production process across all economic sectors determines GDP growth rate (Omotayo, 2015). To increase organizational effectiveness in these knowledge-based economies, KM strategies ought to be implemented. Knowledge is key to attaining and maintaining competitive advantage (Lee & Lan, 2011; Liu & Deng, 2015). However, if knowledge is not adequately maintained inside an organization, it can quickly become outdated and useless (Karimi & Javamnard, 2014). Organizations therefore ought to improve their processes or procedures for managing knowledge assets (Ouyang, 2014).

KM is the ability to gather information from both internal and external sources, transform it into a fresh approach or concept, and then use and safeguard it (Gold et al., 2001). It calls for transforming individualized knowledge into organizational knowledge that may be extensively disseminated throughout the company. KM thus focuses on distributing appropriate knowledge to appropriate individuals at the appropriate time.

The KM dimensions of knowledge application and sharing are embraced for this study even if there is no consensus on them currently. The choice of these dimensions of KM is informed by: First, majority of the studies on KM (Omerzel, 2010; Gholami et al., 2012; Kasimu et al., 2012; Mohamad et al., 2013; Alvarenga et al., 2014; Omotayo, 2015) used these dimensions.

Second, these dimensions aligned more with the principles of knowledge-based theory upon which this study is founded and thirdly, these dimensions are consistent with the model created by Kasimu et al. (2012). Knowledge application is the process of applying knowledge. Organizations can continuously turn their expertise into embodied products by using knowledge (Zaied et al., 2015). Knowledge sharing is the act of transferring information from one person, group, or organization to another (Kimaiyo et al., 2015).

Despite the known importance of small and medium-scale enterprises (SME) to the improvement of national economies, as well as the supports received by these firms such as provision of credit schemes, tax holidays, and creation of regulatory agency to promote and stimulate their activities, the sector has continued to witness dwindling performance. This is seen in the drop on their contri-

bution to Nigeria's economy from 50% contribution to GDP in 2021 to 43.3% in the last quarter of 2022. In addition, a good number of SMEs have remained stagnant in terms of growth, despite the availability of accessible credit which could be used for expansion.

With the increasing and rapid change in the external environment in which these SMEs operate, as well as unfavorable macroeconomic indices, it becomes pertinent for SMEs to review their internal activities with a view to creating a shield against negative effects of these externalities. This study was thus designed to examine the effect of knowledge application and knowledge sharing on performance of SMEs in South-South Nigeria.

The pace of globalization, increase in technological development, structural changes and the advent of the COVID-19 pandemic has increased the consciousness of individuals, firms, public institution and nongovernmental organisations germaneness of knowledge management (KM) to sustaining improved performance and competitive advantage of firms in a highly competitive environment (Kulkarni & St. Louis. 2003; De Long & Fahey, 2000). Studies linked effective KM to improved competitive advantage and enhanced organisational performance (Ohiorenoya, 2010; Chang & Lee, 2007; Chin-Loy & Mujtaba 2007; Khalifa & Liu 2003; Davidson & Voss, 2002). KM empowers people, groups, and whole organizations as well as networks, regions, and countries to efficiently make, share, and apply information to accomplish strategic and operational objectives (North & Kumta, 2018). Bataineh (2017) and Anitha (2013) report that performance of individuals and organizations rely heavily on organizational policies, KM practices and employee commitment.

Objectives of the Study
The aim of this study is to investigate the relationship between knowledge and performance of small and medium enterprises in Nigeria. Specifically, the study shall seek to:

Ascertain the nature of relationship between structure and performance of small and medium enterprises in Nigeria.

Determine the extent of the relationship between content and performance of small and medium enterprises in Nigeria

Evaluate the magnitude of relationship between social capital and performance of small and medium enterprises in Nigeria.

Research Questions
Based on the problem statement and specific objectives of the study, the following research questions guided the study:

What is the nature of relationship between structure and performance of small and medium enterprises in Nigeria?

What is the extent of relationship between content and performance of small and medium enterprises in Nigeria?

What is the magnitude of relationship between social capital and performance of small and medium enterprises in Nigeria?

Research Hypotheses
The following hypotheses which are stated in the null form were used in this study:

(1) There is no significant relationship between structure and return on investment of small and medium enterprises in Nigeria.

(2) There is no significant relationship between content and profitability of small and medium enterprises in Nigeria.

(3) There is no significant relationship between social capital and sales of small and medium enterprises in Nigeria.

Literature Review
Knowledge sharing is about individuals and groups actively communicating, collecting and immersing knowledge from each other and seeking people who may find their knowledge useful by definition. It is a social interaction culture, involving the exchange of employee knowledge, experiences, and skills through the whole department.

Or organization that creates opportunities for personal and professional growth. According to Foss, Husted and Michailoya (2010), knowledge sharing is designed to transform individual knowledge to organizational knowledge. It is effective in the success of academics and creates competitive advantage when retained. This is because an average worker/educator spends nearly a third of his workday simply searching for information, but by creating a culture that fosters knowledge sharing and makes information easy to find, educators can work more productively and efficiently. Knowledge can be shared in many aspects of life. For those in the academic environment typical areas where sharing is found include: writing books or research papers, delivering a lecture, making a speech or presentation.

Knowledge Application
The degree to which necessary knowledge is accessible to, and used by those who require it has a significant impact on the firm's performance (Alan, 2012). Utilizing knowledge effectively necessitates a variety of knowledge sources and frequent interactions between staff members. If a company's personnel pick up knowledge and apply it more quickly than those of a rival company, it will be more successful (Gathck & Chan, 2017).

To obtain or sustain a competitive advantage, a corporation must be able to master new talents while also strengthening its existing ones. The effectiveness of the company's operations is influenced by employees at all levels (Zaim et al., 2019). Understanding and building the infrastructure needed to enable the acquisition, administration, and transfer of tacit and explicit organizational knowledge is a requirement for using knowledge (Ahmad et al, 2017). According to Alhawari and Al-jarrah (2012), people, process, and technology are the three components that must work together for successful knowledge application.

Knowledge Sharing
To endure and remain competitive, firms are becoming more information-based, and transforming themselves into knowledge specialists (Drucker, 1998, as cited in Ateke & Didia, 2017). Thus, intellectual assets have become more important than any other, because knowledge is a catalyst for differentiating a firm's offerings (Amayah, 2013; Gururajan & Fink, 2010). Healthy organizations generate and use knowledge, by interacting with their environments, absorbing information in the process, turning the information into knowledge, and taking action based on the knowledge, in combination with their experiences, values, and internal rules (Prusak, 1998, as cited in Ateke & Didia, 2017). Hence, learning organizations continually expand their knowledge, creating new knowledge, sharing that knowledge throughout the organization and converting it into forms people can use.

Today's operating milieu requires that all firms make efforts to identify, collect, and share knowledge internally (Gururajan & Fink, 2010). Knowledge must be communicated with coworkers, teammates, and colleagues in order to be used after it is developed or obtained to add value to the organization (Epetimehin & Ekundayo, 2011). Given that businesses suffer information loss due to staff turnover, sharing and transferring knowledge is crucial to KM.

Therefore, all organization members have a responsibility to produce and share knowledge by adopting the mindset that knowledge is an essential component of oneself, making knowledge sharing a personal matter that requires personal commitment (Ekeke, 2011). The value of knowledge increases when it is shared, and it does not diminish when it is transferred (Oluikpe, 2012). Knowledge exchange does not always take place automatically, so, it needs to be encouraged and supported (Mtswenem, 2017).

Performance of Small and Medium-Scale Enterprises

Moullin (2010) defines an organizational performance as how well an organization is managed and the value the organization delivers for customers and other stakeholders. It is also the measurement of the effectiveness and efficiency of an organization and its workers (Neely et al., 2011) where effectiveness refers to the extent to which stakeholder requirements are met, while efficiency is a measure of how economically the organizations resources are utilized when providing a given level of stakeholder and customer satisfaction. Hence, performance can be defined as the use of resources both efficiently and effectively in the achievement of its expected objectives (Ankrah & Mensah, 2015).

Business performance is also the ability of a business to achieve planned results related to financial performance, market performance and shareholder return (Richard et al., 2016; Begonja et al., 2016). Vincent (2014) define business performance results, which produces reliable data on the success and effectiveness of a planned effort. Yadav (2015) describe business performance as a central marvel in commercial philosophies and also a multifaceted phenomenon. Notwithstanding, performance in general links to the attainment goals in any segment of human life.

Resource Based-View (RBV) Theory

RBV theory was propounded by Wernerfelt (1984), but was enriched by the contributions of Barney (1991) and Corner (1991). The theory supports the notion that access to sufficient business resources increases competitiveness, expansion, and growth of firms. The theory identified resources they confer competitive advantage may be physical and intangible in character (Abdulaziz, 2019).

Physical resources that are obvious (resources that can be seen and felt) in nature and found in the structure of physical objects like machinery, equipment, land, buildings, and other things that fall under the ownership and management of the business are referred to as tangible assets. Physical items are easily attainable on the market. As a result, they do not offer much benefit to the company over the long term because competitors can easily acquire a comparable asset (Wang et al., 2012).

Intangible assets include organizational techniques that are non-physical (Talaja, 2012). Unlike tangible assets, intangible assets are abilities of a business that cannot be purchased on the open market but are instead developed over a period of time and integrated within the organization and are commonly seen as competence (Wirattanapornkul, 2012). According to Barney (1991), a firm's success and competitiveness depends primarily on availability of internal resources and competencies that must be Valuable, Rare, Inimitable, and Non substitutable (VRIN).

Knowledge Management

Businesses that must survive and remain competitive must become information-based and transform themselves into knowledge specialist organisation (Drucker, 1998, as cited in Ateke & Didia, 2017). This because knowledge has become a prime catalyst for differentiating a firm's work from its competitors (Ateke & Didia, 2017; Stewart, 2001) and Intellectual assets have become more important than every other because resources. This is even as globalization has instigated rapid advances in ICT and structural change, which has challenged firm to seek newer ways of earning competitive advantage.

Today's organizations are moving fast from labor and capital-intensive techniques to information and knowledge-intensive activities, implying that organizations progressively sell information, knowledge, or intelligent products. Work and capital are currently supplanted by knowledge as an asset (North & Kumta, 2018). For this reason, any organisations or institutions that want to maintain their level of development must be fully aware of the recent trend called the "knowledge economy." Organizations that have been able to take effective advantage of the knowledge economy have been

linked to enhancing organisational performance and overall economic development of a country (Lee & Lan, 2011; Liu & Deng, 2015). In this way, an association really must foster a progression of cycles or systems to more readily deal with their insight resources (OuYang, 2014).

KM is inherently multidimensional. In this study, we view KM through the lenses of knowledge acquisition, knowledge conversion and knowledge protection. Knowledge acquisition according to Cho and Korte (2014), is the process by which organisation invent or create knowledge resources across functional areas of engagement. They described it as a process of gathering ideas, and knowledge required for business growth. Business processes are made available to employee to increase both theirs, and organisational performance. Acquiring timely, accurate, and needed information and knowledge lead to innovation and efficiency and improve overall performance of the organisation (Nazeem, 2015).

Knowledge conversion involves the ability of a firm to share, convert, and distribute vital resources across functional areas of business endeavor. It enable organisations to enhance their competency and efficiency by transforming knowledge acquired, into meaningful and acceptable organisational resource and distributing the knowledge to where it would be needed (Yusoff & Daudi 2010; Bhatt, 2001; Gold et al., 2001).

Knowledge protection on the other hand, involves security-oriented mechanisms developed to protect knowledge resources in an organization from unwanted or illegal use, abuse, or theft of intellectual property (Gold et al, 2001). Knowledge has been generally categorized as an asset. Hence, there is need to protect it adequately, by keeping it updated through contributions from people working within the organization, especially as the world is moving swiftly towards a knowledge-based economy. When this is achieved organizations can leverage their core competency and use them to compete favorably in the business environment.

The essence of knowledge-oriented management is to produce knowledge from information and convert this knowledge into a reasonable competitive advantage (North & Kumta, 2018). Thus, effective and efficient KM through knowledge acquisition, knowledge conversion, and knowledge protection may bestow sustainable competitive advantage that could be used to outperform competitors.

Methodology

The study adopted a survey research design, with a sample size of 400 small and medium enterprises operating in South-South Nigeria was drawn from the entire population of 130,862 fully registered with SMEs as obtained from SMEDAN Report (2021). The study employed structured Questionnaire to collect primary data from owners and managers. A total of 440 copies of Questionnaire were distributed, out of the 440 copies of Questionnaire distributed, a total of 406 were completely filled and retuned. Hence all further analyses were carried out using 406 valid responses. Responses collected were analysed using the multiple regression analysis with the aid of SPSS.

Results and Discussion

Table 1: Descriptive Statistics on Study Variables

	N	Min.	Max.	Mean	Stad. Dev.	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statis-tic	Std. Error	Statistic	Std. Error
KAP	406	1.00	5.00	3.3887	.79900	1.131	.140	1.292	.280
KSH	406	1.00	5.00	2.1395	1.38154	.854	.140	-.768	.280
PRF	406	1.00	5.00	1.9003	1.22340	1.445	.140	1.117	.280
Valid N (listwise)	406								

Source: SPSS Output, 2023

Table 1 indicates the behaviour of all the variables under study. The average value of knowledge application (KAP) recorded was 3.39 indicating that most of the responses were above undecided and towards agreement while the maximum and minimum value stood at 5 and 1 respectively. Also, the skewness value which stood at 1.131 indicates that the variable is normally distributed since it is less than 1.96. Also, Knowledge Sharing (KSH) recorded a minimum and maximum of 1 and 5 respectively, while the mean value stood at 2.14 with a skewness value of .854, the variable also indicated normal distribution. Lastly, performance (PRF) had a minimum and maximum values of 1 and 5 respectively with an average value of 1.90 and a skewness value of 1.445 signifying normal distribution.

Table 2: Correlations

Correlations

		KAP	KSH	PRF
KAP	Pearson Correlation	1	-.157**	.288**
	Sig. (2-tailed)		.006	.000
	N	406	406	406
KSH	Pearson Correlation	-.157**	1	.319**
	Sig. (2-tailed)	.006		.000
	N	406	406	406
PRF	Pearson Correlation	.288**	.319**	1
	Sig. (2-tailed)	.000	.000	
	N	406	406	406

**.Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS Output, 2023

Table 2 shows that knowledge application (KAP) has a weak negative relationship with knowledge sharing (KSH) which stood at -0.157 which is significant at 5% level of significance. KAP showed a weak positive relationship with performance (PRF) which stood at 0.238 and is significant at 5% level of significance. Also, KSH showed a weak positive relationship with PRF which stood at 0.319. All the variables under study satisfy rnulticollinearity as none of the independent variable is strongly related to another.

Table 3: Model Summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the estimate	Durbin-Watson
1	.432	.186	.181	1.10725	2.128

a. Predictors: (Constant), KSH, KAP
b. Dependent Variable: PRF

Table 4: Analyses of Variance

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	83.658	2	41.829	34.118	000[b]
	Residual	365.352	403	1.226		
	Total	449.010	405			

a. Dependent Variable PRF
b. Predictors (Constant), KSH, KAP

Table 5: Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	1	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VF.
1	(Constant)	.572	.175		3.264	.001		
	KAP	.452	.081	.295	5.574	.000	.975	1.025
	KSH	.328	.048	.365	6.997	.000	.975	1.025

a. Dependent Variable PRF

Source: SPSS Output, 2023

The result, as shown in the Tables 3, 4 and 5 reveal an R-square value of 0.186 which signifies that approximately 19% of variation in performance of SMEs in North-Central Nigeria could be explained by the combination of knowledge application and sharing. The remaining 81% variation could be explained by other factors not included in this study. The f-statistics stood at 34.118, while the probability of the f-statistics was found to be significant at 5% level of significance (p 0.000<0.05) which therefore, indicates that the model is fit to measure the association between the variables under study.

The regression line PRF = 0.572 + 0.452 KAP indicates a positive effect of knowledge application on performance signifying that deployment of knowledge by SMEs has helped to improve their performance level to a great extent. The probability oft-statistics stood at 0.000 which is less than 0.05 level of significance thereby indicating that the effect is significant and as such, the study rejects the

null hypothesis leading to the acceptance of the alternative, which states that knowledge application has significant effect on SMEs performance in South-South Nigeria. This finding is consistent with that of Aguilar et al. (2017) who found positive relationship between knowledge application and business performance.

The regression line PRF 0.572 - 0.070 KSH indicates a negative effect of knowledge sharing on performance which imply that SMEs have not done enough to encourage knowledge distribution among employees, which has led to a decline in their level of performance. The probability oft-statistics stood at 0.000 which is less than 0.05 level of significance thereby indicating that the effect is significant and as such the study accepts the alternative hypothesis which states that knowledge sharing has significant effect on performance of SMEs in South-South Nigeria. This finding disagrees with the findings of Young (2016) who found knowledge sharing to have positive effect on social exchange for employees.

Conclusion

A key reason for performing knowledge sharing is to grow individual and organizational memory for immediate and future use.

The findings of this study revealed that:

Knowledge management is crucial in defining a firm's degree of performance based on the research findings.

There is high, positive and significant relationship between knowledge sharing and knowledge retention.

When knowledge is deployed accurately, it can improve performance.

Recommendations

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

Managers/owners should endeavour to acquire more knowledge and skills that will enable them to not only retain the knowledge acquired but also develop it.

It also leads to improve competencies, collaboration and confidence.

References

Aguilar, I. T. M., Guzman, G. M., & Morales, C. L. (2017). Knowledge management and performance in Mexican manufacturing small business. *Research in Economics and Management*, 2 (3), 135-149.

Ahmad, N., Lodhi, M. S., Zaman, K., & Naseem, I. (2017). Knowledge management: A gateway for organizational performance. *Journal of the Knowledge Economy,* 8(3), 859-876

Alan, F. (2012). Knowledge management definitions. Retrieved from http://www.KnowledgeManagementtools,Net/Knowledge-Management-Definition.html

Alaneme, O. C. (2017). Knowledge management capabilities and competitive advantage in the Nigerian food, beverage and tobacco industry. Unpublished Thesis. University of Lagos, Nigeria.

Alhawari, S., & A1-Jarrah, M. (2012). The Impact of knowledge management processes on improving strategic competence: An empirical study in Jordanian insurance companies. *International Journal of Trade, Economics and Finance,* 3(2), 77-96.

Alvarenga, C. D., Neto, B., & Loureiro, B. S. (2014). Knowledge management in the Brazilian agribusiness industry: A case study at Centro De Tecnologia Canavieira. *Electronic Journal of Knowledge Management,* 7(2), 199-210.

Amayah, A.T. (2013). Determinants of knowledge sharing in a public sector organisation. *Journal of Knowledge Management,* 17(3), 454-471.

Ankrah, B. & Mensah, C, C. (2015). Measuring performance in small and medium scale enterprises in the manufacturing industry in Ghana. *International Journal of Research in Business Studies and Management,* 2(12). 34-43.

Ateke, B. W., & Didia, J. U. D. (2017). Agile supply chain management practices for efficient service delivery. *International Journal of Social Policy Management and Administration,* 5(2), 31-50.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management,* 17 (1), 99- 120

Bhatt, O. D. (2001). Knowledge management in organisations: Examining the interaction between technologies, techniques, and people. *Journal of Knowledge Management,* 5(1), 68-75.

Byukusenge, E., & Munene, J. C. (2017). Knowledge management and business performance: Does innovation matter? *Cogent Business and Management,* 4(1), 1-18.

Chang, T. & Chuang, S. (2016). Performance implications of knowledge management processes: Examining the roles of infrastructure capability and business strategy. *Expert Systems with Applications,* 38, 61, 70-78

Chin, L., & Mujtaba, B. O. (2007). The influence of organisational culture on the success of knowledge management practices with North American companies. *International Business and Economic Research Journal,* 6(3), 15-28.

Davidson, C., & Voss, P. (2002). *Knowledge management: An introduction to creating competitive advantage from intellectual capital.* Tandem Press.

DeLong, D., & Fahey, L. (2000). Diagnosing cultural barriers to knowledge management. *Academy of Management Executive,* 14(4), 113-127.

Ekeke, H. E. (2011). Knowledge management in the Nigerian public service. Unpublished Thesis. School of Management and Business, Aberystwyth University, Wales. Retrieved from http://hdl.handle.net2l60/7004.

Epetimehin, F. M., & Ekundayo, O. (2011). Organisational knowledge management: survival strategy for Nigeria insurance industry. Interdisciplinary *Review of Economics and Management*, 1(2), 9-15.

Garrick, J., & Chan, A. (2017). Knowledge management and professional experience: The uneasy dynamics between tacit knowledge and performativity in organisations. *Journal of Knowledge Management*, 21, 872-884.

Gbolami, M. H., Ash, M. N., Shirkouhi, S. N., & Noruzy, A. (2012). Investigating the influence of knowledge management practices on organisational performance: An empirical study, *Acta Polytechnica Hungarica*, 10, 205-216.

Gold, A., Malhotra, A., & Segars, A. (2001). Knowledge management: An organisational capabilities perspective. *Journal of Management Information Systems*, 18(1), 185-214.

Gururajan, V., & Fink, D. (2010). Attitudes towards knowledge transfer in an environment to perform. *Journal of Knowledge Management,* 14(6), 828-840.

Holsapple, C. W., Jones, K., & Leonard, L. N. K. (2015). Knowledge acquisition and its impact on competitiveness. *Knowledge and Process Management*, 22(3), 157-166.

Kasimu, M. A., Roslan, A., & Fadhlin, A. (2012). Knowledge management model in civil Engineering construction firms in Nigeria. *Interdisciplinary Journal of Contemporary Research in Business,* 4(6), 936-950.

Khalifa, M., & Liu, V. (2003). Determinants of successful knowledge management programs. *Electronic Journal on Knowledge Management,* 1(2), 203-1 12.

Kimaiyo, I. K., Kapkiyai, C., & Sang, J. C. (2015). Effect of knowledge management on firm performance in Nakuru, Eldorct and Kisumu commercial banks. *European Journal of Business and Management,* 7(3), 207-216.

Kulkami, U., & St. Louis, R. (2003). Organisational self-assessment of knowledge management maturity. Ninth Americas Conference on Information Systems.

Lee, C., & Wyang, J. (2010). Knowledge value chain. *The Journal of Management Development,* 19 (10), 783-793.

Lee, M. R., & Lan, Y. C. (2011). Toward a unified knowledge management model for SMEs. *Expert Systems with Applications,* 38(1), 729-735.

Liu, S., & Deng, Z. (2015). Understanding knowledge management capability in business process outsourcing. *Management Decision,* 53(1), 124-138.

Mtswenem, P. S. (2019). Effect of knowledge management on the performance of quoted construc-

tion firms in Nigeria Unpublished Thesis. Benue State University Makurdi, Nigeria).
Nazem, F. (2015). *The structural model of knowledge management in universities.*
Neely, A. D., Man, B., Adams, C., & Kapashi, N. (2011). Measuring e-business performance. In A. D. Neely (ed.). Business performance measurement: Theory and Practice. Cambridge University Press.
North, K., & Kumta, O. (2018). *Knowledge management, value creation through organisational learning (2nd edition)*. Springer.
Ohiorenoya, J. O. (2010). Knowledge management and performance in a private corporate organisations: A case study of Benson Idahosa University. *West African Social and Management Sciences Review*, 1(1), 31-43.
Oluikpe, P. (2012). Developing a corporate knowledge management strategy. *Journal of Knowledge Management,* 16(6), 862-878.
Omerzel, D. G. (2010). The impact of knowledge management on SME growth and profitability: A structural equation modelling study. *Africa Journal of Business Management,* 4(16), 3417-3432. http://www.academicjoumals.org/AJBM
Omotayo, F. O. (2015). Knowledge management as an important tool in organizational management. A Review of literature. Library Philosophy and Practice, 4(10), 1-23.
OuYang, Y. C. (2014). A cyclic model for knowledge management capability: A review study. *Arab Journal of Business Management Review,* 4(4), 1-9.
Stewart, I. A. (2001). *The wealth of knowledge: Intellectual capital and the twenty-first century organisation*. Doubleday.
Tubigi, M., & Alshawi, S. (2015). The impact of knowledge management processes on organizational performance: The airline industry case. *Journal of Enterprise Information Management,* 28 (2), 167-185.
Wang, S., & Noe, R. A. (2010). Knowledge sharing: A review and directions for future research. *Human Resource Management Review,* 20(2), 115-131.
Wang, Z., & Wang, N. (2012). Knowledge sharing, innovation and firm performance. *Expert Systems with Applications,* 39, 8899-8908.
Young, C. J. (2016). Knowledge management and innovation firm performance of United States ship repair. Unpublished Thesis. Department of Business Administration, College of Management and Technology Walden University, United States.
Zaied, A., N. H., Hussein, G. S. & Hassan, M. M. (2015). The role of knowledge management in enhancing organizational performance. *International Journal of Information Technology and Computer Science,* 4(2), 1-10.

Employee Wellbeing and Productivity of Selected Family Businesses in Port Harcourt

Geoffrey B. E. Obinna PhD, CPM, CPA
Department of Human Resource Management
Faculty of Management Sciences
Rivers State University Nkpolu-Oroworukwo, Port Harcourt
Obinna.geoffrey@ust.edu.ng
Churchill Ikechukwu Akpe PhD, NASA, CIPMA, ASIPM, MTRCN, JP
Department of Human Resource Management
Faculty of Management Sciences
Rivers State University Nkpolu-Oroworukwo, Port Harcourt
Churchill.akpe@ust.edu.ng

Abstract
This study examined the relationship between employee wellbeing and productivity in selected family businesses in Port Harcourt. The research was based on human capital theory. The cross-sectional survey method was adopted with the help of a structured questionnaire to elicit responses from 268 family businesses in Port Harcourt, Rivers State. SPSS 27.0 was used to perform the data analysis and verify the hypotheses. The results showed that employee wellbeing significantly relates to productivity in selected family businesses in Port Harcourt, Rivers State. In conclusion, this study reveals that by investing in employee well-being, family businesses can improve their productivity and bottom line.
Keywords: Employee well-being, Family Businesses, Productivity, Psychological well-being, Social well-being

Introduction

Adias and Akenbor (2020) assert that family enterprises commonly undergo a transformation from sole proprietorships to entities that are operated, managed, and governed by multiple members of the same family. As per De Margen's (2010) research, the categorization of a firm as family-owned is contingent upon the active involvement of numerous family members, who collectively own a controlling interest of more than 50% in the overall assets of the enterprise. Based on statistical evidence, it is apparent that about 80 percent of multinational corporations worldwide are owned or managed by family entities. Richards (2006) asserts that family businesses are the prevailing kind of enterprise on a global scale.

In the Nigerian setting, a considerable number of firms emerged as familial enterprises and achieved noteworthy success under the leadership of their founding members. Nyamwanza, Mavhiki, and Ganyani (2018) assert that a considerable fraction of companies in Nigeria, approximately 80%, can be classified as family enterprises. These firms primarily vary in size, encompassing either small to medium or medium to large enterprises. Mehrabani and Mohamad (2011) assert that family enterprises have a pivotal role in providing support to a substantial segment of the population, thereby facilitating the reintegration of numerous unemployed individuals into the labour market. This phenomenon results in the creation of job prospects and add to the overall growth of the gross domestic product.

The concept of productivity has garnered significant attention from scholars in the field of management since the inception of management research in the era of the industrial revolution. This focus on productivity is relevant in the present-day context of the twenty-first century, particularly under the backdrop of the COVID-19 pandemic (Singh, Solkhe, & Gautam, 2022). The notion that productivity can impact employee and organisational performance, as well as an organization's competitive advantage, has generated considerable scholarly interest globally (Balwant, Mohammed, & Singh, 2022). Enhancing, strengthening, and preserving a business's total success is deemed a crucial part (Kuhnen & Tymula, 2012).

The conventional conceptualization of productivity has primarily centred on the assessment of input costs relative to the output value (Tavitiyaman, Tsui, Chan, & Miu, 2021). Within the realm of management, the concept of productivity has been delineated as a quantifiable indicator of both operational efficiency and overall effectiveness. In a similar vein, Coker (2011) provided a description of productivity as the degree of an individual's performance in relation to characteristics such as attendance, job quality, performance capacity, and personal attributes.

According to Naeem and Ozuem (2021), productivity refers to the degree to which the use of technology reduces the duration and exertion needed to accomplish a particular undertaking. Enhancing

staff productivity has emerged as a crucial goal for numerous organisations. This is due to the fact that increased productivity provides various benefits to both a company and its employees. An illustration of this phenomenon can be observed in the positive correlation between enhanced productivity and many desirable outcomes such as economic expansion, increased profitability, and improved social progress.

Highly efficient individuals may also have increased salaries, improved working circumstances, and enhanced career prospects. Moreover, it has been observed that the implementation of this strategy has the potential to enhance the competitive edge of companies through cost reduction and enhancement of production quality. Hence, it is vital to examine the contextual factors in order to ensure the sustained prosperity of the organisation.

However, the concept of employee wellbeing can be described as the overall state of well-being that employees believe is affected by their work and interventions implemented in the workplace (Juniper, Bellamy, & White, 2011; Siegrist, Wahrendorf, Knesebeck, Jurges, & Borsch-Supan, 2006). The phrase "well-being" can be defined as a state characterised by comfort, good health, and happiness, as stated in the New Oxford Advanced Learner's Dictionary (7th ed., revised 2005). Employee well-being refers to the whole state of physical, psychological, and emotional health, as well as the level of comfort and happiness experienced by employees. Employee well-being is commonly seen as the holistic experience and functioning of an employee, encompassing both physical and psychological aspects (Warr, 1999).

According to Ryan and Deci (2000), the concept of well-being encompasses two significant philosophical dimensions. The first dimension, known as hedonism, is centred on the pursuit of enjoyment. The second dimension, referred to as eudemonism, pertains to the actualization of human potential. The World Health Organisation (2013) provides a comprehensive definition that aims to encompass the key elements present in the aforementioned definitions pertaining to employee well-being. This definition emphasises the state of each individual employee, encompassing their understanding of their own capabilities, ability to effectively cope with typical life stressors, capacity to engage in productive work, and potential to contribute to their community.

Empirical evidence suggests that the well-being of employees is a significant focal point for organisations. The influence of employee well-being on organisational outcomes is substantial, as evidenced by its effects on several cost factors such as healthcare expenses and disease (Grawitch, Gottschalk, & Munz, 2006). Additionally, employee well-being has been found to impact absenteeism, turnover rates (Spector, 1997), and work performance (Wright, 2010; Wright & Cropanzano, 2007). The well-being of employees has a positive impact on both individual and organisational productivity.

Conversely, the absence of employee well-being can result in both financial and non-financial losses for the business. In their study on the assessment of employee well-being, Pradhan and Hati (2019) proposed a scale to measure psychological and social well-being as key components of employee well-being. Psychological well-being pertains to an individual's personal perception of a positive psychological condition, encompassing elements such as enjoyment, fulfilment in life, and a feeling of direction (Dhanabhakyam & Sarath, 2023). Social well-being refers to an individual's capacity to establish and sustain favourable interpersonal connections, experience a sense of belonging within a community, and engage in society in a purposeful manner (Mozaffari et al., 2014).

In their work titled "An Investigation into Organisational Stress and Employee Productivity: A Case Study of Selected Manufacturing Companies in South-South Nigeria," Demaki and Adise (2023) examined the relationship between organisational stress and employees' productivity. The study conducted by Kobani, Amah, and Okocha (2022) focused on the investigation of stress management and its relationship with employee productivity within the Nigerian work environment. Chukwuma (2022) conducted an evaluation of the impact of organisational change on the productivity of staff members in deposit money banks located in Port Harcourt. Harshitha and Senthil (2021) explored the influence of employee well-being on the overall performance of organisations in the workplace.

In a recent study conducted by Gadhavi, Parikh, Patel, Joshi, and Thaker (2021), the authors examined the relationship between employee wellbeing and employee pleasure within the context of an

Indian institution. The researchers employed x-ray analysis to investigate this association. The current research findings indicate a scarcity of academic literature about the correlation between employee well-being and productivity in specific family-owned enterprises located in Port Harcourt. This conclusion is derived from an examination of the aforementioned studies and the literature that has been evaluated.

Aim and Objectives of the Study

The aim of the study is to examine the relationship between employee well-being and productivity in selected family businesses in Port Harcourt. Thus, the following specific objectives are stated:

- to investigate the relationship between psychological well-being and productivity at selected family businesses in Port Harcourt.
- to evaluate the relationship between social well-being and productivity in selected family businesses in Port Harcourt.

Research Hypotheses

Ho_1: There is no significant relationship between psychological well-being and productivity at selected family businesses in Port Harcourt.

Ho_2: There is no significant relationship between social well-being and productivity of selected family businesses in Port Harcourt.

Concept of Employee Well-being

Employee well-being, commonly referred to as workplace well-being, encompasses various dimensions of the working environment, as outlined by the International Labour arrangement (2022). These dimensions include the quality and physical conditions of the workplace, employees' subjective experiences and perceptions of their work, the overall characteristics of the work environment, and the arrangement of work activities. The investigation into the correlation between the effectiveness of an organisation and the well-being of its employees has been a subject of scholarly inquiry for a considerable period of time (Collings, Scullion, & Caligiuri, 2011).

The well-being of employees has implications for their likely performance and, in turn, has an influence on the financial and non-financial outcomes of the firm. According to the findings of Bakker et al. (2019), there is substantial evidence indicating that the health and overall well-being of employees in relation to their work are fundamental aspects that have a major impact on the success of a business. Therefore, it can be inferred that the maintenance of employee well-being is positively correlated with the potential performance of the organisation.

The consideration of employee well-being is a deliberate and advantageous organisational choice as it facilitates the alignment of human resources within an organisation, which is crucial for the achievement of the organization's strategic goals and objectives. This is achieved by the comprehensive consideration of both the physiological and psychological well-being of the workforce. The promotion of employee well-being has been found to foster favourable social and cultural attitudes inside the workplace (Torrington, Hall, Taylor, & Atkinson, 2014). The successful performance of every company is contingent upon several fundamental variables. Hence, it is imperative for firms to establish a strategic alignment between their overall strategy and human resources by devising and executing efficient human resources practices, programmes, and policies (Senthil, 2021).

Concept of Psychological Well-being

Several scholars have linked psychological well-being to the attainment of life potential and happiness (Ryan & Deci, 2008). Conversely, some researchers have associated well-being with the subjective experiences of individuals (Diener et al., as cited in Roslan, Ahmad, Nabilla & Ghiami, 2017) or the outcomes of goal achievement (Diener, 2009). Additionally, well-being has been linked to the enjoyment derived from engaging in captivating activities (Chekola, as cited in Roslan, Ahmad, Nabilla & Ghiami, 2017). Psychological well-being, as defined by Ryff et al. (as stated in Roslan, Ahmad, Nabilla, & Ghiami, 2017), pertains to the degree to which individuals perceive a sense of meaningful autonomy and influence over their lives and daily pursuits.

Therefore, the researchers Ryff et al. (as cited in Roslan, Ahmad, Nabilla & Ghiami, 2017) introduced a framework consisting of six fundamental dimensions of psychological well-being. These dimensions include: 1) self-acceptance, which refers to the state of possessing positive thoughts and emotions towards oneself; 2) positive relations with others, which involves the ability to engage in

warm and trusting relationships with others; 3) autonomy, which pertains to the capacity to be independent and effectively cope with social pressures; 4) environmental mastery, which encompasses the ability to adapt, modify, or create one's environment in accordance with one's needs through both physical and mental activities; 5) purpose in life, which denotes the state of having objectives and goals in life and actively working towards their attainment; and 6) personal growth, which signifies the continuous process of self-improvement and development.

The concept of psychological well-being is multifaceted, encompassing various dimensions such as life esteem and life satisfaction (Armsden & Greenberg as cited in Roslan, Ahmad, Nabilla & Ghiami, 2017). Additionally, research has shown that psychological well-being is influenced by factors such as mindfulness (Brown & Ryan, 2003), physical activity (Biddle & Asare, 2011; Biddle, Fox, & Boutcher, 2003; Kargarfard, Lam, Shariat, Shaw, Shaw & Tamrin, 2016), and social support (Lakey & Orehek, 2011).

Concept of Social Well-being

The World Health Organisation (WHO), as mentioned in Cicognani (2014), has recognised social well-being as a fundamental element of individuals' holistic health. The topic has been conceptualised and operationalized through many approaches. In the field of economics, researchers have traditionally defined social well-being by employing objective measures, such as gross domestic product (GDP), which serve as indicators of the overall economic prosperity of communities and societies. In a more recent development, the Organisation for Economic Co-operation and Development (OECD) (2011) put up a set of supplementary criteria, in addition to macroeconomic indicators, with the aim of enhancing the assessment of individuals' perceptions of well-being and progress. The operationalization of social well-being in the field of social sciences has been approached by examining behaviours that indicate involvement in community and organisational activities, membership in communities or groups, as well as the presence of social capital and social cohesiveness (Andrews & Withey, 1976; Coleman, 1988; Putnam, 2000).

Concept of Productivity

Productivity can be defined as the quantitative measure of the connection between the outputs produced and the inputs utilised. The phenomenon of rising productivity can be observed when there is a disproportionate increase in output relative to inputs, or when the same level of production is achieved with a reduced amount of inputs (ILO, 2005). The concept of productivity can also be evaluated from a financial perspective. If the price obtained for a product increases without any corresponding increase in input costs, this is also seen as a growth in productivity. The concept of productivity enhancements can be comprehended from several perspectives.

The measurement of staff productivity can be seen by several indicators such as employment rates, wage rates, employment stability, job satisfaction, and employability across different job sectors or industries. The measurement of enterprise productivity encompasses various factors, including output per worker, market share, and export performance. The advantages that societies can derive from enhanced individual and firm productivity are apparent in the form of heightened competitiveness and employment opportunities, as well as a potential reallocation of employment from sectors with lower productivity to those with greater productivity (Chukwuma, 2022).

Staff productivity can be defined as the measure of work accomplished within a specific timeframe by utilising the components of production, as performed by the worker upon completion of a designated task or fiscal year (Bhatti, 2007). Okochi and Ateke (2021) define staff productivity as the level of employee effort reflected in the quality of goods and services produced, adherence to established standards, absence of errors, minimal waste, and the absence of the need for rework. According to Qureshi (2007), employee productivity can be seen as a comprehensive indicator of performance, encompassing both efficiency and effectiveness. Staff productivity, commonly known as the employee output capacity ratio, pertains to the measurement of the efficiency and effectiveness of people within an organisation. The viability and growth of a firm are heavily contingent upon the level of productivity exhibited by its workforce.

Theoretical framework

Human capital theory

The concept of human capital theory acknowledges the significance of individuals as a valuable asset for both companies and nations. It acknowledges that individuals contribute differing levels of economic value based on their unique combination of knowledge, skills, abilities, and traits. Significantly, the theory additionally acknowledges the potential for human beings to undergo development through the processes of education and experience. Human capital theory posits that the process of human development is perceived within an economic framework, wherein the production of human capital is achieved through investments made in education and training (Hooley, 2020).

The theory of human capital offers a valuable framework for understanding the process of wealth creation at the individual level. However, it is in the realm of policy where the theory has exerted its most pronounced impact (Baptiste, 2001). According to Fitzsimons (2017), human capital theory has emerged as the predominant economic theory in Western education, providing the foundation for government policies since the 1960s. Additionally, Fitzsimons highlights that human capital theory is increasingly seen as a crucial factor influencing economic success. In this context, the impact of neoliberalism extends beyond the specific arguments presented by Schultz, Becker, and other theorists. It encompasses a broader ideology that emphasises the significance of education and the cultivation of human capital in facilitating the efficient operation of neoliberalism.

According to this hypothesis, it is posited that employees who possess good physical and mental well-being are inclined to exhibit higher levels of productivity. Family-owned enterprises are perhaps more inclined to allocate resources towards initiatives aimed at enhancing the welfare of their employees, as they perceive such endeavours as strategic investments in their human capital.

Methodology

The data collection for this study employed a cross-sectional approach, utilising a random sample method. In order to conduct the study, we extended invitations to managers and their volunteer staff, utilising personal networks and professional connections for assistance in recruitment. The managers employed a random selection process to choose a group of employees from the team, with each manager selecting between three to five individuals to participate. In order to be eligible for participation, individuals must be employed in a full-time capacity and have a minimum tenure of six months within their present company.

The managers were requested to assign a distinct code name to each employee who intended to participate, while the employees were instructed to record their assigned code on their individual questionnaires. Surveys were distributed to participants over an internet platform, namely Google Forms. The researcher subsequently got the completed surveys by email, utilising the same communication method. Questionnaires were administered individually to those who expressed dissatisfaction with the convenience of utilising Google Forms.

The selection of personnel was conducted in a random manner, and the use of the leader-member dyad approach might serve as a means to mitigate the potential influence of common method bias. The collection of samples took place in the cities of Port Harcourt and Obio/Akpor. A total of 400 questionnaires were distributed, with 337 being retrieved from participants from the financial (POS services), real estate, and manufacturing sectors. Following the process of sorting and screening the questionnaires, those deemed invalid were deleted. This included questionnaires with missing items, poor quality of filling, or an inability to match. A total of 268 valid responses were collected, resulting in an effective recovery rate of 79.53%.

The validity assessment for this study relies on the use and modification of the instrument used in previous investigations (Dussault, 2013; Yang et al., 2022), as well as the incorporation of indicators derived from established theoretical and operational definitions of the constructs under investigation. The inclusion of content-based validity in the instruments is provided. The Cronbach alpha coefficient was employed to assess the reliability of the test in this study. The benchmark of 0.80, as proposed by Nunnally (quoted in Sekaran, 2003), is also utilised in evaluating the dependability of the instrument, with a reliability coefficient more than 0.70 indicating high reliability and a coefficient lower than 0.70 indicating poor reliability (Bryman & Bell, 2011). All of the dependability

values for the instrument exhibited values greater than 0.70.
SPSS version 27.0 was utilised for the purposes of data analysis and hypothesis testing. A descriptive statistical analysis was conducted in order to illustrate the fundamental characteristics of the sample. In order to ascertain the importance of the study variables, a Spearman rank-order correlation coefficient was employed to examine the relationship between the variables.

Result and Discussions

The use of descriptive statistical analysis facilitates the extraction of demographic variables pertaining to the respondents inside the sample. The present study involved the statistical analysis of the gathered sample data, leading to the acquisition of descriptive statistics as presented in Table 1. Out of the total 268 samples, 140 individuals (52.24%) were identified as male, while 128 individuals (47.76%) were identified as female. The average age of the participants was 30.62 years, with the majority falling within the age range of 26-40 years, constituting 77.20% of the sample. The highest level of education attained by most participants was either a senior school certificate or a bachelor's degree, accounting for 86.6% of the sample. There was no statistically significant difference observed between unmarried individuals (42.52%) and married individuals (57.46%).

Table 1: Descriptive statistical analysis

Characteristics	Option	Frequency	Percentage
Gender	Male	140	52.24%
	Female	128	47.76%
Age	21-25 years old	36	13.43%
	26-30 years old	126	47.01%
	31-40 years old	95	35.45%
	41-50 years old	11	4.10%
Education	SSCE/WAEC	94	35.08%
	B.Sc.	172	64.18%
	Masters or above	2	0.75%
Marital Status	Single	114	42.54%
	Married	154	57.46%

Test of Hypotheses

H_{01}: There is no significant relationship between psychological well-being and productivity

Table 2: Analysis of the effect of psychological well-being on productivity

Correlations

			PWB	PDT
Spearman's rho	PWB	Correlation Coefficient	1.000	.829
		Sig. (2-tailed)	.	.002
		N	268	268
	PDT	Correlation Coefficient	.829	1.000
		Sig. (2-tailed)	.002	.
		N	268	268

Source: SPSS 27.0 output on research data

According to the findings shown in Table 2, the Spearman Correlation coefficient is determined to be 0.829, indicating a positive linear association between psychological well-being and productivity. The Correlation test yielded a statistically significant result, as evidenced by a p-value of 0.002. A positive correlation is seen between psychological well-being and productivity, indicating that an increase in psychological well-being is associated with a corresponding rise in productivity. The study's findings indicate a significant correlation between psychological well-being and productivity. Consequently, the null hypothesis was refuted, hence accepting the alternative hypothesis that posits a substantial positive correlation between psychological well-being and productivity.

Hypothesis Two

H_{02}: There is no significant relationship between social well-being and productivity

Table 3: Analysis of the effect of social well-being on productivity

Correlations

			SWB	PDT
Spearman's rho	SWB	Correlation Coefficient	1.000	.786
		Sig. (2-tailed)	.	.001
		N	268	268
	PDT	Correlation Coefficient	.786	1.000
		Sig. (2-tailed)	.001	.
		N	268	268

Source: SPSS 27.0 output on research data

According to the findings shown in Table 3, the Spearman Correlation coefficient is determined to be 0.786. This value indicates the presence of a positive linear association between social well-being and productivity. The Correlation test yielded a statistically significant result ($p = 0.001$). The calculated p-value is found to be statistically significant at a significance level of 0.05. A favourable correlation is shown between the level of social well-being and productivity. The study's findings indicate a correlation between social well-being and productivity, so establishing a connection between these two variables. Consequently, the null hypothesis was invalidated, leading to the acceptance of the alternative hypothesis, which posits a positive and statistically significant correlation between social well-being and productivity.

Discussions of Findings

The statistical analysis employed the Spearman's rank correlation coefficient within the statistical package for social sciences software version 27.0. The findings of the study demonstrate a significant correlation between psychological well-being and productivity, so providing support for the first hypothesis. The statement provided is consistent with the findings reported by Holman, Chissick, and Totterdell (2002) in their research with a sample of 47 individuals employed in the service sector. A notable and affirmative association was established between psychological well-being and performance.

The impact of psychological well-being on performance was investigated in a study including 109

managers. The findings indicated a noteworthy and favourable association between psychological well-being and performance (Wright, Cropanzano, & Bonett, 2007). Recent research has been undertaken to examine the relationship between psychological well-being and work engagement. Findings from these studies indicate that burnout, work engagement, workaholism, and job satisfaction are key factors that contribute to an individual's psychological well-being (Bakker & Oerlemans, 2011; Makikangas et al., 2015).

The study conducted by Shimazu et al. (2009, 2012) examined the association between psychological well-being and work engagement, revealing a noteworthy and positive link between these two variables. In a separate investigation, the relationship between psychological well-being and work engagement was explored, and it was found that psychological well-being had a notable and favourable impact on work engagement (Brunetto et al., 2012).

Hypothesis 2 establishes a statistically significant association between social well-being and productivity. This observation is consistent with the existing body of research on the topic of relationships and community development (Blatt & Camden, 2007; Stephens et al., 2011). The interviewees place significant emphasis on short-term contacts and emotional responses in their statements. This highlights the importance of daily workplace stressors or affective events (Ashkanasy et al., 2014) for social well-being and supports Fisher's (2014) interpretation of social well-being, which encompasses both immediate and lasting well-being.

Following a period of disagreement between the hedonics and eudaimonics philosophical traditions, wherein hedonics raised concerns regarding the conceptual and methodological complexity of the relatively newer eudaimonia approach, and eudaimonics regarded hedonic pleasure as less significant in the pursuit of a fulfilling life, a number of scholars now advocate for the integration of both perspectives (Henderson & Knight, 2012; Lambert et al., 2015). According to Waterman (2008), the presence of hedonia is essential for the existence of eudaimonia, a notion that seems to be supported by the concept mapping.

Conclusion

The conclusion was derived from the analysis and interpretation of the study's findings as presented in the discussion section. Employee wellbeing approaches have been found to have a positive impact on productivity. To be more precise,

Psychological well-being has been found to have a substantial impact on productivity of selected family businesses in Port Harcourt.

Social well-being has been found to have a considerable positive impact on productivity in selected family businesses in Port Harcourt.

Recommendations

Based on the aforementioned debates and findings, the current study presents the following recommendations regarding the relationship between employee well-being and productivity within a particular subgroup of family-owned businesses situated in Port Harcourt.

It is imperative for family businesses in Port Harcourt to foster an environment that promotes open dialogue among employees on their mental well-being. This can be achieved through the implementation of mental health awareness training programmes and the cultivation of a workplace environment that fosters open dialogue regarding mental health concerns, thereby mitigating the potential for stigmatisation.

It is imperative for family-owned enterprises in Port Harcourt to establish and foster a work-life balance culture. This entails promoting and facilitating employees' engagement in breaks, vacations, and quality time with their families and friends.

It is recommended that family companies in Port Harcourt consider implementing mental health screenings. This approach facilitates the identification of employees who may be susceptible to mental health issues, hence enabling timely provision of the necessary support.

It is recommended that family firms operating in Port Harcourt establish a mentorship programme. This can facilitate the establishment of connections between employees and their more experienced counterparts, enabling the former to get valuable guidance and support.

It is recommended that family firms operating in Port Harcourt consider implementing social activities aimed at fostering employee engagement and promoting familial bonds among their workforce. This can potentially enhance the interpersonal bonds between employees and their families, hence contributing to enhanced social well-being.

References

Adias, L., & Akenbor, L. C. (2020). Succession planning and organizational survival of family business for nation building: evidence from private primary schools in Rivers State. *Nigerian Academy of Management Journal,* 15(3), 16-28.

Andrews, F., & Withey, S. (1976). *Social indicators of well-being.* New York: Plenum Press.

Ashkanasy, N. M., Ayoko, O. B., & Jehn, K. A. (2014). Understanding the physical environment of work and employee behavior: an affective events perspective. *Journal of Organizational Behaviour*, 35, 1169-1184.

Bakker, A. B., Hetland, J., Olsen, O. K., & Espevik, R. (2019). Daily strengths use and employee wellbeing: the moderating role of personality. *Journal of Occupational and Organizational Psychology*, 92(1), 144-168.

Bakker, A. B., & Oerlemans, W. (2011). Subjective psychological well-being in organization", In K.S Cameron and G.M. Spreitzer (Eds), *The Oxford Handbook of Positive Organizational Scholarship* (pp. 178–189). New York: Oxford University Press. doi: 10.1093/oxfordhb/9780199734610.013.0014.

Balwant, P. T., Mohammed, R., & Singh, R. (2022). Training and development climate and administrative employees' productivity in higher education. *Journal of Applied Resource Higher Educ.*; 14(1): 77-91. doi: 10.1108/JARHE-08-2020-0268.

Baptiste, I. (2001). Educating lone wolves: Pedagogical implications of human capital theory. *Adult Education Quarterly*, 51, 184–201. https://doi.org/10.1177/074171360105100302.

Bhatti, K. K., (2007). Impact of employee participation on job satisfaction, employee commitment and employee productivity. *International Review of Business Research*, 3, 54-68.

Biddle, S. J., Fox, K., & Boutcher, S. (2003). *Physical activity and psychological well-being*: Routledge.

Biddle, S. J., & Asare, M. (2011). Physical activity and mental health in children and adolescents: a review of reviews. *British Journal of Sports Medicine*, 34-42.

Blatt, R., & Camden, C. T. (2007). Positive relationships and cultivating community. in Dutton, J.E. and Ragins, B.R. (Eds), *Exploring Positive Relationships at Work*: Building a Theoretical and Research Foundation, Lawrence Erlbaum, Mahwah, New Jersey, pp. 243-264.

Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84(4): 822-831.

Brunetto, Y., Teo, S. T., Shacklock, K., & Farr- Wharton, R. (2012). Emotional intelligence, job satisfaction, well- being and engagement: Explaining organisational commitment and turnover intentions in policing. *Human Resource Management Journal*, 22(4), 428-441.

Bryman, A., & Bell, E. (2011). *Business Research Methods*. 3rd Edition, Oxford University Press, Oxford.

Cicognani, E. (2014). Social well-being. In: Michalos, A. C. (eds) *Encyclopedia of quality of life and well-being research*. Springer, Dordrecht. https://doi.org/10.1007/978-94-007-0753-5_2797.

Chukwuma, N. N. (2022). Organizational change and productivity of deposit money banks' staff in Port Harcourt. *Nigerian Journal of Management Sciences,* 23(2), 116-131.

Coker, B. L. S. (2011). Freedom to surf: the positive effects of workplace Internet leisure browsing. *New Technology, Work and Employ*, 26(3), 238-47. doi: 10.1111/j.1468-005X.2011.00272.x.

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociolo-*

gy, 94, 95-120.
Collings, D., Scullion, H., & Caligiuri, P. (2011). *Global talent management*. Routledge.
De Margen, O. (2010). An assessment of succession planning in family-owned businesses in Malaysia. *Asia Journal of Business*, 12(4), 29 - 36.
Demaki, G., & Adise, A. T. (2023). Organizational stress and employees' productivity: A study of selected manufacturing companies in South-South, Nigeria. *American International Journal of Business Management,* 6(7), 177-186.
Dhanabhakyam, M., & Sarath, M. (2023). Psychological wellbeing: A systematic Literature Review. *International Journal of Advanced Research in Sciences, Communication and Technology*, 3 (1), 603-607.
Diener, E. (2009). *Subjective well-being, in The science of well-being*. Springer. 11-58.
Dussault, M. (2013). Leadership: Validation of Self-Report Scale. *Psychological Reports: Human Resources & Marketing,* 112(2), 419-436.
Fisher, C. D. (2014). Conceptualizing and measuring wellbeing at work. in Chen, P.Y. and Cooper, C.L. (Eds), *Wellbeing: A Complete Reference Guide, Work and Wellbeing*, Wiley Blackwell, New York, pp. 9-34.
Fitzsimons, P. (2017). Human capital theory and education. In M. A. Peters (Ed.), *Encyclopaedia of educational philosophy and theory*. Singapore: Springer.
Gadhavi, D., Parikh, A., Patel, V., Joshi, N., & Thaker, D. (2021). Employee wellbeing and employee's happiness: A study of an Indian University. *Academy of Strategic Management Journal,* 20(6), 1-11.
Harshitha, L., & Senthil, B. A. (2021). Impact of employee well-being on organizational performance in workplace. *Wesleyan Journal of Research,* 14(30), 27-38.
Henderson, L., & Knight, T. (2012). Integrating the hedonic and eudaimonic perspectives to more comprehensively understand wellbeing and pathways to wellbeing. *International Journal of Wellbeing, International Journal of Wellbeing*, 2(3), 196-221.
Holman, D., Chissick, C., & Totterdell, P. (2002). The effects of performance monitoring on emotional labor and psychological well-being in call centers. *Motivation and Emotion*, 26(1), 57-81.
Hooley, T. (2020). Career Development and Human Capital Theory: Preaching the "Education Gospel". In Robertson, P., Hooley, T., & McCash, P. (Eds.). *The Oxford Handbook of Career Development. Oxford*: Oxford University Press. https://doi.org/10.1093/oxfordhb/9780190069704.013.5
Ilo.org, (2022). *Workplace well-being*. [online] Ilo.org. Available at: [Accessed 1 July 2022]. Available at https://www.ilo.org/safework/areasofwork/workplace-health-promotion-and-well-being/WCMS_118396/lang-en/index.htm#
International Labour Organization (2005). *Number of work related accidents and illnesses continues to increase*, ILO and WHO join in call for Prevention Strategies Press Release.
Kargarfard, M., Lam, E. T., Shariat, A., Shaw, I., Shaw, B. S., & Tamrin, S. B. (2016). Efficacy of massage on muscle soreness, perceived recovery, physiological restoration and physical performance in male bodybuilders. *Journal of Sports Sciences*, *34*(10), 959-965.
Kargarfard, M., Shariat, A., Shaw, B. S., Shaw, I., Lam, E. T., Kheiri, A., & Tamrin, S. B. (2015). Effects of polluted air on cardiovascular and hematological parameters after progressive maximal aerobic exercise. *Lung*, *193*, 275-281.
Kobani, B. P., Amah, E., & Okocha, B. F. (2022). Stress management and employee productivity: An examination of the Nigerian work environment. *International Journal of Innovative Science and Research Technology,* 7(7), 163-170.
Kuhnen, C. M., & Tymula, A. (2012). Feedback, Self-Esteem, and Performance in Organizations. *Management Science*, 58(1), 94-113. doi: 10.1287/mnsc.1110.1379.
Lakey, B., & Orehek, E. (2011). Relational regulation theory: a new approach to explain the link between perceived social support and mental health. *Psychological Review*, 118(3): 482-90.
Lambert, L., Passmore, H.-A., & Holder, M. (2015). Foundational frameworks of positive psychology: mapping well-being orientations. *Canadian Psychological Association*, 56(3), 311-321.

Mäkikangas, A., Rantanen, J., Bakker, A. B., Kinnunen, M. L., Pulkkinen, L., & Kokko, K. (2015). The circumplex model of occupational well-being: Its relation with personality. *Journal for Person-Oriented Research*, *1*(3).
Mehrabani, S. E., & Mohamad, N. A. (2011). Succession planning: A necessary process in today's organization. *International Journal of e-Education, e-Business, e-Management and e-Learning*, *1*(5), 371.
Mozaffari, N., Dadkhah, B., Shamshiri, M., Mohammadi, M. A., & Nayeri, N. D. (2014). The status of social well-being in Iranian nurses: A cross-sectional study. *Journal of caring sciences*, *3* (4), 239.
Naeem, M., & Ozuem, W. (2021). Exploring the use of social media sites for health professionals' engagement and productivity in public sector hospitals. *Empl Relat.*, 43(5), 1029-51. doi: 10.1108/ER-08-2020-0391.
Nyamwanza, T., Mavhiki, S., & Ganyani, R. (2018). Succession planning in polygamous family businesses: a case of a family business in Zimbabwe. *IOSR Journal of Business and Management* (IOSR-JBM), 20(8), 32 – 39.
OECD (2011). *Better life compendium of OECD well-being indicators.* Paris: Author.
Okochi, K., & Ateke, B. W. (2021). Influence of employee empowerment on output quality: Evidence from Eni oil and gas industries, Nigeria. *POLAC International Journal of Economics and Management Sciences*, 7(1), 39-47.
Pradhan, R. K., & Hati, L. (2022). The measurement of employee well-being: development and validation of a scale. *Global Business Review*, *23*(2), 385-407.
Putnam, R. (2000). *Bowling done*: *The collapse and revival of American community.* New York: Simon and Schuster.
Qureshi, T. M. (2007). Impact of employee participation on job satisfaction, employee commitment and employee productivity. *International Review of Business Research*, 3, 54-68.
Richards, E. (2006). *Family business management: Concepts and Practice*. Iowa: Kendall/Hunt Publishing Company.
Roslan, S., Ahmad, N., Nabilla, N., & Ghiami, Z. (2017). Psychological well-being among postgraduate students. *Acta Medica Bulgarica,* XLIV (1), 35-41.
Ryan, R. M., & Deci, E. L. (2008). *Self-determination theory and the role of basic psychological needs in personality and the organization of behaviour*. Handbook of personality: Theory and research. 3: 654-78.
Sekaran, U. (2003). *Research Methods for Business: A Skill-Building Approach*. 4th Edition, John Wiley & Sons, New York.
Senthil, A. (2021). Impact of employee well-being on organisational performance in the workplace. *Wesleyan Journal of Research*, 14(30), 27-36.
Shimazu, A., & Schaufeli, W. B. (2009). Is workaholism good or bad for employee psychological well-being? The distinctiveness of workaholism and work engagement among Japanese employees. *Industrial health*, 47(5), 495-502.
Shimazu, A., Schaufeli, W. B., Kubota, K., & Kawakami, N. (2012). Do workaholism and work engagement predict employee psychological well-being and performance in opposite directions?, *Industrial health*, 50(4), 316-321.
Singh, S., Solkhe, A., & Gautam, P. (2022). What do we know about employee productivity?: Insights from Bibliometric Analysis. *Journal of Scientometric Resources,* 11(2), 183-198.
Stephens, J. P., Heaphy, E. D., Dutton, J. E., Spreitzer, G. M., & Cameron, K. S. (2011). High-quality connections, in Spreitzer, G.M. and Cameron, K.S. (Eds), *The Oxford Handbook of Positive Organizational Scholarship*, doi: 10.1093/oxfordhb/9780199734610.013.0029.
Tavitiyaman, P., Tsui, B., Chan, C. L. F., & Miu, H. W. (2021). Employee productivity of hotel room attendants: an input–output perspective. *International Journal of Hospitality and Tourism Admin*, 19, 1-28. doi: 10.1080/15256480.2021.1881941.
Torrington, D., Hall, L., Taylor, S., & Atkinson, C. (2014). *Human Resource Management 9th Edn*. Pearson Higher Ed.
Wright, T. A., Cropanzano, R., & Bonett, D. G. (2007). The moderating role of employee positive

well-being on the relation between job satisfaction and job performance. *Journal of Occupational Health Psychology*, 12(2), 93.
Yang, T., Jiang, X., & Cheng, H. (2022). Employee Recognition, Task Performance, and OCB: Mediated and Moderated by Pride. *Sustainability*, 14, 1631.

Green Human Resource Involvement and Organizational Sustainability of Quoted Manufacturing Companies in South-South Nigeria

Adias Lolo Teddy
Department of Business Administration and Management
Bayelsa State Polytechnic
loloadia@yahoo.com

Wokoma, Harcourt Opubo
Department of Business Administration
Faculty of Management Sciences,
Federal University Otuoke, Bayelsa State
opuskki@gmail.com

Abstract
The purpose of this study is to determine the relationship between Green Human Resource Involvement and organizational sustainability of quoted manufacturing companies in South-south Nigeria. In the collection of data, a cross sectional design using quantitative research methodology was utilized. Data were gotten from 112 respondents which were managers at various cadre in the chosen study companies. The Concept of Stakeholder Theory reinforced the study. The descriptive data analysis is given in relation to the level of relationship between the variables, and the Spearman's rank order correlation coefficient, was used to determine the predictableness of the organizational sustainability using the independent variables (GHRI). The findings of the study showed significant relationships between the independent variables (Green Human Resource Involvement) and organizational sustainability. The study recommended the management of the manufacturing firms in South-south Nigeria should establish and maintain leadership frameworks that are inclusive, participative and also allow for increased contributions and green involvement from the workers.
Keywords: Green human resource management, green human resource involvement, organizational sustainability

Introducton

Over a long period of time economic progress and advancement has been the centrality of all business organizations globally (Swagato, Arindam & Saileswar, 2022). Madan, (2016) posits that the business world is supposed to make profit, but not at the detriment of the environment. It is imperative to note that the pinnacle of economic development in every region is to deliver improved living standard and a better work prospects. This, Sahoo and Sethi (2020) buttress can be achieved through Industrialization which they claim is the important feature of economic development. Bhandari (2017) argues that the positive economic and social consequences of development in industrialization have impacted severe corrosion on the environment. This one can say is as a result of the activities of business organizations especially those involved in manufacturing one product or the other just to meet the demand of humanity and for their ultimate sustainability.

Consequently, the proliferation of global environmental concerns and the enactment of international environmental standards have obliged organizations world over to inculcate formal environmental plans and programmes (Daily & Huang, 2011). Organizations are gradually seeing a growing awareness of the significance and acceptance of environmentally sustainable practices and implementing strategies for environmental management. The adoption of sustainable business practices is imperative in light of the corporate world's increasing globalization. This change involves a withdrawal from traditional financial structures towards a modern capacity-based economy that holds the exploration of environmentally friendly aspects within business operations.

The activities of organizations and their espousal of organizational sustainability are expressively impacted by human resource factor (Schaltegger & Burritt, 2018). Green focused management practices are executed only by employees that possess a favorable inclination towards the environment and hold a solid sense of responsibility for their actions, predominantly those that may have

environmental significances.

Green HR refers to the use of environmentally sustainable practices within human resource management. This involves the reduction of carbon footprint implementation through the barrel of various strategies put in place, such as reducing the usage of paper by embracing work place digitalization, using video conferencing for communication, and carrying out online HR procurement instead of in-person meetings. Swagato et al. (2022) reinforced that to eventually reduce the use of vitality and other assets, activity like car sharing, cycling, open transport system integrated inside Green HRM functions for the cause of climate change and other natural issues, and preparation of strategies in work field is crucial. They further opine that some Green Human Resource Management undertakings are completed by the employees for their personal undertakings and boost natural contributions to the place of work. For upholding continuing business transactions in organization, union agents arrange for green plan at office (Swagato *et al.,* 2022).

Therefore, it is expected that the application of HRM practices will boost the awakening of environmentally awareness of human resources and ultimately the culture of the organization. This can be realized by procuring the human resource who prioritize environmental sustainability, preparing workers with technological and innovative skills and capabilities via training programmes, and offering rewards and incentives to inspire the effective implementation of environmental management initiatives.

Human resource management that integrates the ambitions of sustainable development into its progressions, practices and regulations can permit organizations to gain a competitive edge that will stand the test of time (Almada & Borges, 2018). The realization of this can be through effective application of Green Human Resource Management practices like green HR procurement process, green analysis, green training, green performance, etc. as it will translate to the creation of a green environment devoid of contamination to operate and live for increase sustainability, competitive advantage, to attain organizational effectiveness and ultimately maintaining the green way of life of the organization. Ahmad (2015) reiterate that consequent upon this, green human resource management (GHRM) has been acknowledged as a substantial business catalyst for fostering business development where the department of Human Resources is a vivacious key player in the execution efforts for the environment.

A research conducted in selected Indian organization on green HRM practices indicated an impact on the quality of work-life of the employees (Jayashree, 2019). Employee green behavior is influenced by sustainable and eco-friendly HRM practices (Sohaib Zubair, 2019). A study on employee's perception towards green HRM initiatives showed the involvement of employees and their participation in the case of green HRM practices (Swagato *et al.,* 2022). The results of this study principally maintained the fundamental specifics that workers are concerned about both individual role in the green initiatives and organizational role in executing green HRM policy in the organization (Rajput & Pachauri, 2018). Additional study deliberated diverse forms of management strategies adopted by organizations and also attempted to add to the evolving area of green management of the organizations and the sustainable development of the stakeholders (Loknath & Azeem, 2017). In this paper the researcher aimed at exploring the relationship between Green Human Resource Involvement and Organizational Sustainability of Quoted Manufacturing Companies in South-South Nigeria.

Statement of the Problem

With the proliferation of green practices in organizations globally Human Resource professionals in most companies in Nigeria today are directly or indirectly attempting to clinch to green policies and initiatives in their day to day businesses. Organizations today give emphasis to online sharing of training/self-learning materials, reinforcing the rule of switching off their electrical appliances like computer monitors when they are away from their desks, keeping minimum lighting when not working and more usage of LED etc.

The opinions researchers have showed that undertaking greening in the organization entails an overall involvement of all members of organizations. It is imperative to necessitate the development of a resilient social conscience and green sense of responsibility for all employees. The contention is that the propellant of sustainability within the organization is the Human resource function which should bring into line its practices and policies with sustainability goals. However, what is the measure of relativity between the involvement of human resource and organizational sustainability. It is on this proposition that this study sets out to investigate Green human resource involvement and Organizational sustainability of Quoted Manufacturing Companies in South-South Nigeria. .

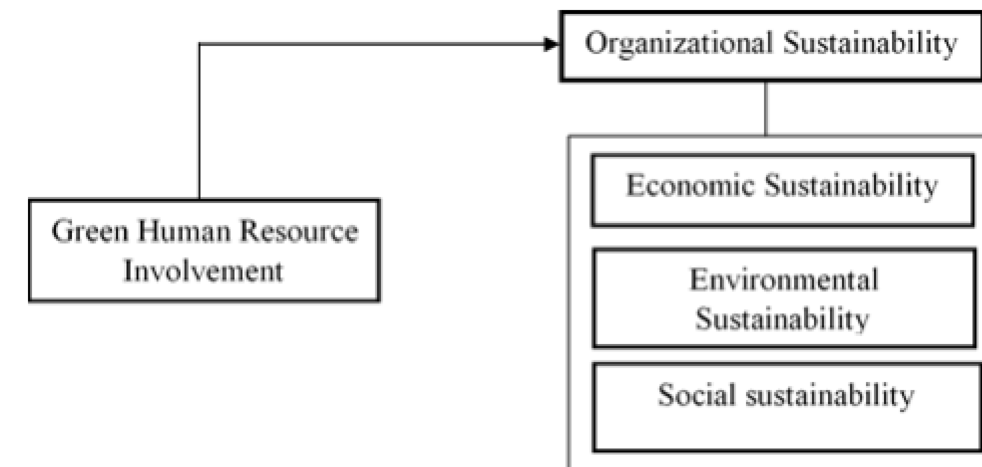


Fig. 1: Conceptual model of green human resource involvement and organization sustainability.
Source: Desk Research (2023).

Research Objectives

Determine the relationship between Green HR Involvement and Economic sustainability of Quoted Manufacturing Companies in South-South Nigeria.

Determine the relationship between Green HR Involvement and Environmental sustainability of Quoted Manufacturing Companies in South-South Nigeria.

Determine the relationship between Green HR Involvement and Social sustainability of Quoted Manufacturing Companies in South-South Nigeria.

Research Questions

What is the relationship between Green HR Involvement and Economic organizational sustainability of Quoted Manufacturing Companies in South-South Nigeria?

What is the relationship between Green HR Involvement and Environmental sustainability of Quoted Manufacturing Companies in South-South Nigeria?

What is the relationship between Green HR Involvement and Social sustainability of Quoted Manufacturing Companies in South-South Nigeria?

Literature Review

Theoretical foundation: Stakeholder theory

The concept of stakeholder theory was first introduced by Dr. F. Edward Freeman, a renowned professor at the University of Virginia, in his influential publication titled "Strategic Management: A Stakeholder Approach" in the year 1984. According to stakeholder theory, corporations or organizations are obligated to cater for several groups, including shareholders who are often referred to as financial investors. According to stakeholder theory, individuals or groups who are impacted by the organization or its operations are regarded as stakeholders. This encompasses a wide range of entities like as workers, consumers, suppliers, local communities, environmental organizations, governmental bodies, and others. The stakeholder theory posits that organizations and businesses should

prioritize the welfare of all its stakeholders, with the belief that such actions will lead to sustained and genuine success for the organization.

The stakeholder theory asserts that managers have a fundamental obligation not just to prioritize the interests of shareholders, but also to consider the broader effect on various stakeholders (Moneva & Pajares, 2018). A stakeholder of an organization refers to an individual who has a direct or indirect interest in the operations and outcomes of the firm. In essence, stakeholders of an organization include individuals or entities that exert influence on, or are influenced by, the activities and functions of that organization. Stakeholders may be categorized into two groups: those who are closely connected to the business environment and own direct stakes, such as workers and shareholders, and those who are more distant and have indirect stakes, such as communities and individuals/entities external to the firm. Therefore, the theory has been chosen in this research to provide a full explanation of all its propositions. The essence of the stakeholder theory has been used in previous research as well (Järlström, Saru & Vanhala, 2018; Guerci, Longoni & Luzzini, 2015).

In order to attain business sustainability, it is essential for a corporation to conduct an introspective and outward examination to comprehend its ecological and societal ramifications (Donaldson & Preston, 1995). The involvement of relevant stakeholders is necessary in order to get a comprehensive understanding and acknowledgement of the many consequences and issues involved. A firm has the capacity to prioritize corporate sustainability via internal initiatives such as staff training and the development of plans or policies that promote sustainability. Dissanayake, Tilt and Xydias-Lobo, (2016) reiterate that even though the anticipations of different stakeholders across various sectors may display diversities, their significance remains essential.

Green Human Resource Involvement

Green Human Resource Involvement is a dimension of Green Human Resource Management which gives attention to intensifying supportive role to the organization in the quest for sustainability. In Green HR, HRM policies are used to encourage and support the sustainable use of resources and preserve the natural environment. Green involvement refers to the participation of organizational employees in green accomplishments (Jamal, Zahid, Martins, Mata, Rahman & Mata, 2021). This participation of workers in green activities motivates and encourages them to support the organization in the prevention of effluence and avoidable waste (Guerci & Carollo, 2015; O'Donohue & Torugsa, 2015).

An evaluation of many scholarly works establishes the fact that green involvement (GI) is a crucial factor in improving the performance of organizations (For instance, reducing waste and pollution, and making judicious use of resources in the organization) (Alhaddi, 2015; Delmas & Burbano, 2011; Colwell & Joshi, 2011). As part of initiating green and eco-friendly ideas and embracing green practices, organizations have to inspire and motivate their employees to become active participants in greening the organization. This can be arrived at when employees are given he requite empowerment (Ahmad, 2015; Alhaddi, 2015).

In the pursuit of the forgoing, onus lies on the human resource department to work on emphasizing the prominence and necessity of establishing a participatory work atmosphere for strategic level managers. It expected to be an atmosphere where workers have the leverage to express their opinion without any form of fear even when their opinion is not in line with top managements' decisions. In the view of this, the environment should be such that workers can advise or give divergent notions to handle important organizational matters (Zibarras & Coan, 2015).

Nevertheless, giving credence to employees and their involvement came to bear on the fact that people at the workplace like to be sovereign especially in making resolutions concerning environmental issues and other subject matters affiliated to sustainability that may arise in the application of organizational sustainability and its numerous ingenuities (Tahir, Safwan, Usman & Adnan, 2020; Meyer, Estrin, Bhaumik & Peng, 2008). In the actualization of this, employees in the organization

must be carried along in the formulation and development of strategies to tackle environmental issues. This will enable them to advance and expand on the necessary knowledge for greening in the organization.

Concept of Organizational Sustainability

Organizations are in the pursuit for sustainability and that they always want to reflect in the production of improved products and services to match the ever increasing appetite of consumer and in so doing optimize economic gains bearing in mind the issue of addressing social and ecological concerns (Barbier, 2007; Hunt, 2011). Amrutha and Geetha (2020) defined Organizational sustainability as the capability of an organization to collaborate in a way that assures the smooth continuation, good condition and existence of the organization, not keeping out of place the social, economic and environmental constituents that are connected to it. It symbolizes everything about incorporating the goals of sustainable development, for instance, economic efficiency, societal equality, and eco-friendly disclosures, into the atmosphere of operation of industries (Varsei, Soosay, Fahimnia & Sarkis, 2014).

Kernel (2005) in explaining Organizational sustainability postulates that it was an outcome necessary on the premise of organizational policies and functions that placed premium on relationships, development and the environment (Roberts & Tribe, 2008). Tamunomiebi and Mezeh (2022) opined that several organizations need to stay with the combination of ecological, environmental and socio-cultural elements of organizational sustainability. A thought-provoking study of their work revealed that Green Recruitment and Selection which is same as Green Human Resource Procurement has a positive relationship with corporate sustainability (Tamunomiebi & Mezeh, 2022).

Economic Sustainability

According to Roberts and Tribe, (2008) as cited Tamunomiebi and Mezeh, (2022) economic sustainability denotes the capability of an organization to make profit so as to remain in business and be of value to the economic systems at both local and national level. This explains the fact that an organization that is termed sustainable or a sustainable business considers the economic effect it will have on the area of operation, such as, local wages, creation of job opportunities and their attendant impact on economic growth of the locality. This comprises dealers and an engagement across the supply chain to guarantee comparable standards and practices are matters affecting economic sustainability. Landrum and Edwards, (2009) reiterate that business organizations are required to preserve corporate profitability and internal financial stability if they must survive and satisfy the requirements of their various shareholders.

Tamunomiebi and Mezeh (2022) posits that there are numerous and enduring deliberations on the core notion and explanation of sustainable economy. However, Kernel (2005) emphasized that reduction of poverty from world the core concern of sustainable economic development. Kernel thought is that it is feasible by providing of safety, security, and perpetual livelihood. On the contrary view, Font and Harris (2004) posits that the central purpose of economy in sustainable development. The Provision of a generally accepted definition on the idea of sustainable economy is considered challenging.

Environmental Sustainability

Neeraja (2018) in explaining this dimension of organizational sustainability brought to book the fact that green HRM entails human resource management policies that uphold the sustainable usage of resources within business establishments and largely the cause of environmental sustainability. Environmental Sustainability has to do with the physical environment which is strongly influenced by and constitutes, social order (society), developing systems, organic systems, and economies. These systems that are evolving or developing will generate variations in some facets of the physical environs that will impede or resist the changes in other facets. Therefore, Hobson and Essex (2001) averred that, no program on environmental sustainability can totally sustain or uphold every component and aspect of the whole physical environment.

The idea of environmental sustainability has got a wider spread of literary work as shown in extant literature. From the perspective of the manufacturing industry extensive statistics are evident regarding the subject matter of environment, issues like, waste to wealth, energy conservation, reprocessing, waste management, water conservation, etc. Knowles, Macmillan, Palmer, Grabowski and Hashimoto (1999) indicated that, a research in London affirmed that respondents in manufacturing sector pointed out that they are involved in taking action on one environmental issue or the other.

Tamunomiebi and Mezeh (2022) corroborates that a lot of researchers buttress that the most organizations (especially those in production or manufacturing) are not unaware of their adverse effects on the environment. In itemizing the areas of environmental action with respect to resource depletion, Middleton and Hawkins (1998); Hobson and Essex (2001) listed, energy, water and non-renewable resource usage. Additionally, some aspects geared towards more environmentally friendly action control embraced by manufacturing companies could be: reprocessing systems; use of unbleached and undyed fabrics, use of recycled supplies, etc. (Swarbrooke, 1999; Hobson & Essex, 2001). Beri, Thakur and Gupta (2020) assert that human resource management practices that are eco-friendly will advance environmental services

Social Sustainability

The complexities associated with giving a thorough elucidation on the meaning of society, culture and community has given numerous meaning to social sustainability. However, Saeed, Afsar, Hafeez, Khan, Tahir and Tahir (2019) summarily, elucidates that social sustainability is the manner people interrelate communally with their interactions, behavioral disposition, and ethics. Roberts and Tribe (2008) corroborates that social sustainability is saddled with the social collaboration, associations, behavioral configurations and ethics or ideals amongst people in a society On the foregoing, Saeed et al. (2019) orate that for business organizations to enjoy sustainability, as a matter of necessity they must uphold a cordial affiliation and mutual respect for their host communities, include natives, and put into perspective the significance of customs, traditions and culture in their experiences and practices. Amrutha and Geetha (2020) in stressing the potentials of social sustainability stipulates that the prospect of green practices is engraved in accomplishing the objectives of the organization's social sustainability.

Green HR Involvement and Organizational Sustainability

In the analysis of extant literature, the influence of green HRM on organizational effectiveness cannot be overemphasized. To this end, Myilswamy and Gayatri (2014) assert that, employee involvement in the course of green HRM in the organizations was discovered to be essential to be evaluated, as employee green involvement is a pointer of organizational efficiency.

Organizational sustainability and eco-friendly HRM practices highlighted the green behavior of employees (Sohaib & Zubair, 2019). The research work on employee's perception towards green HRM initiatives measured the involvement of employees and their contribution in the case of green HRM practices (Swagato *et al.,* 2022). The findings of this research mostly reinforced the fundamental facts that workers are concerned with both individual role and organizational role in the green initiatives in executing green HRM policy in the organization (Rajput & Pachauri, 2018).

Diverse categories of management strategies adopted by the organizations in another study was discussed which made an attempt to add to the evolving field of green management of the organizations and the sustainable development of the stakeholders (Loknath & Azeem, 2017). Green HRM practices is established to be the means of promoting corporate social responsibility (Chowdhury, Sanju & Asaduzzaman, 2017).

Strategic implementation of green HRM practices in Kolhapur-based industries was emphasized in a study (Swagato *et al.,* 2022). The study chiefly emphasized on green HRM initiatives by manufacturing industries and to ascertain the responsiveness among the workers with respect to Green HRM practices (Menon, 2016). It was acknowledged that the green HRM generates a sense of motivation

and dependability among workers towards the organizations' sustainability goal (Das, 2016).

The aftermath of these works gives room for this study as it is geared towards investigating the relationship between Green Human Resource Involvement and Organizational Sustainability of Quoted Manufacturing Companies in South-South Nigeria. Therefore, this study hypothesizes as follows:

Ho_1: There is no significant relationship between Green HR Involvement and Economic sustainability of Quoted Manufacturing Companies in South-South Nigeria?

Ho_2: There is no significant relationship between Green HR Involvement and Environmental sustainability of Quoted Manufacturing Companies in South-South Nigeria?

Ho_3: There is no significant relationship between Green HR Involvement and Social sustainability of Quoted Manufacturing Companies in South-South Nigeria?

Methodology

This study adopted a cross-sectional survey method, which generated data at a specific point in time. The focus of the study was on Directors and managers at different cadre in 12 manufacturing companies quoted in the Nigerian Stock Exchange. For the unit of analysis, the study was carried out at the macro-level. Primary data for this research was obtained using structured questionnaire instrument. The questionnaire was designed to generate data which addressed the variables of the study. The questionnaire was structured into two main sub-sections. Each variable is to be measured using suitable and accepted models and indicators with each scaled on the 5-Likert scale.

The validity of the questionnaire was verified using the content validity technique, and the reliability of the instrument was determined using the Cronbach Alpha coefficient. All the items recorded above 0.70. For a test of the scale's reliability, the following Cronbach's alpha coefficients were obtained: Green Involvement (0.904), Economic Sustainability (0.885), Social Sustainability (0.796), and Environment Sustainability (0.871). Following Nunally's (1978) model, which suggests a benchmark of 0.70, The result revealed that all instruments adopted have strong levels of clarity and precision in addressing the concepts of the study. As shown below:

Table 1: Reliability results

Variables	Dimensions/Measures	Items on Scale	Reliability coif.
	Green HR Involvement	7	0.904
Organizational Sustainability	Economic Sustainability	3	0.885
	Social Sustainability	4	0.796
	Environment Sustainability	5	0.871

Source: Survey result, 2023

Results

Initially, 120 (100%) questionnaire copies were distributed, and in accordance with the sample size for the research, 112 (93%) copies were successfully recovered. However, after the cleaning and the assessment for error on the recovered copies, all 112 (93%) copies were deemed acceptable in the analysis of the study. 8 copies were not retrieved from the field owing to the fact that some staff could not complete theirs; nevertheless, all recovered copies were used in the study. As such an aggregate of 112 copies of the questionnaire were considered as appropriate and thus used in the research.

Table 2: Green HR Involvement and Organizational Sustainability

			Green HR Involvement	Economic Sust.	Social Sust.	Environment Sust.
Spearman's rho	Green HR Involvement	Correlation Coefficient	1.000	.894**	.825**	.771**
		Sig. (2-tailed)	.	.000	.000	.000
		N	112	112	112	112
	Economic	Correlation Coefficient	.894**	1.000	.850**	.786**
		Sig. (2-tailed)	.000	.	.000	.000
		N	112	112	112	112
	Social Sust.	Correlation Coefficient	.825**	.850**	1.000	.786**
		Sig. (2-tailed)	.000	.000	.	.000
		N	112	112	112	112
	Environment	Correlation Coefficient	.771**	.786**	.786**	1.000
		Sig. (2-tailed)	.000	.000	.000	.
		N	112	112	112	112

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Survey result, 2023

The result on the test for the relationship between green involvement and the measures of organizational sustainability as presented on the table 4.9 reveals positive associations between green involvement and the measures of organizational sustainability.

The first test which assessed viability of the statement of no significant relationship between green involvement and economic sustainability, revealed a significant and positive relationship where rho = 0.894 and P = 0.000. The null hypothesis was rejected based on the evidence presented.

The second test which assessed viability of the statement of no significant relationship between green involvement and social sustainability, revealed a significant and positive relationship where rho = 0.825 and P = 0.000. The null hypothesis was rejected based on the evidence presented.

The third test which assessed viability of the statement of no significant relationship between green involvement and environmental sustainability, revealed a significant and positive relationship where rho = 0.771 and P = 0.000. The null hypothesis was rejected based on the evidence presented.

In line with the evidence generated from the analysis, related null hypothetical statements linked to the assessment for the relationship between green involvement and the measures of organizational sustainability were all rejected. Results point to significant as well as positive relationships in all three instances. Thus, the following results are stated:

There is a significant relationship between green involvement and economic sustainability of Quoted Manufacturing Companies in South-South Nigeria.

There is a significant relationship between green involvement and social sustainability of Quoted Manufacturing Companies in South-South Nigeria.

There is significant relationship between green involvement and environmental sustainability of Quoted Manufacturing Companies in South-South Nigeria.

Discussion of the Findings

In line with the observed impact of green involvement on organizational sustainability, it could be argued that while green involvement might not directly influence employee work outcomes, but rather it does this through the virtue of social and psychological processes (Jiang *et al.*, 2012). A recent green HRM review by Renwick et al. (2013) identified a lack of understanding of the linking mechanisms between employee participation in environmental initiatives and organizational and employee outcomes as a major literature gap. This study explored the mediation of psychological green climate in the green HRM–employee workplace green behavior relationship, a mediation path that has not been previously studied. Psychological climate is the individual-level perceptions of the work environment (Burke *et al.*, 2002). Although somewhat related, psychological climate and culture are different constructs, with culture being a more stable, deep, and long-term construct than climate (Ashkanasy, 2007).

The behavioral HRM literature recognizes that HRM may not directly affect employee behavior; rather, its influence is transmitted through various underlying mechanisms (Jiang *et al.*, 2012). In this study, we proposed that psychological climate is a social and psychological process through which green HRM influences employee workplace green behavior. Psychological climate captures "individual perceptions of work environment characteristics" (Burke *et al.*, 2002) or "employees' perceptions of their organizations" (Patterson *et al.*, 2005). Green climate has been described in the literature as the climate that applies to corporations that achieve sustainable objectives by implementing a range of pro-environmental policies (Chou, 2014; Norton *et al.*, 2014; Paillé *et al.*, 2014; Ramus, 2002). Psychological green climate, therefore, is the perception an individual has of the organization's pro-environmental policies, processes, and practices that reflect the organization's green values.

Conclusion and Recommendations

The findings and as such position of this research on the relationship between green human resource Involvement and organizational sustainability is a positive one and as such identifies green Involvement as an imperative for improved outcomes of organizational sustainability within the context of manufacturing firms in South-south Nigeria. Thus, the study recommends that the management of the manufacturing firms in South-south Nigeria should establish and maintain leadership frameworks that are inclusive, participative and also allow for increased contributions and green involvement from the workers.

References

Ahmad, S. (2015). Green Human Resource Management: Policies and practices. *Cogent Business and Management, 2(1),* 1–13.

Alhaddi, H. (2015). Triple Bottom Line and Sustainability: A Literature Review. *Bus. Manag. Stud., 1,* 6.

Almada, L. & Borges, R. (2018). Artigo recebido em 30.10.2017. Última versão recebida em 26.01. *Rac, Rio de Janeiro, 22(3),* 424–442.

Amrutha, V. N., & Geetha, S. N. (2020). A systematic review on green human resource 1207 Journal of Positive School Psychology management: Implications for social sustainability. *Journal of Cleaner Production, 247*, 119-131.

Ashkanasy, N. M. (2007). Organizational climate. In S. R. Clegg & J. R. Bailey (Eds.), *International Encyclopedia of Organization S*tudies*, 3,* 1028–1030.

Barbier, E.B. (2007). Frontiers and sustainable economic development. *Environmental and Resource Economics, 37(1),* 271-295.

Beri, K., Thakur, P., & Gupta, G. (2020). Green Human Resource Management Review on Methodology. *Journal of Critical Reviews,* 1340–1343.

Bhandari, D. (2017). Effect of Industrialization on Environment (Indian Scenario) Commerce Medical Science Effect of Industrialization on Environment (Indian Scenario) Ms. Deepika Bhandari Dr. Rakesh Kumar Assistant Professor, Department of Forensic Science, Institute. *Global Journal for Research Analisis, 4(12),* 1–3.

Burke, M.J., Borucki, C.C. & Kaufman, J.D. (2002). Contemporary perspectives on the study of psychological climate: A commentary. *European Journal of Work and Organizational Psy-*

chology, 11(3), 325–340.
Chou, C.J. (2014). Hotels' environmental policies and employee personal environmental beliefs: Interactions and outcomes. *Tourism Management, 40,* 436–446.
Chowdhury, S. R., Sanju, N. L., & Asaduzzaman, A. K. M. (2017). Green HRM practices as a means of promoting CSR: Suggestions for garments industry in Bangladesh. *Global Journal of Management and Business Research, 17*(6), 29–35.
Colwell, S.R. & Joshi, A.W. (2011). Corporate Ecological Responsiveness: Antecedent Effects of Institutional Pressure and Top Management Commitment and Their Impact on Organizational Performance. *Bus. Strat. Environ., 22,* 73–91.
Daily, B. F. & Huang, S. (2011). Achieving sustainability through attention to human resource factors in environmental management. *International Journal of Operation and Production Management*, 1539-1552.
Das, S. & Science, R.S.K. (2016). Green HRM and organizational sustainability: an empirical review. Researchgate.Net, October. https://www.researchgate.net/ profile/Sudhir-ChandraDas/ publication/320686237_Green_HRM_and_ Organizational_Sustainability_An_E mpirical_Review/links/59f45ca145851554 7c2083e7/Green-HRM-andOrganizational-Sustainability-AnEmpirical-Review.pdf
Delmas, M.A. & Burbano, V.C. (2011). The Drivers of Greenwashing. *Calif. Manag. Rev., 54,* 64–87.
Dissanayake, D., Tilt, C. & Xydias-Lobo, M. (2016). Sustainability reporting by publicly listed companies in Sri Lanka. *J. Clean. Prod., 129,* 169–182.
Donaldson, T. & Preston L. E. (1995). The stakeholder theory of the corporation: Concepts, evidence and implications. *Academy of Management Review, 20,* 65-92.
Font, X. & Harris, C. (2004). Rethinking standards from green to sustainable. *Annals of Tourism Research, 31(4),* 986-1007.
Guerci, M. & Carollo, L. (2015). A paradox view on green human resource management: Insights from the Italian context. *Int. J. Hum. Resour. Manag., 27,* 212–238.
Guerci, M., Longoni, A., & Luzzini, D. (2016). Translating stakeholder pressures into environmental performance-the mediating role of green HRM practices. *The International Journal of Human Resource Management, 27(2),* 262-289.
Hobson, K., & Essex, S. (2001). Sustainable tourism: A view from accommodation businesses. *The Service Industrial Journal*, *21*(4), 133-146.
Hunt, S.D. (2011). Sustainable marketing, equity, and economic growth: a resource-advantage, economic freedom approach. *Journal of the Academy of Marketing Science, 39(1),* 7-20.
Jamal, T., Zahid, M., Martins, J.M., Mata, M.N., Rahman, H.U. & Mata, P.N. (2021). Perceived Green Human Resource Management Practices and Corporate Sustainability: Multi group Analysis and Major Industries Perspectives. *Sustainability, 13,* 3045.
Järlström, M., Saru, E. & Vanhala, S. (2018). Sustainable Human Resource Management with Salience of Stakeholders: A Top Management Perspective. *J. Bus. Ethic*, 152, 703–724.
Jayashree, M. (2019). "GREEN HRM" *–A Road Map to Sustainability. 6(1),* 195–202.
Jiang, K., Lepak, D.P., Hu, J. & Baer, J.C. (2012). How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms. *Academy of Management Journal,* 55(6), 1264–1294.
Kernel, P. (2005). Creating and implementing a model for sustainable development in tourism enterprises, *Journal of Cleaner Production*, *13(9),* 151-164.
Knowles, T., Macmillan, S., Palmer, J., Grabowski, P. & Hashimoto, A. (1999). The development of environmental initiatives in Tourism: Responses from the London Hotel Sector, *International Journal of Tourism Research*, *1(11),* 255-265.
Landrum, N.E. & Edwards, S. (2009). Sustainable Business: An Executive's Primer, New York: Business Expert Press.
Loknath, Y. & Azeem, B. A. (2017). *Green Management – Concept and Strategies*. 688–702.
Madan, S. (2016). GREEN HRM: A Requirement for 21st Century. *International Journal of Engineering and Management Research, 4,* 239–243.

Menon, B. N. (2016). A study of Green HR Practices and Strategic Implementation in Indian Streams. March.
Meyer, K.E., Estrin, S., Bhaumik, S.K. & Peng, M.W. (2008). Institutions, resources, and entry strategies in emerging economies. *Strateg. Manag. J.*, 30, 1–43.
Middleton, V. T. & Hawkins, R. (1998). Sustainable tourism: A marketing perspective, Routledge.
Moneva, J.M. & Pajares, J.H. (2018). Corporate social responsibility performance and sustainability reporting in SMEs: An analysis of owner-managers' perceptions. *Int. J. Sustain. Econ.*, 10, 405.
Myilswamy, N. P., & Gayatri, R. (2014). A Study on Employee Engagement : Role of Employee Engagement in Organizational Effectiveness. *International Journal of Innovative Science, Engineering and Technology, 1(6),* 331–333.
Neeraja, M. & D. B. (2018). Green HRM & Organizational Effectiveness : *An Empirical Study. 6 (2),* 417–421.
Norton, T. A., Zacher, H., & Ashkanasy, N. M. (2014). Organizational sustainability policies and employee green behavior: The mediating role of work climate perceptions. *Journal of Environmental Psychology,* 38, 49–54.
O'Donohue, W. & Torugsa, N. (Ann) (2015). The moderating effect of 'Green' HRM on the association between proactive environmental management and financial performance in small firms. *Int. J. Hum. Resour. Manag. 27,* 239–261.
Paille, P., Chen, Y., Boiral, O. & Jin, J.F. (2014). The Impact of Human Resource Management on Environmental Performance: An Employee-Level Study, *Journal of Business ethics,* 121(3), 451–466.
Patterson, M.G., West, M.A., Shackleton, V.J., Dawson, J.F., Lawthom, R., Maitlis, S. & Wallace, A.M. (2005). Validating the organizational climate measure: Links to managerial practices, productivity and innovation. *Journal of Organizational Behavior,* 26(4), 379–408.
Rajput, S. & Pachauri, V. (2018). A study of employees' perception towards green HRM initiatives. International Journal of Academic Research and Development, 3(2), 807–810. www.academicsjournal.com
Ramus, C.A. (2002). Encouraging innovative environmental actions: What companies and managers must do. *Journal of World Business,* 37(2), 151–164.
Renwick, D. W. S., Redman, T., & Maguire, S. (2013). Green human resource management: A review and research agenda. *International Journal of Management Reviews,* 15(1), 1–14.
Roberts, S. & Tribe, J. (2008). Sustainability indicators for small tourism enterprises: An exploratory perspective, *Journal of Sustainable Tourism, 16(5),* 575-594.
Saeed, B.B., Afsar, B., Hafeez, S., Khan, I., Tahir, M. & Tahir, M.A. (2019). Promoting employee's pro-environmental behavior through green human resource management practices. *Corp. Soc. Responsib. Environ. Manag.*, 26, 424–438.
Sahoo, M. & Sethi, N. (2020). Impact of industrialization, urbanization, and financial development on energy consumption: Empirical evidence from India. *Journal of Public Affairs, 20(3).*
Schaltegger, S. & Burritt, R.L. (2018). Business Cases and Corporate Engagement with Sustainability: Differentiating Ethical Motivations. *J. Bus. Ethic*, 147, 241–259.
Sohaib S.K. & Zubair, M. A. (2019). Sustainable development: The role of green HRM. *International Journal of Research in Human Resource Management, 1(2)*.
Swagato Roy Chowdhury, Arindam Ghosh & Saileswar Ghosh (2022). Employee Involvement with Green Human Resource Management Policies and Practices in Manufacturing Units: A Descriptive Study. *Journal of Positive School Psychology, Vol. 6(9),* 1196-1208.
Tahir, M., Safwan, N., Usman, A. & Adnan, A. (2020). Green HRM as predictor of firms' environmental performance and role of employees' environmental organizational citizenship behavior as a mediator. *J. Res. Rev. Soc. Sci.*, 3, 699–715.
Tamunomiebi, M.D. & Mezeh, A.A. (2022). Green human resource management and corporate sustainability of oil and gas companies in Port-Harcourt, Nigeria. *Saudi J. Bus. Manag. Stud.*, 7, 78–89.
Varsei, M., Soosay, C., Fahimnia, B., & Sarkis, J. (2014). Framing sustainability performance of

supply chains with multidimensional indicators. *Supply Chain Management, 19(3), 242-257.*
Zibarras, L.D. & Coan, P. (2015). HRM practices used to promote pro-environmental behavior: A UK survey. *Int. J. Hum. Resour. Manag.*, 26, 2121–2142.

HR Competence Management and Organisational Sustainability of Deposit Money Banks in Rivers State

Ehule Fortune Nsirim
Department of Industrial Relations/ Human Resource Management,
Faculty of Management Sciences, Rivers State University, Port Harcourt, Nigeria.
nnemi4tunate@yahoo.com
Sunday Owhorji PhD
Department of Management, Faculty of Management Sciences,
Rivers State University, Port Harcourt, Nigeria.
sunday.owhorji@ust.edu.ng

Abstract
This study investigated the relationship between HR competence management and organisational sustainability of deposit Money Banks in Rivers State. The study adopted the cross-sectional survey in its investigation of the variables. Primary data was generated through structured questionnaire. The population of this study was the 22 Deposit Money Banks in Nigeria and the entire population of Deposit Money Banks was adopted as a census. However, the respondents/ participants in the study were sixty-six (66) Regional Managers of the 22 deposit money banks. The reliability of the instrument was achieved by the use of the Cronbach Alpha coefficient with all the items scoring above 0.70 from a pilot survey of twelve (12) respondents. The hypotheses were tested using the Spearman's Rank Order Correlation Coefficient. The tests were carried out at a 0.05 significance level. Findings from the study revealed that there is a significant relationship between HR competence management and organisational sustainability of deposit Money Banks in Rivers State. The study concludes that HR competence management significantly relate with organizational sustainability of Deposit Money Banks in Rivers State. Implying that when Deposit Money Banks adopt HR competence management it positively fosters organizational sustainability. The study therefore recommends that Deposit Money Banks should enhance the competence planning processes by conducting regular assessments of the organization's current and future competency needs. This involves identifying the key competencies required to achieve organizational goals, forecasting future skill requirements, and developing strategies to fill competency gaps.
Keywords: HR competence management, organisational sustainability, Competence Planning, Competence Development

Introduction

A crucial component of organizational sustainability is HR Competence Management. Organizations must make sure that their staff members have the skills and information needed to satisfy the constantly changing needs of the market in today's fiercely competitive and dynamic business climate. Organizations can accomplish this by enhancing overall productivity, lowering turnover rates, and improving employee performance via effective HR Competence Management. The process of identifying, developing, and maintaining the skills, knowledge, and abilities that people within an organization need in order to accomplish business goals is referred to as HR competency management.

Karwehl and Kauffeld (2021) contend that HR competency management is essential to a company's performance because it helps the business to recognize and cultivate the skills and competences required to meet strategic objectives. Employees' present skills and competences are evaluated as part of the process, gaps are found, and training and development programs are offered to close those gaps. The main objective of HR competency management is to make sure that workers have the knowledge and abilities required to do their jobs successfully, which in turn helps the organization succeed as a whole.

Additionally, HR competency management is essential for fostering employee engagement because it gives workers chances to advance in their positions. This may result in greater motivation and job satisfaction, which in turn may boost output and produce better financial results. In conclusion, HR competency management is a crucial procedure that helps businesses to recognize and develop the abilities and skills required to meet their goals while also promoting employee engagement and happiness.

An essential component of organizational sustainability is competency management. The process of recognizing, learning, and growing the knowledge, skills, and abilities required to fulfill corporate goals is referred to as competence management, according to Berényi (2012). Organizations may guarantee that their staff members have the skills needed to carry out their responsibilities proficiently, reduce errors, and boost productivity by putting in place an efficient competence manage-

ment system.
Competence management may also assist firms in adjusting to changes in the business environment and maintaining their competitiveness. Organizations that don't build and retain the requisite capabilities run the risk of slipping behind their rivals and ultimately going out of business, as noted by Berényi (2012). Additionally, competency management can aid in employee retention because people are more willing to stick with a company that supports their growth. In conclusion, competence management is a crucial tool for businesses looking to achieve long-term success.
The success of an organization depends on the management of human resources' (HR) competencies. Leinweber (2013) defines HR competency management as the process of determining and enhancing individuals' talents, knowledge, and skills to satisfy organizational needs. Organizations can employ a number of ways to efficiently manage HR competency. In order to determine the present abilities and knowledge of its personnel and to pinpoint areas for improvement, organizations should first carry out a competency assessment. Performance evaluations, self-evaluations, and peer assessments can all be used to accomplish this.
Second, firms want to develop a competency framework that specifies the abilities and information needed for every position within the company. This framework needs to be evaluated and changed frequently to stay current with the organization's changing demands. Thirdly, businesses should spend money on training and development initiatives to provide staff members the information and skills they need to do their jobs well. These courses may also include coaching, mentoring, and on-the-job training.
Finally, businesses should provide staff member's chances to use their newly acquired skills and knowledge by putting them to use in cross-functional teams, special initiatives, and job rotations. By putting these ideas into practice, organizations can manage HR competency efficiently and make sure the right people with the right skills are in the right roles to help them achieve their strategic objectives.
The management of HR expertise is essential to guaranteeing organizational sustainability. Organizations may construct a strong workforce and experience long-term success by finding, training, and keeping competent personnel. Assessing the abilities and expertise needed for each position, offering chances for learning and growth, and ensuring that personnel are in line with the company's objectives and values are all components of effective HR competence management. Organizations may promote a culture of continuous learning and improvement that fosters creativity and success by investing in the growth and development of their workers. HR competency management is ultimately a strategic necessity for firms that wish to succeed in the cutthroat commercial environment of today.

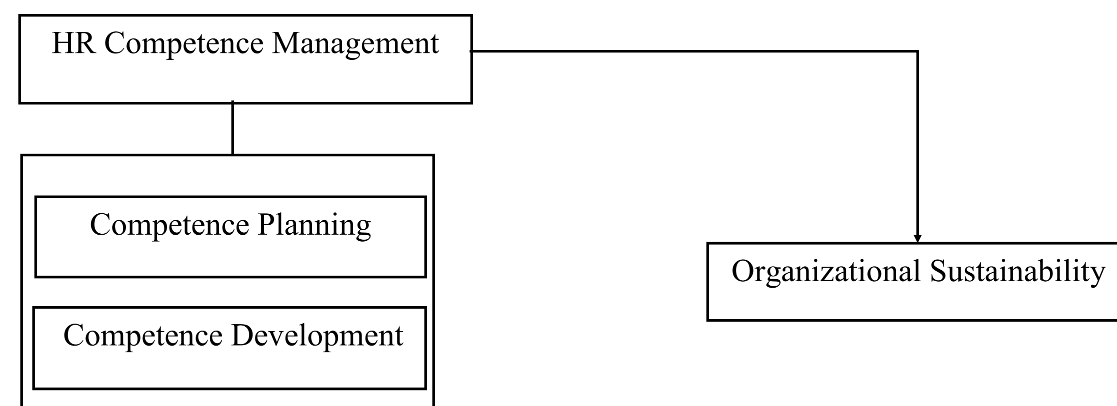


Fig. 1: Conceptual framework showing HR competence management and organizational sustainability
Source: Researcher's Conceptualization, 2023.

The purpose of this study is to examine the relationship between HR competence management and

organizational sustainability of deposit money banks in Rivers State.
The specific objectives of the study are to:
Access the relationship between competence planning and organisational sustainability of deposit Money Banks in Rivers State

Examine the relationship between competence development and organisational sustainability of deposit Money Banks in Rivers State.

Based on the foregoing, the study tests the following hypotheses:
Ho_1: There is no significant relationship between competence planning and organisational sustainability of deposit Money Banks in Rivers State.
Ho_2: There is no significant relationship between competence development and organisational sustainability of deposit Money Banks in Rivers State.

Literature Review
Theoretical Review: Resource-Based View (RBV) Theory
According to Barney (2011), the theory of the resource-based view best describes how businesses can gain a competitive advantage and boost output. According to the RBV hypothesis, an organization's organizational resources are the most important variables affecting its performance and competitiveness. For the advantage of their internal operations and continuous survival, organizations must integrate their resources—their primary capabilities—according to the thesis (Shivaraj & Vijayakumara, 2015).

According to the basic principles of the RBV theory, organizations must determine which of their most significant potential resources fit the VRIN (Valuable, Rare, In-imitable, and Non-substitutable) standards. A resource must be valued for a business to employ a value-creating strategy by outperforming competitors or addressing internal issues (Barney, 1991; Amit & Schoemaker, 1993). From this perspective, it is relevant to note the assertion that the transaction costs associated with purchasing the resource cannot exceed the discounted future rents that arise from the value-creating strategy (Mahoney & Pandian, 1992; Conner, 1992). Rare: A resource must be scarce by definition to be valued. In a completely competitive strategic factor market for that resource, the price of the resource will represent the projected discounted future above-average returns (Barney, 1986a; Dierickx & Cool, 1989).

A business may gain a competitive edge if it has sole control of a valued resource (Barney, 1991). This advantage might hold up over time if competitors are unable to fully replicate this strategic asset (Peteraf, 1993; Barney, 1986). According to Rumelt (1984) a "isolating mechanism" prohibits businesses from successfully competing with the company that owns the valuable resource (Peteraf, 1993; Mahoney & Pandian, 1992) by copying a resource to the point that it may be successfully imitated.

The key element of the Resource Based View (RBV) as a foundation for a firm's competitive advantage is the utilization of a collection of priceless tangible or intangible resources at the firm's disposal (Wernerfelt, 1984; Rumelt, 1984; Penrose, 1959). To transform a transient competitive advantage into a long-term competitive advantage, these resources must be varied in nature and not perfectly transferable (Peteraf, 1993). This essentially converts into priceless resources that require a lot of work to fully duplicate or completely replace (Barney, 1991). If these conditions persist, the company's above-average profits can be supported by the collection of resources.

When researching HR competency management and organizational sustainability, the resource-based view (RBV) hypothesis is very important. Understanding how a firm's distinctive assets and skills contribute to its competitive advantage and long-term viability is a key goal of the RBV theory. Understanding the strategic significance of HR competency management and its effect on organizational sustainability is made possible by the RBV theory. Recognizing HR talents as significant

resources enables firms to use them to develop dynamic capabilities for long-term success, connect HR practices with strategic goals, and build sustainable competitive advantages.

Concept of HR Competence Management

Providing an organization with a time- and resource-accurate charted representation of its members' existing competencies appears to be the primary objective of competence management thinking. This information can be used, for instance, to assess how well the members' competencies correspond to the competence requirements of the organization's current needs or positions (Lindgren, 2002). According to Heinsman, de Hoogh, Koopman, and van Muijen (2006), competence management is an essential human resource instrument that is frequently used within organizations to guide human resource practices such as selection, assessment, career management, employee development, and performance evaluation. In addition, Lekshmi and Radhika (2016) defined competence management as a comprehensive human resource strategy that identifies and develops the most relevant competencies to facilitate peak employee and organizational performance, including the identification of critical knowledge, skill, and attitude that an employee must possess to perform his role effectively.

Competence management encompasses the policies and practices that identify, align, and optimise worker job roles through the management of skills, knowledge, and abilities to improve organisational performance. It is the process of identifying, aligning, and optimizing worker job roles, skill, knowledge, and ability in order to improve an organization's performance. Competency management provides the foundation for workforce planning, talent recruitment, selection, and employment, and career progression and development for employees. It is therefore the foundation for developing and maintaining a high-performing workforce. First and foremost, competency management ensures that organizations have the appropriate individuals with the right skills to perform the necessary job duties. Competence management is a practice that is becoming increasingly important in both private and public organizations, allowing them to attract and develop talented employees, identify the right person for the job, and perform succession planning, training analysis, among other core human resource (HR) functions (Draganidis & Mentzas, 2006).

According to Zeb-Obipi (2007), competence management is the process of administering the competencies of an organization's employees to attain superior performance. Moreover, competence management activities are centered on the expertise level of workers in a given position and, as such, entail the management of the workers' skills, knowledge, and abilities in relation to their work activities. It also aims to enable employees and their organizations to enhance their performance in terms of efficacy and efficiency, which could manifest itself in terms of productivity, financial performance, and strategic performance (Zeb-Obipi, 2007).

Competence Planning

Identification, development, and retention of workers' skills and knowledge in order to achieve organizational objectives are all part of competency planning, a critical component of human resource management (Capece and Bazzica). Assessing the knowledge and skills that workers currently possess, determining the knowledge and skills that are necessary to accomplish organizational objectives, and establishing measures to close the knowledge and skill gap are all parts of competency planning. Competency planning is a multi-stage process that includes establishing work responsibilities, determining the abilities necessary for each task, evaluating individuals' present competencies, and creating plans to fill in any competency gaps.

The ultimate aim of competency planning is to ensure that the organization has the appropriate people, with the right abilities, in the right places, at the right times, to accomplish its goals and objectives (Capece and Bazzica). Competence planning is even more important in today's quickly evolving business environment as organizations try to stay up with the rate of technological advancement and globalization. Organizations may identify and develop the skills and knowledge necessary to maintain competitiveness and achieve long-term success with the support of effective competency

planning.

Since it helps organizations to pinpoint the knowledge and abilities necessary to accomplish their goals, competency planning is an essential component of organizational success (Nuthall 2006). Developing solutions to close gaps between workers' present abilities and those that are needed is part of competency planning. This procedure makes sure that workers gain the skills they need to do their jobs more efficiently, which boosts production and improves organizational performance. By defining the abilities that will be required in the future and creating strategies to acquire them, competency planning also assists organizations in achieving their long-term goals. This procedure is crucial in fields that are always changing, like technology, where new abilities are required to stay competitive.

The fact that competency planning may assist organizations in lowering expenses related to recruiting, training, and turnover emphasizes the significance of this process even more. Organizations may engage in training and development programmers to help their present workforce achieve the abilities they require, hence lowering the need to recruit new workers, by identifying the competences that employees need to succeed. Overall, competency planning is essential for organizational success, and businesses that give it top priority often outperform their rivals.

Competence Development

A critical component of both personal and professional progress is the development of competence. Competence development, according to Berestova, Gayfullina, and Tikhomirov (2020), is the process of gaining and enhancing the knowledge, abilities, and attitudes required for successful performance in a given sector. For those who wish to stay competitive and relevant in the ever-changing work market, this process is crucial. It is critical to stay current with trends and advancements in one's industry in today's fast-paced, technologically advanced world. People who wish to grow their professions, boost their earning potential, and stay competitive must constantly learn new things and acquire new talents.

Additionally, competence development is crucial for both personal and job progress. Learning new things and developing new talents may help people become more creative, more confident, and better at solving problems. In order to remain relevant, competitive, and happy in both their personal and professional lives, people should prioritise competence development as a lifelong process.

It is impossible to emphasise the value of developing HR competencies in contemporary settings. The HR department has changed from a transactional administrative role to a strategic business partner, necessitating a new set of capabilities, as Rodriguez, Patel, and Bright (2002:47) noted. The work of HR professionals has changed as a consequence of the shifting demands of organisations; they are now expected to take a more strategic and futuristic approach. They must thus have a broad variety of talents, including but not limited to commercial acumen, leadership aptitude, and the capacity to successfully manage change.

HR practitioners must also be able to bridge cultural differences and collaborate productively with employees from various backgrounds as organisations grow increasingly global and varied. To ensure that their HR professionals have the abilities and information required to flourish in their professions and contribute to the success of the organisation as a whole, organisations must engage in HR competence development programmes that include training and assistance. In the end, building HR expertise is crucial for organisations to keep a competitive advantage in a market that is changing quickly.

The growth of human resource competency is essential for organisational success. Training and development initiatives are a crucial component of HR competency development strategy. These programmes, according to Lawson and Limbrick (1996), are designed to help HR professionals get better knowledge, skills, and abilities, which in turn improves their capacity to carry out their jobs successfully. The authors also recommend that these programmes be customised to the particular requirements of the organisation and the workforce.

Mentoring and coaching are another method for developing competence. This entails matching up novice HR workers with mentors or coaches who have expertise and can provide advice and assistance as they manoeuvre in responsibilities. The value of feedback and ongoing learning is emphasised by the writers. Another strategy for enhancing HR competency is job rotation. To better understand the company as a whole, this entails shifting personnel across various HR departments. Finally, performance management systems should be used to assess how well HR competence development methods are working.

HR competence development programmes are crucial to advancing the skills and knowledge of HR professionals in the fast-paced corporate world of today. To make sure that these programmes are achieving the anticipated results, it is essential to assess their efficacy. Ulrich (1997) asserts that HR directors should concentrate on the four levels of assessment to gauge the success of HR competence development initiatives. Reaction is the initial stage, when feedback on the program's content, organisation, and delivery is gathered from participants. The participants' knowledge, abilities, and attitudes are evaluated at the second stage of learning, which is called learning.

The third level, behaviour, evaluates how students apply what they have learned to their professional tasks. Results, the fourth and final stage, gauges how the programme has affected company outcomes including staff retention, engagement, and productivity. The efficacy of these programmes may be increased by HR leaders identifying areas for improvement and making data-driven choices. This is done by reviewing HR competence development programmes at all four levels.

Concept of Organizational Sustainability

The idea of organisational sustainability has attracted a lot of attention recently as businesses and organisations with their stakeholders focus on these crucial sustainability issues, which include the economic, environmental, and social dimensions of sustainability. According to Bhatia and Tuli (2016), the 1987 Brundtland Report served as the foundation for this idea. As a result, it highlighted the need or significance of moving forward with economic growth that could be maintained without depleting natural resources or causing harm to and harming the environment (Gallo & Christensen, 2014).

Sustainable development, according to Lopatta, Buchholz and Kaspereit (2017) and Zahid and Ghazali (2015), is a notion of organisational sustainability practises that ensures a company's long-term existence and financial performance. In order to provide improved living and working conditions now, resources must be used in a balanced manner while taking into account current economic, social, and environmental concerns (Ongisoh, The, & Ng, 2016). According to Wilson (2003), an examination of the literature indicates that the idea of organisational sustainability has features in common with four other, more well-known ideas: sustainable development, corporate social responsibility, stakeholders' theory, and corporate accountability theory.

Organisational sustainability management, on the other hand, is a profit-driven business reaction to environmental and social concerns brought on by the main and secondary activities of the organisation, according to Steger and Lonescus-Somer (2005). As a result, from a larger business standpoint, it is seen as a corporate strategy that builds long-term shareholder value by seizing opportunities and controlling risk associated with societal, environmental, and economic growth (Dow Jones sustainability indexes, 2009).

Additionally, institutional and functional words might be used to characterise organisational sustainability management. The functional approach seeks to influence the ecological, social, and economic effects of corporate operations so that a company grows in a sustainable path. In order to ensure the triple bottom line is managed in a methodical manner and to include them into the traditional company management process. The institutional perspective, on the other hand, describes the group of actors and organisational structure within the business enterprise that are interested in the social and ecological aspects and their integration into the traditional process of operational management of business activities (Schaltegger, Herzig, Weiber & Muller, 2007).

HR Competence Management and Organizational Sustainability

Newman, Thanacoody, and Hui (2011) conducted a study on the effects of talent management on the efficacy of Turkish nongovernmental organisations. The purpose of this study was to determine the impact of employee talent identification, modification, and adoption on the performance of non-governmental organisations in Turkey. The researchers employed an experimental research design and collected data from 230 participants. Deckop et al. (2016) determined that talent management aided organisations in identifying employees who were capable of providing essential skills for the organization's operations, thereby allowing the organisations to work diligently to retain them. (Newman et al., 2011) Talent management enables organisations to achieve a complete, dependable workforce that is more productive and functional, thereby enhancing organisational performance.

Rich, Lepine, and Crawford (2010) conducted a study on the relationship between talent management and the viability of a business. The purpose of the study was to determine the effects of developing youthful talent in South Korean SMEs. The study utilised a case study research design and 109 SMEs as its sample. Rich et al. (2010) discovered that talent management among small and medium-sized enterprises (SMEs) promoted the sustainability of the firms by promoting the ability of employees to surmount managerial skills, thereby enabling the firms to maintain performance levels. According to Rich et al. (2010), the viability of small and medium-sized enterprises is contingent on the entrepreneurs' capabilities and skills.

Hassan, Mehmet, and Demet (2013) conducted a study on the impact of employee training and development on commercial bank performance. The research was conducted in Qatar and targeted licenced commercial banks. The study employed a descriptive research design and surveyed 52 participants. The research According to Hassan et al. (2013), training is one of the most crucial factors in retaining employees in organisations and increasing their productivity. According to Hassan et al. (2013), training employees prepares them to develop and acquire additional skills, which they use to enhance their organisational capabilities and productivity.

Chen (2014) conducted a study on the connection between employee training and organisational performance and sustainability. The purpose of the study was to determine how the skills acquired by employees during training affected the organization's viability. The investigation was conducted in Pakistan using an exploratory research design. The research cohort consisted of 119 respondents from Pakistani manufacturing firms. Chen (2014) demonstrated that training employees equips them with critical and necessary skills that improve their problem-solving and compatibility with organisational issues. According to Chen (2014), employees have the ability to manage organisational matters, but they need periodic training for improved performance to make them even more competent.

Shilder (2010) conducted research on the factors affecting the sustainability of family-owned businesses elsewhere. The purpose of the study was to determine the significance of succession planning, stakeholder engagement, and family issue management. The study utilised a descriptive survey design with a sample size of 215 participants. Shilder (2010) determined that succession planning, in which the founder of the firm identifies the successor and ensures that the necessary steps are taken to make them capable of carrying on the business, was one of the most important factors contributing to the longevity of family-owned businesses.

Methodology

The study adopted the cross-sectional survey in its investigation of the variables. Primary data was generated through structured questionnaire. The population of this study was the 22 Deposit Money Banks in Nigeria and the entire population of Deposit Money Banks was adopted as a census. However, the respondents/ participants in the study were sixty-six (66) Regional Managers of the 22 deposit money banks. The reliability of the instrument was achieved by the use of the Cronbach Alpha coefficient with all the items scoring above 0.70 from a pilot survey of twelve (12) respondents. The hypotheses were tested using the Spearman's Rank Order Correlation Coefficient. The tests were carried out at a 0.05 significance level.

Data analysis and Results

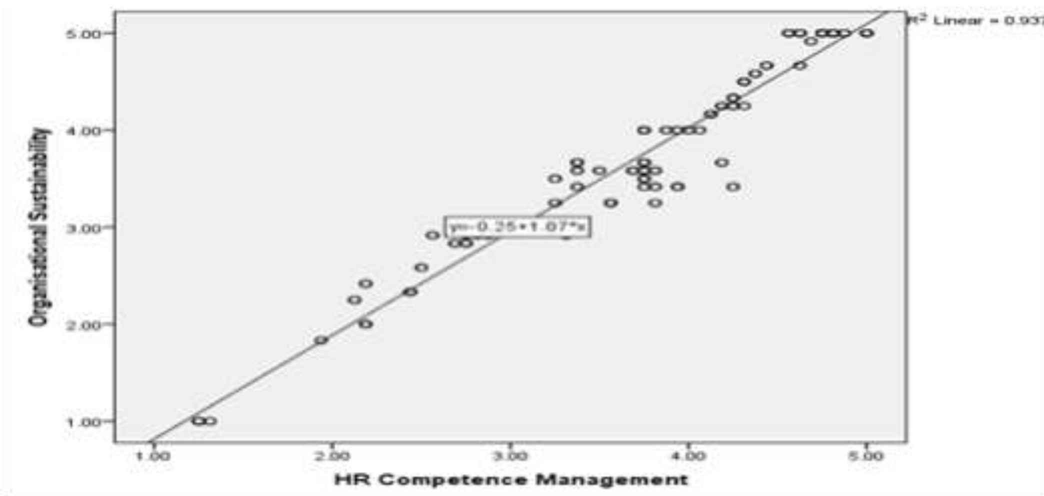


Fig. 1: scatter plot of HR competence management and organisational sustainability.
Source: SPSS version 23.0 Output

Fig. 1 shows a very strong relationship between HR competence management (independent variable) and organisational sustainability (dependent variable). The scatter plot graph shows that at is linear value of (0.937) depicting a very strong and positive relationship between the two constructs. The implication is that an increase in competence management simultaneously brings about an increase in the level of employee resilience.

The scatter diagram has provided vivid evaluation of the closeness of the relationship among the pairs of variables through the nature of their concentration. The positive relationship is evidenced by the pattern of the points moving upwards from left to right. This positive relationship indicates that a higher value of the dependent variable is associated with higher values of the independent variables. The steepness of the regression line roughly indicates the strength of the relationship between the dependent and independent variables. As shown in Figure 1 the scatter plots show a positive gradient which means that HR competence management has a positive relationship with organisational sustainability of deposit Money Banks in Rivers State.

Table 1: Correlation for competence planning and organisational sustainability

			Competence Planning	Organisational Sustainability
Spearman's rho	Competence Planning	Correlation Coefficient	1.000	.864**
		Sig. (2-tailed)	.	.000
		N	66	66
	Organisational Sustainability	Correlation Coefficient	.864**	1.000
		Sig. (2-tailed)	.000	.
		N	66	66

**. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS version 23.0 Output

Table 1 above shows a Spearman Rank Order Correlation Coefficient (rho) of 0.864on the relationship between competence planning and organisational sustainability. This value implies that a very strong relationship exists between the variables. The direction of the relationship indicates that the correlation is positive; implying that an increase in organisational sustainability may be as a result of the adoption of competence planning. Therefore, there is a very strong positive correlation between competence planning and organisational sustainability of deposit Money Banks in Rivers State. Similarly displayed in the Table 1 is the statistical test of significance (p-value) which makes possible the generalization of our findings to the study population. From the result obtained from table 1, the sig- calculated is less than significant level ($p = 0.000 < 0.05$). Therefore, based on this finding the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship competence planning and organisational sustainability of deposit Money Banks in Rivers State.

Table 2: Correlation for competence development and organizational sustainability

			Competence Development	Organisational Sustainability
Spearman's rho	Competence Development	Correlation Coefficient	1.000	.860**
		Sig. (2-tailed)	.	.000
		N	66	66
	Organisational Sustainability	Correlation Coefficient	.860**	1.000
		Sig. (2-tailed)	.000	.
		N	66	66

**. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS version 23.0 Output

Table 2 above shows a Spearman Rank Order Correlation Coefficient (rho) of 0.860 on the relationship between competence development and organisational sustainability. This value implies that a very strong relationship exists between the variables. The direction of the relationship indicates that the correlation is positive; implying that an increase in organisational sustainability may be as a result of the adoption of competence development. Therefore, there is a very strong positive correlation between competence development and organisational sustainability of deposit Money Banks in Rivers State. Similarly displayed in the Table 2 is the statistical test of significance (p-value) which makes possible the generalization of our findings to the study population. From the result obtained from table 1, the sig- calculated is less than significant level ($p = 0.000 < 0.05$). Therefore, based on this finding the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship competence development and organisational sustainability of deposit Money Banks in Rivers State.

Discussion of Findings

The results demonstrated a very strong positive correlation between HR competence management and the organisational sustainability of deposit Money Banks in the state of Rivers. This result is consistent with that of Ekweozor, Omah, and Alalibo (2021), who investigated the relationship between competence management (competence planning, competence development, and competence monitoring as aspects) and organisational alertness in Deposit Money Banks (DMBs) in Rivers State, Nigeria. It was discovered that competence planning, competence development, and competence monitoring have a strong and significant relationship with the organisational vigilance of DMBs in Rivers State, Nigeria.

In addition, the findings of this study corroborate those of Bi et al. (2014), who examined the influence of employee competence on employee responsiveness, concentrating on the role of information technology alignment as a mediator. The research was conducted in China, and the purpose of the paper was to propose a model to investigate how employee competence influences employee responsiveness through information technology alignment. Through alignment of information technology, employee competence has a positive effect on employee responsiveness, as revealed by the data analysis.

Asghari, Salehi, and Niazazan (2018), who examined modelling competency management for employee responsiveness at Tehran's Islamic Azad University, concur with these findings. The correlation between competency management and employee responsiveness was found to be statistically positive and significant. This finding validates the findings of Zeb-Obipi (2007), who examined the relationship between worker competence management and corporate productivity performance in the context of specific manufacturing firms in Nigeria and found that worker competence management has a positive and statistically significant relationship with corporate productivity performance. The findings of this study corroborate the findings of Lengnick-Hall, Beck, and Lengnick-Hall (2011), who conducted research on developing organisational resilience vis-à-vis adaptive capacity via strategic human resource management.

Conclusion and Recommendations

The findings of the study demonstrate a significant and positive correlation between HR competence management and the organizational sustainability of deposit Money Banks in the state of Rivers. The results indicate that effective HR competence management practices contribute to the long-term viability and success of these banks. By aligning HR strategies and practices with organizational goals, deposit Money Banks can develop and leverage their HR competencies to create a competitive advantage and enhance sustainability.

Therefore, the study makes the following recommendations:

Deposit Money Banks should enhance the competence planning processes by conducting regular assessments of the organization's current and future competency needs. This involves identifying the key competencies required to achieve organizational goals, forecasting future skill requirements, and developing strategies to fill competency gaps.

Deposit Money Banks should place a high priority on competence development by allocating sufficient resources, both financial and human, to support ongoing training and skill enhancement initiatives. This involves identifying key competencies required for various roles within the organization and designing development programs to address competency gaps.

References

Amit, R., & Schoemaker, P. J. H. (1993). Strategic assets and organizational rent. *Strategic Management Journal,* 14(1), 33-46.

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management,* 17(1), 99-120.

Barney, J. B. (2011). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of Management*, 27(6), 643-650.

Berényi, L. (2012). Competence Management as a Key Element of Organizational Sustainability. *Journal of Competence-Based Strategic Management,* 6(1), 56-73.

Berestova, T., Gayfullina, A., & Tikhomirov, A. (2020). Competence development as a factor of personal and professional growth. *Journal of Education and Science*, 10(3), 89-96.

Bhatia, S. S., & Tuli, S. (2016). Organizational sustainability: A review. *Journal of Management Development,* 35(3), 365-382.

Proceedings of the 4th Annual International Academic Conference

Capece, G., & Bazzica, P. (2021). Vpassport: a digital architecture to support social restart during the SARS-CoV-2 pandemic. *Sustainability,* 13(7), 3945.

Chen, H. (2014). The effect of employee training on organizational sustainability and performance: A case study of manufacturing firms in Pakistan. *Journal of Economics, Business and Management,* 2(3), 270-274.

Conner, K. R. (1992). A historical comparison of resource-based theory and five schools of thought within industrial organization economics: Do we have a new theory of the firm? *Journal of Management,* 17(1), 121-154.

Deckop, J. R., Mangel, R., & Cirka, C. C. (2016). Getting more than they realized: A study of talent management practices in nonprofit organizations. *Human Resource Management*, 55(6), 955 -979.

Dierickx, I., & Cool, K. (1989). Asset stock accumulation and sustainability of competitive advantage. *Management Science*, 35(12), 1504-1511.

Dow Jones Sustainability Indexes. (2009). Corporate sustainability: Driving performance and adding value. Retrieved from https://www.sustainalytics.com/wp-content/uploads/2019/10/DJSI-White-Paper-Corporate-Sustainability-Driving-Performance-and-Adding-Value.pdf

Draganidis, F., & Mentzas, G. (2006). Competency-based human resource management: A review. *International Journal of Human Resource Management*, 17(1), 1-24.

Gallo, R. M., & Christensen, L. J. (2014). Sustainability reporting and organizational legitimacy: The missing link. *Management Communication Quarterly*, 28(2), 237-264.

Hassan, A., Mehmet, B., & Demet, B. (2013). The impact of training and development on employee performance: A case study of commercial banks in Qatar. *International Journal of Business and Management*, 8(2), 76-86.

Heinsman, M. L., de Hoogh, A. H., Koopman, P. L., & van Muijen, J. J. (2006). The relationship between personnel management practices and organizational performance: Evidence from small businesses. *International Small Business Journal*, 24(5), 529-560.

Karwehl, J., & Kauffeld, S. (2021). HR Competence Management: A Critical Component for Organizational Sustainability. *Journal of Business and Psychology*, 36(4), 629-643.

Lawson, K., & Limbrick, S. (1996). Competence development: What can HRD learn from HRM? *Journal of European Industrial Training*, 20(4), 21-30.

Leinweber, S. (2013). Stage 3: competence management. Strategic human resource development: *A journey in eight stages*, 109-133.

Lekshmi, S. S., & Radhika, K. (2016). Competence management as a human resource strategy: A systematic review. *Global Business Review,* 17(5), 1094-1106.

Lindgren, R. (2002). Competence management: A research overview. *International Journal of Manpower,* 23(5), 416-431.

Lopatta, K., Buchholz, S., & Kaspereit, T. (2017). Business models for sustainable technologies: Exploring business model evolution in the case of electric vehicles. *Journal of Cleaner Production*, 147, 397-409.

Mahoney, J. T., & Pandian, J. R. (1992). The resource-based view within the conversation of strategic management. *Strategic Management Journal*, 13(5), 363-380.

Newman, A., Thanacoody, P. R., & Hui, W. H. (2011). The effects of talent management on organizational performance. *European Journal of International Management*, 5(5), 493-511.

Nuthall, M. (2006). Competence planning in organizations. *Journal of Organizational Excellence*, 25 (2), 21-32.

Ongisoh, H., The, Y. C., & Ng, W. S. (2016). Determinants of organizational sustainability performance in construction firms: An empirical study. *Journal of Cleaner Production,* 112, 1341-1352.

Penrose, E. T. (1959). The theory of the growth of the firm. Oxford University Press.

Peteraf, M. A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal*, 14(3), 179-191.

Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, 53(3), 617-635.

Rodriguez, R., Patel, N., & Bright, J. (2002). The evolving role of HR professionals: Key competencies for success. *Human Resource Management Review,* 12(4), 485-502.

Rumelt, R. P. (1984). Towards a strategic theory of the firm. In R. Lamb (Ed.), *Competitive strategic management* (pp. 556-570). Prentice-Hall.

Schaltegger, S., Herzig, C., Weiber, R., & Muller, K. (2007). Sustainability management beyond corporate boundaries: From stakeholders to performance. *Journal of Cleaner Production*, 15 (6), 577-590.

Shivaraj, B., & Vijayakumara, G. (2015). Impact of core competencies on competitive advantage: A study based on RBV. *International Journal of Research in Commerce, Economics and Management,* 5(3), 1-5.

Steger, U., & Lonescu-Somers, A. (2005). Defining corporate sustainability and its dimensions: A survey of sustainability experts.

Ulrich, D. (1997). Measuring human resources: An overview of practice and a prescription for results. *Human Resource Management*, 36(3), 303-320.

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171 -180.

Wilson, D. (2003). Corporate sustainability: What is it and where does it come from*? Ivey Business Journal*, 67(6), 1-5.

Zahid, M., & Ghazali, N. A. M. (2015). Corporate sustainability reporting in Malaysia: A review of literature. *Asian Journal of Business and Accounting*, 8(1), 97-123.

Zeb-Obipi, I. (2007). Competence management: Its implication for productivity and strategic performance. *Journal of Business and Entrepreneurship*, 1(1), 24-35.

Systemic Leadership Interventions and the Repositioning of Nigerian Health Institutions for Emerging Global Contexts

KPAKOL Aborlo Gbaraka
Department of Management, Faculty of Management Sciences
Rivers State University
aborlogbaraka@yahoo.com

OGBONDA Enyinda Henry
Department of Management, Faculty of Management Sciences
Rivers State University
henryenyinda1@gmail.com

Abstract
This study focused on the role of systemic leadership interventions in the repositioning of Nigerian tertiary health institutions. This followed the need to address the Nigerian health sector's changing realities and operational demands within the framework of a much larger and dynamic global health context. The research was designed as a systematic review, drawing on the evidence generated by previous studies within the context of Nigeria. The research question, which centred on ascertaining suitable systemic leadership interventions for effectively repositioning Nigerian health institutions for the emerging global context, guided the development of keywords and the literature search. Related facets of systemic leadership such as capacity building, participation and connectivity, cohesion, innovation and integration were emphasized in line with their possible roles in enabling the effective adjustment and changes in the behaviour and operations of Nigerian health institutions. In conclusion, it was stated that systemic leadership interventions designed in line with the micro, meso and macro concerns of the country's health system, advance a balanced approach, necessary and suited for addressing the goals of repositioning health institutions in line with the emerging realities of the global context. Recommendations for the research identified the need for improved monitoring, evaluation and a renewed commitment to the well-being Nigerian health sector and its institutions.
Keywords: Systemic leadership interventions, Nigerian health institutions, global contexts, organizational change

Introduction

Healthcare is fundamental to the progress and development of society. This is because it offers stability in terms of well-being and sustained functionality at all societal levels (Makinde, 2021). However, the concern of quality service delivery in the health sector remains a challenge which cuts across countries of the world; especially countries of the Global South, such as Nigeria. Ene (2014), posited that the problems of healthcare in Nigeria are clearly reflected in the gaps bordering on seven (7) primary components, identified and emphasized by the World Health Organization (WHO, 2007) as the building blocks of the healthcare system. These comprise of (a) governance (b) funding (c) healthcare information systems (d) healthcare workforce (f) service delivery, and (g) medicine. These challenges militate against the development of the country's healthcare system and for decades, have marred the country's healthcare-related objectives of advancing and competing on an international and global scale.

Research has in the past, centred on the role of increased funding (Ibukun & Komolafe, 2018), stakeholder partnerships (Oweji, 2017) and policy reforms (Makinde, 2021) in addressing the problems of the healthcare system; unfortunately, most of these, offer only superficial solutions to addressing the problem of the country's deteriorating healthcare system. For example, the proposed bill by Nigerian lawmakers to retain newly trained medical and dental staff for a five-year compulsory service before they are granted their licenses was largely criticised by the public, scholars and medical professional bodies and groups as discriminatory and also for only addressing a symptom rather than the actual problems of the industry (BMJ, 2023). Ngubane (2017) pointed to the significance of staff training and development in retaining competent and skilled workers in the health sector. Their research corroborates the observations of Oleribe, Ezienne, Oladipo, Akinola, Udofia and Taylor (2016) that workers' sense of placement and relevance to any system such as the Nigerian health system is hinged on the extent to which their development and functional needs are addressed. However, as earlier noted, the focus on the worker or staff offers only a superficial redress

to a deeper and more rooted phenomenon.

In their study Adeloye, David and Olaogun (2017) argued that control measures in line with monitoring should be reinforced with related institutions, ensuring effective follow-up on medical supplies, personnel and medical practices. While Adeloye et al.'s (2017) position appears to focus primarily on the streamlining of behaviour and actions within the health institutions, emphasizing regulations and policies, it does nonetheless hint at a more encompassing perspective - leadership. Leadership within the Nigerian healthcare system is multi-faceted, extending across the administration of institutions, to the management of public expectations and also the negotiation of benefits and interests for the health institutions (Gambo, Inuwa and Usman, 2021). An understanding of such role multiplicity and the implications of lags in particular areas, processes or functions for the well-being of the entire system; opens up and advances the need for a systemic leadership stance and its related interventions in addressing the problems of the Nigerian healthcare system.

Systemic leadership describes a holistic approach to coordinating and directing the affairs of the institution, creating and strengthening the link between the individual and collective components of the institution (Hoogenboom, 2023). It is as such centred on the connectedness and integration of processes, matching internal with external factors in ways that are consistent with the objectives of the institution (Hoogenboom, 2023). The foregoing demonstrates the dire need for leadership which is integrating and which focuses on harmonizing various processes, practices and features in line with not only enhancing service quality within the country but also attaining healthcare standards that match the emerging trends in global healthcare practices and standards. This study contributes toward addressing this need as it focuses on identifying systemic leadership interventions which could be carried out in the repositioning of Nigerian health institutions for emerging global contexts. Thus, the underpinning research question for this study is stated as follows:

> *What systemic leadership interventions are suited for effectively repositioning Nigerian health institutions for the emerging global context?*

In addressing this question, the objectives of the study are to:

Determine the prevailing barriers that militate against the development of health institutions in Nigeria

Identify dominant leadership roles at various levels that are considered significant in bridging the operational gaps of health institutions in Nigeria

Provide evidence-based recommendations, intended to guide leader intervention programs for repositioning health institutions in Nigeria for emerging global

Literature Review

Baseline theory: General systems theory

The general systems theory was adopted as the theoretical foundation for this research. Developed by Ludwig Von Bertalanffy over a period of 30 years spanning from 1930 to 1968 (Jackson, 2003), the primary tenets of the general systems theory are such that identify with the multi-layered nature of systems and the need for an integrated approach when dealing with such. The general systems theory, reinforces the position of previous studies (Ibukun & Komolafe, 2018; Makinde, 2021) on the dynamic and multi-faceted nature of the problems of health institutions in Nigeria; espousing on the interconnectedness of components, actions, function and the extent to which failures or gaps in particular facets or features, often extend or are reflected in others. Drawing on its tenets, the theory thus clarifies on the need for leadership that is systemic in nature, considerate of the various layers, facets and levels of target institutions (Makinde, 2021).

Systemic Leadership

The conceptualization of systemic leadership is hinged on a range of sources which primarily emphasize the need for a more integrated approach toward charting the course of the organization. In

her article, the leader of the Berth Hellinger Institute and Systemic Business School, Hoogenboom (2023) identified systemic leadership as one which recognizes the link between the components of the institution and is also willing to be accountable and takes responsibility for the outcome of the entire system. According to Yukl (2008), leaders must be capable of maintaining balance in the system, and also disrupting it when there is the need for change. However, unlike other forms of leadership considered change-oriented (for example adaptive leadership and contextual leadership), systemic leadership is one which stresses connectedness and cohesion, amongst the various internal (employees) and external (clients and other stakeholders) constituents of the organization (Clarke, 2013; Packard & Jones, 2015).

In another vein, Glamuzina (2015) referred to systemic leadership as dynamic in nature, encompassing a variety of actions and behaviours, all of which focus on ensuring a more cohesive system. To achieve this, it is important that communication is adequate and consistent across levels and units of the organization; and also, between the organization and its stakeholders. Paunova (2015) identified leadership as a process; and one that is constantly navigating through endless possibilities and a myriad of interacting factors in ensuring the survival and continuity of the organization. As noted by Schermerhorn (2011), leadership is a social action, drawing its essence and core meaning essentially from its social context and the availing of followership. These observations, reiterate the need for leadership to be more accommodating and systemic in nature, especially within health institutions in Nigeria. This is because, as WHO (2019) pointed out, one of the reasons why the challenges of the Nigerian health sector appear to be so persistent is because, most efforts appear to focus on particular facets or aspects, rather than a holistic approach.

Barriers to the development of health institutions in Nigeria

The challenge of development and innovation in the health sector is arguably widespread (Kim & Lane, 2013). Onyeji (2017) reported that the particular barriers to the development of the Nigerian health sector are peculiar to the country's unique conditions. According to Onyeji (2017), these conditions are such that stem from high levels of corruption expressed in various sectors of the economy, the decline in the quality of education, and the lack of infrastructure. These have contributed to the rise in unethical health practices, the lack of skilled or competent workforce, brain drain across various sectors including the health sector, inaccessibility of quality health services due to costs of such or the sparsity of health centres especially within rural areas. These alongside other factors, pose as the dominant barriers to the development of the Nigerian health sector and system (Eme, 2014; Odutolu, Ihebuzor & Tilley-Gyado, 2016; Oleribe et al, 2018).

Adeloye et al (2017) posited that the negative conditions of the Nigerian health sector are fundamentally man-made. Adeloye et al.'s (2017) position is premised on the observation that, unlike most Western countries who have over the years, demonstrated resilience in their healthcare sector, surmounting natural disasters such as earthquakes, flooding and other related phenomena that increasingly burden and forestall the growth and development of businesses, as well as healthcare facilities in disaster-prone locations. However, such a perspective appears to suggest that countries like Nigeria are free or void of natural disasters as well. While occasions of earthquakes or tremors have been relatively mild and scarce in the country, flooding is a major issue in Nigeria. One which in the last decade has accounted for more than 1.4 million displaced people, with businesses, health centres and equipment lost to such occurrences (Orakpo, 2023; Orizu, 2022).

Systemic Leadership Interventions in the Repositioning of Nigerian Health Institutions

One undermined factor in the assessment of the Nigerian health sector, borders on the intricacies of leadership. By this, one refers not only to leadership within the health institutions themselves, but leadership connected and responsible for decisions that affect the well-being of these institutions. This ranges from positions of authority directly responsible for the country's health ministry and also such within the health institutions as well (Gurdian, Halbeisen & Lane, 2014). It is as Malaky-

an (2014) pointed out, imperative to understand, that leadership is a partnering and collaborating process, where various groups saddled with unique but linked responsibilities, understand each other and are willing and able to cooperate in a sensible and consistent manner toward the goals of the institution. This as Hoogenboom (2023) argued is what systemic leadership offers; a view of leadership that does not emphasize any particular level or role, but one which understands the criticality of connectedness and the flow of actions across levels, departments and groups within any operational or functional framework.

The lack of coherence in leadership creates dissonance and allows for conditions where unethicality, negligence, irresponsibility and corruption fester (Packard & Jones, 2015). Where leadership is coherent and values are consistently reinforced across the health sector, discipline is expressed and behaviour across organizational levels and units is constantly evaluated in line with proposed functional or operational values and standards (Gurdian et al, 2014). Also, there is a shared sense of responsibility toward the achievement of the organization or institution's objectives. Such collaboration also extends to the stakeholders of the sector, bridging expectations and enabling a more inclusive stance in tackling the barriers of the sector. This way, decisions are not narrowed to just the interests or concerns of a particular level, or group, but such that identify with the various concerns of stakeholders (internal and external) and constituents of the institution. Such a disposition toward leadership will as such offer a richer and wider range of solutions to the goal of repositioning health institutions in the country (Hoogenboom, 2023).

The repositioning of health institutions pertains not only to the availing of competent staff, and the provision of funding and facilities for the operations of healthcare centres and institutions. It also involves the enforcement of quality standards, which are consistently reviewed in line with ensuring best practices and matching the emerging realities of healthcare in the global context. Hence, the process of repositioning health institutions should be considered as such that aims at progressively advancing these institutions innovatively toward objectives that are constantly changing in line with the fading continuum of evolving global contextual factors.

Research bordering on the stated concerns of health institutions in Nigeria are such that have covered leadership-related responsibilities and factors such as motivation (Abubakar, Basiru & Oluyemi, 2018), manpower training (Ngubane, 2017), policy implementation (Odutolu et al, 2016), supervision (Eme, 2014) funding (Uzochukwu, Ughasoro, Etiaba, Okwuosa, Envuladu & Onwujekwe, 2015) and also participation (Eme, 2014); however, a more integrated assessment of these factors, which identifies with the multi-faceted and systemic nature of leadership would offer a deeper and more dynamic approach to the goal of repositioning health institutions in Nigeria.

Methodology

The method adopted in this research is the Systematic Literature Review (SLR). The systematic review builds on availing evidence on the subject or focus of research; synthesizing related facts and observations to offer a comprehensive position on the subject matter (Baird, 2018). While the systematic review supports quantitative, qualitative as well as a mixed-method approaches, this investigation adopts the mono-quantitative method in its review in line with ensuring methodological in-depthness and consistency in interpretations (Baker & Weeks, 2014). As an Evidence-Based Practice (EBP) search, the research question was operationalized using the Problem, Intervention, Comparison and Outcomes (PICO) format to identify the key concepts of interest for effectively identifying and sourcing useful and suitable materials and journals for the study. The PICO format supports operational actions targeted at quantitative research and as such differs from the Population, Exposure and Outcome (PEO) format which is more suited for qualitative research (Baker & Weeks, 2014).

Keywords were therefore such that focused on related concepts such as "systemic leadership" "leadership interventions" "Nigerian Health institutions" "Nigerian leadership" and others. Journals were also sourced from journal databases listed as top-ranking on the Scimago journal ranking for 2023 (https://www.scimagojr.com/). such as the Academy of Management, Journal of Management, Management Science Journal, The Leadership Quarterly, and others. The sorting and selection of journals were premised on the following inclusion criteria: (a) Journals must be published in English (b) Journals must focus on the Nigerian health industry or sector (c) journal must not be older than 10 years, and (e) journals should also be based on a quantitative method. The Centre for Evidence-Based Management (CEBM) critical appraisal checklist (CEBM, 2014) was adopted as the instrument for assessing the quality of journals and their relevance to the study.

Result

The screening and selection process for the journals is presented using the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) model as illustrated in Figure 1.

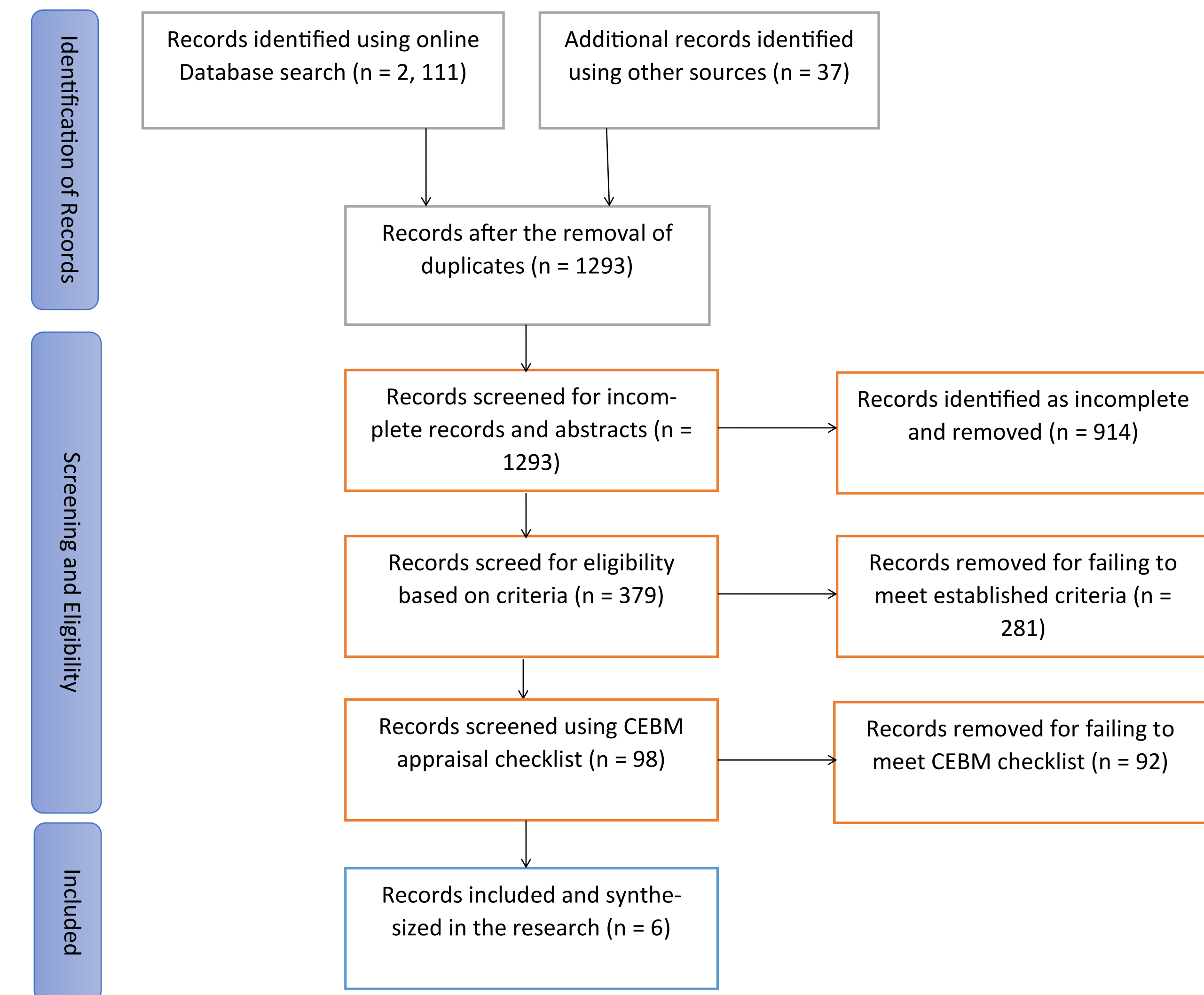


Fig. 1: PRISMA model for the identification, screening and inclusion of records for the systematic review.
Source: Desk research (2023).

The PRISMA model (figure 1) illustrates the various stages of identifying and screening of the records for the review. From a total of n = 2148, only 6 records after screening and the test for eligibility were considered to match the specified criteria and appraisal standards for inclusion in the study. The result of the extraction of the data from the studies is carried out using the tabular approach with the results and findings for each study specified. Presented in Table 1 is the result of the extraction process for the study.

Barriers to repositioning of health institutions in Nigeria

The result from the extraction shows that the barriers militating against the development and repositioning of health institutions in Nigeria are primarily reflected on the three levels of society – the micro, meso and macro levels. Micro or individual level challenges are such that Abubakar (2020) identified as comprising of the lack of skilled or competent staff, pointed out by 69% of participants in the study, as well as the lack of knowledgeability of the use of equipment as a setback in the health institutions. On the meso (group or organizational) level, Udenta (2018), based on a 5-point scaling for items, identified challenges such as the mismanagement of funds, fraud and corruption as prevalent within the context of health institutions at a mean of x = 4.5. This is corroborated by the evidence of Isibor et al (2020) where 80% of participants identified the lack of discipline and scant adoption of corrective measures such as queries in the modification of behaviour. These suggest a poor level of staff monitoring and regulation within the organization.

Ezeoha et al (2012), pointed to lags in information management (77%), poor work planning and performance review (89%) and poor leadership programs (81%). Asuquo (2007) also identified the lack of modern leadership training at $x^2 = 0.833$ as a barrier and impediment to providing high-quality services in health institutions. At the macro level, Udenta (2018) pointed to barriers as such that relate to the lack of political commitment to the development of health centres (x = 3.7); a factor which Udenta (2018) also observed has led to the inadequacy of infrastructure; such as expressed in the form of poor power or electricity supply, poor water supply and the lack of other basic amenities. These barriers are such that as shown, are reflected at various levels, suggesting a multi-level disposition to the problem. Presented in Figure 2 is a fishbone diagram illustrating the identified barriers to the development of health institutions in Nigeria.

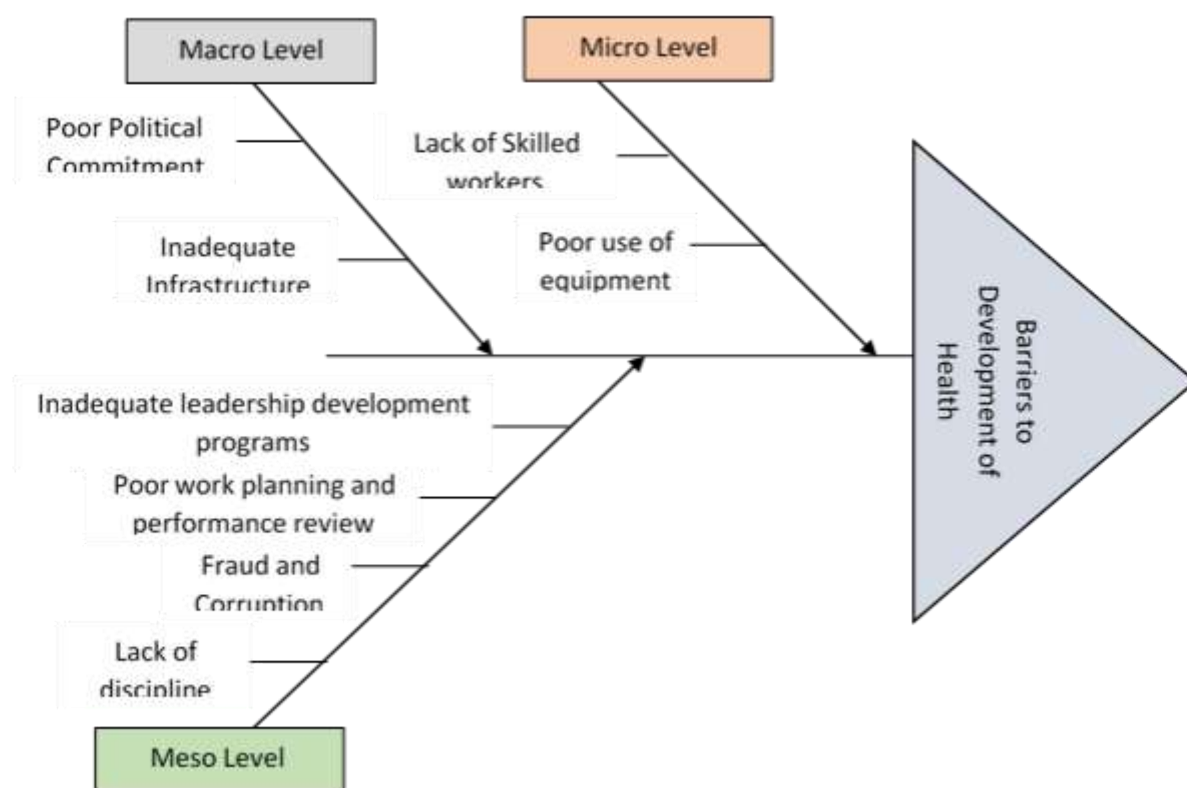


Fig. 2: Fishbone Diagram for the Barriers to the Development of Health Institutions.
Source: Desk research (2023).

Leadership roles significant to bridging the operational gaps of Nigeria's health institutions

The observed roles of leadership identified as significant to the bridging of the operational gaps for the repositioning of the health institutions in Nigeria are such that is reflected, according to Nnia et al (2023) in the formulation of strategies ($r = 0.404$, $P < 0.05$), the implementation of strategies ($r = 0.434$, $P < 0.05$) and the evaluation of strategies ($r = 0.415$, $P < 0.05$). Asuquo (2007) identified factors such as leaders' sensitivity to the conditions of patients ($x^2 = 0.095$), and teamwork ($x^2 = 0.56776$) as characterizing the health institutions. Similarly, Abubaka (2020) identified other leader-driven features such as consistent and regular evaluation of roles (95%) performance evaluation (71%), and positive organizational outcomes using specific objectives (99%). The result points to significant leadership actions that are not only strategic in nature but also emphasize teamwork and sensitivity to patients' conditions and well-being. To this end it is imperative that the leadership of the target institutions in Nigeria, focus on key responsibilities and roles which capture the development and implementation of strategies, the conditions and experience of service by the patients, the development and strengthening of teams in the institutions, performance evaluation and management and the clarity and accomplishment of objectives.

Discussion of Findings

This research, drawing on the synthesis of previous research, identified the barriers in Nigerian health institutions as multi-level; prevailing on the micro, meso and macro levels of the context. From the findings, the barriers at the micro or individual level are reflected in the lack or scarcity of competent and skilled workforce, as well as the poor knowledgeability and use of equipment in health institutions. This resonates with the observations of Ngubane (2017) that the poor level of education and depreciating value for societal wellbeing, has resulted in a growing façade of interest in the health sector and a superficial disposition toward addressing related training and motivational gaps in the sector. Abubakar (2020) also affirmed this position, noting that the required boost in the system should not focus on the health institutions alone, but should extend to the upgrading of training standards and the quality of education offered in medical and nursing colleges in the country.

At the meso level, the barriers expressed are such that demonstrate existent gaps and operational constraints in the area of leadership development, poor organizational planning and performance reviews, fraud, corruption and the mismanagement of funds as well as the lack of discipline with most health institutions in the country. Uzochukwu et al (2015) affirmed the imperatives of refocusing leadership through improved policy development and monitoring in health institutions. Through refocusing actions, more attention can be paid to key factors such as tailored leadership development programs and the alignment of institution processes and operations with stated objectives using performance evaluations and reviews. But as Udenta (2018) argued, reforms are only as good as the extent to which they adequately address the root and ideologies which deter the development of these institutions. The findings of this research thus, reinforce the position and perspective of the systems theory on the interrelatedness of institutional components and the dynamic interaction that exists between health institutions and their environment (Schermerhorn, 2011; Malakyan, 2014).

The findings thus portray the need for a multi-level approach toward addressing the barriers and constraints of health institutions in Nigeria. Such bordering on the use of intervention programs or actions focused on enhancing underlying leadership dispositions toward the health sector. This holds true for the Nigerian experience given the level of degradation resulting from the poor political commitment to the sector as evidenced by the findings of this research is also corroborated by previous studies (Eme, 2014; Oyefabi et al, 2014; Ibukun & Komolafe, 2018). Related findings at the macro level point to the lack of inadequacy of infrastructure coupled with poor funding and support due to low political interest and poor commitment to the sector. These conditions have stifled the growth and development of Nigerian health institutions, leading to a collapse of trust and confidence in the operations of these institutions (Ibukun & Komolafe, 2018). The findings of the study thus identify systemic leadership as central to addressing the various facets and components associated with the well-being of these institutions and also advancing the required interventions for improved outcomes.

The observed significance of leadership in the areas of strategy formulation, implementation and evaluation points further to the multi-layered role of the leader as fundamentally responsible for creating a vision for the institution, and ensuring that related outcomes of processes and operations, align with intended goals and purposes of the institution (Yukl, 2008). This involves the instituting of policies, programs and structures that serve to harness the potentials of workers, and also reinforce its capacities through the provision of infrastructure, as well as a conducive and supportive framework necessary for the repositioning of the institutions, in line with the shifts in the global context. The narrative advanced and reiterated by the findings of this research are therefore such that anchor on the need for a harmonized approach and more integrated leadership approach toward addressing the problems of Nigerian health institutions.

From the foregoing, the key systemic leadership interventions are therefore expected to emphasize on three main areas – (a) the supply, development and motivation of competent and knowledgeable medical personnel to the health institutions in Nigeria (b) the strengthening of control, monitoring and evaluation of the operations and standards as well as quality of services expressed within the health institutions in Nigeria, and (c) the rejuvenation of interest and attention toward funding, and advancing conducive and innovation driven health facilities, comparable such available in most developed contexts and as such in line with the shifts in the global context. Such Interventions should anchor on solidifying operational features driven by knowledge, competence, ethics, quality service and affordability through the reconfiguring of processes, policies and the culture of the health institutions.

Conclusion

The barriers identified in this research are such that demonstrate the multi-layered and multi-faceted nature of constraints and setbacks expressed within the context of health institutions in Nigeria. In view of the facts put forward, it is plausible to state that one of the reasons for the deteriorating and deplorable conditions of most health institutions, follows the poor integration and the lack of consideration of various underpinning factors, behaviour and practices that continue to negate and counter actions concerned with policy implementation; militating against the repositioning of the health institutions. To this end, it is the position of this research that systemic leadership interventions, is imperative in advancing a more cohesive and integrated disposition toward addressing the various levels of challenges that plague the health system in the country. It is thus affirmed that systemic leadership interventions designed in line with the micro, meso and macro concerns of the country's health system, offer a much more balanced approach, suitable for effectively addressing the goals of repositioning of health institutions in line with the emerging realities of the global context.

Evidence-Based Recommendations for Systemic Leadership Interventions

In line with the evidence generated in this study, the following recommendations are put forward:

Micro Level Systemic Leadership Interventions

It is imperative that the government and the Ministry of Health collaborate on advancing policies formulated in line with effectively driving quality training and the education of medical students; ensuring linkage between tertiary institutions and health institutions. Such linkage should emphasize the quality of graduates and the matching of their skills with the changing dynamics and needs of health institutions

Motivation techniques adopted by the management of health institutions must centre on both financial as well as non-financial approaches, through the use of reward strategies that are not only competitive and demonstrate the value of skilled personnel, but also such that offer meaning and purpose to the employee through enriched work experiences, substantial welfare packages and conducive work environment

Meso Level Systemic Leadership Interventions

The leadership and management of health institutions must advance frameworks that emphasize ethical practices and codes of conduct, ensuring that actions and behaviour are closely monitored, and evaluated in line with expected standards of operations and service quality. This is imperative for ensuring ethical compliance and curtailing fraud, and corruption within the ministries and health institutions

The leadership and management of health institutions in Nigeria, should also emphasize on stakeholders' partnerships, and institution partnerships, and through such, develop the competencies and infrastructure of Nigerian health institutions. This is necessary as it offers these institutions alternative sources for funding, access to resources and also learning opportunities.

Macro Level Systemic Leadership Interventions

It is imperative that related authorities and leaders involved in decision-making and responsible for the development of health institutions in the country, demonstrate sincerity and a renewed commitment to funding and driving the growth, development and effectiveness of the health sector through favourable policies, budgetary allocations and legislative actions that build on its value and significance to the country.

Policy consistency is a major concern of the Nigerian health sector and as such, it is imperative that actions are taken in line with establishing regulatory frameworks that protect and ensure the adoption, or where necessary, refinement of instituted health policies by succeeding administrators and government authorities, responsible for the development and performance of the Nigerian health sector.

References

Abubakar M, Basiru S, & Oluyemi J, (2018). Medical tourism in Nigeria: challenges and remedies to health care system development. *Int J Dev Manage Rev*, 13(1).

Adeloye D, David RA, & Olaogun AA, (2017). Health workforce and governance: the crisis in Nigeria. *Hum Resour Health*. 15(1), 32.

Baird R. (2018). Systematic reviews and meta-analytic techniques. *Semin Pediatr Surg. 27*(6); 338-344

Baker KA, (2014). Weeks SM. An overview of systematic review. *J Perianesth Nurse, 29*(6), 454-458

Clarke, N. (2013). Model of complexity leadership development, *Human Resource Development International, 16*(2), 135-150.

Day, D. V., Fleenor, J. W., Atwater, L. E., Sturm, R. E., & McKee, R. A. (2014). Advances in leader and leadership development: A review of 25 years of research and theory. *The Leadership Quarterly, Vol.* 25 (1), 63-82.

Eme, O. I. (2014.). Building a solid healthcare system in Nigeria: Challenges and Prospects. Academic Journal of interdisciplinary studies, 3 (6)

Gambo N, Inuwa II, & Usman N, (2021). Factors affecting budget implementation for successful delivery of primary health care building facilities within Nigerian health sector. *Int J Constr Manag, 21*(5); 476–489

Glamuzina, M. (2015). Levels of leadership development and top management's effectiveness: Is there a clear-cut relationship? Management: *Journal of Contemporary Management Issues, 20*, 89-131.

Gurdjian, P., Halbeisen, T., & Lane, K. (2014). Why leadership-development programs fail. *McKinsey Quarterly, Vol. 1*(1), 121-126.

Hanson, B. (2013). The leadership development interface: Aligning leaders and organizations toward more effective leadership learning. *Advances in Developing Human Resources, 15*(1), 106-120.

Hoogenboom B. (2023). *What is systemic leadership. Bert Hellinger Institute*. Retrieved from: https://systemicbusinessschool.nl/en/blog/what-is-systemic-leadership/

Ibukun, C. &Komolafe, E. (2018). Household catastrophic health expenditure: Evidence from Nigeria. *Microeconomics and Macroeconomics, 18*(6), 1-8.

Jackson, M. (2003). *Systems thinking: creative holism for managers*, Chichester: John Wiley & Sons, Ltd.

Kim, K. T. & Lane, R. S. (2013). Government health expenditure and public health outcomes: A comparative study among 17 countries and implications for US Health care reform. *American International Journal of Contemporary Research, 3*(9), 8-13.

Makinde F (2021). The nation's public health sector. The Punch.

Malakyan, P. G. (2014). Followership in leadership studies: A case of leader–follower trade approach. *Journal of Leadership Studies* (7), 6-22.

Muka T, Glissic M, & Milic J, (2019). A 24-step guide on how to design, conduct, and successfully publish a systematic review and meta- analysis in medical research. *Eur J Epidemiol., 35*(1), 49-60.

Ngubane A (2017) *Medical professionalism and state power in Nigeria.* Centre for development studies. University of Jos, Nigeria.

Odutolu O, Ihebuzor N, Tilley - Gyado R, (2016). Putting institutions at the centre of primary health care reforms: Experience from implementation in three states in Nigeria. *Health Systems and Reform, 2*(4), 290-301.

Oleribe OO, Ezieme IP, Oladipo O, Akinola EP, Udofia D, & Taylor-Robinson SD. (2016). Industrial action by healthcare workers in Nigeria in 2013–2015: An inquiry into causes, consequences and control – a cross-sectional descriptive study. *Human Resource Health*.14(1), 46.

Oleribe OO, Udofia D, Oladipo O, Ishola TA, & Taylor-Robinson SD. (2018). Healthcare workers' industrial action in Nigeria: a cross-sectional survey of Nigerian physicians. *Human Resource Health*, 16(1); 54.

Onyeji E (2017) *Investigation: The terrible state of Nigeria's Primary Health Care Centres. Nigeria State*. The Premium Times, Nigeria.

Oyefabi A, O., Aliyu, A. A., & Idris, A. (2014). Sources of health care financing among patients at the Ahmadu Bello University Teaching Hospital, Zaria, Nigeria. *Journal of Medical Trop, 16* (1), 27-31

Packard, T., & Jones, L. (2015). An outcomes evaluation of a leadership development initiative. *Journal of Management Development, 34*(2), 153-168.

Paunova, M. (2015). The emergence of individual and collective leadership in task groups: A matter of achievement and ascription. *The Leadership Quarterly, 26*(6), 935- 957.

Schermerhorn, J.R., (2011). *Exploring management*. 3rd edition. New York. Wiley Global Education.

Uzochukwu B, Onwujekwe O, & Mbachu C (2015) Implementing the basic health care provision fund in Nigeria: A framework for accountability and good governance. *Health Policy Research Group Brief, Nigeria*. 1-4.

Uzochukwu BSC, Ughasoro MD, Etiaba E, Okwuosa C, Envuladu E, Onwujekwe OE. (2015). Health care financing in Nigeria: implications for achieving universal health coverage. *Nigerian Journal of Clinical Practice*, 18(4), 437–444.

WHO (2019). *Strengthening the healthcare system in north-east Nigeria: A priority*. World Health Organization.

Yukl, G. (2008). How leaders influence organizational effectiveness. *The Leadership Quarterly, 19* (6), 708-722.

APPENDIX I

S/N	Author(s)/ Date	Purpose of the study	Research Design	Population/Sample	Instrument/ Technique of Analysis	Result of the Study
1	Ezeoha et al (2012)	The assessment of leadership and governance as well as organizational human resource development in strengthening healthcare systems in Nigeria.	A cross sectional survey design was adopted in the study	Purposively selected health policy makers, directors and heads of department in State Ministry of Health	Questionnaire / Descriptive analysis using tools such as mean and median	Poor information management systems in healthcare (77%); poor work planning and performance review (89%); poor leadership development programs (81%)
2	Nnia et al (2023)	The investigation of strategic management practices and performance of Nigerian teaching hospitals	The design for the study was the cross-sectional survey	Sample was 286 medical and non-medical personal from 1000 workers of the university of Nigeria teaching hospital	Questionnaire / Descriptive and regression analysis	Strategic formulation positively influences the performance of UNTH ($r = 0.404$, $P < 0.05$); Strategic implementation positively influences the performance of UNTH ($r = 0.434$, $P < 0.05$); strategic evaluation positively influences the performance of UNTH ($r = 0.415$, $P < 0.05$)
3	Asuquo (2007)	The investigation of leadership programs and quality of care of the national HIV/ AIDS program in Nigeria	The specified design for the study was the cross-sectional design	133 workers covering doctors, nurses, pharmacists, and social workers in all health institutions providing HIV/AIDs services in the Federal Capital Territory (FCT) of Nigeria	The questionnaire and in-depth interviews/ Chi-square tool for hypotheses testing	Quality of health services depend on leadership sensitivity towards patients ($x^2 = 0.095$); quality of services health services depends on teamwork ($x^2 = 0.56776$); lack of modern leadership skill is an impediment to providing high quality health services ($x^2 = 0.833$).

Table 1: The extraction process for the study

4	Abubaka (2020)	The use of performance management by hospitals leadership in the management of emergency service delivery in Katsina State hospital services	The study adopted a cross-sectional design in its analysis.	The population covered all hospitals managed by the Katsina State hospital services that have an emergency delivery department	The data for the study was generated using the questionnaire instrument/ Simple descriptive tools such as the frequency and percentage distributions were utilized.	Result showed positive outcomes in the use of organizational objectives (99%), guidance of employees (95%), regular and consistent evaluation of roles (95%), use of performance evaluation (71%); with poor outcomes in the areas of availability of skilled staff (31%), availability of equipment (31%), and availability of emergency services (25%).
5	Udenta (2018)	To identify the challenges to primary healthcare delivery in Enugu State Local Government Area Nigeria, and the role of the Local Government in Addressing such challenges.	The study adopted the cross-sectional design for the research	The sample for this research was 1,300 ward politicians, doctors, nurses, and community health personnel from a population of 2,700 staff in hospitals in public hospitals in Enugu State.	The questionnaire instrument was adopted in the generation of data/	The primary challenges identified in the healthcare centres include lack of electricity, water and other basic amenities (x = 4.5), lack of political commitment to the development of health centres (x = 3.7), Fraud, corruption and mismanagement of funds (x = 4.5), poor supervision and monitoring by Federal and State Authorities (x = 3.3).
6	Isibor et al (2020).	Exploring issues and challenges of leadership among early career doctors in Nigeria	The cross-sectional survey design was adopted in the research	The sample comprised of 474 medical and non-medical staff from seven hospitals from the South-South, South-West, North-West, North-Central	Data for the study was generated using the questionnaire instrument/	Results showed that there was a poor level of agreement to the sufficiency of leadership training and development in the health institutions (75%), the absence of discipline such as queries for poor behaviour (80%).

Product Innovation as a Mechanism for Organisational Survival of Soft Drink Companies in Nigeria

Wonah, Lovely PhD
Management Department
Ignatius Ajuru University of Education Rumuolumeni, Port Harcourt
lovelywonah@gmail.com

George, Yebimodei Esther
Department of Business Administration and Management
Federal Polytechnic Ekowei, Bayelsa State
kariebi2002@yahoo.com

Jaja Inye Sunday PhD
Department of Industrial Relation/Human Resource Management
Rivers State University
inyejaja@gmail.com

Abstract
This study examined product innovation as a mechanism for organisational survival of soft drink companies in Nigeria. Most manufacturing firms have been struggling to survive in the market and they have been reported to be downsizing in an effort to remain afloat. The specific objectives were: to ascertain the effect of new products on organisational survival of soft drink companies in Nigeria and, to evaluate the effect of redefinition on organisational survival of soft drink companies in Nigeria. The researcher adopted survey design for the study. The data for this study was obtained from primary and secondary sources. The population of this study was made up of the management staff of soft drink companies in Nigeria quoted by Nigerian Stock Exchange. The total population for the study was eighty–five management staff of the companies which was used as the sample size. Stratified random sampling technique was used in selecting the sample, which gave every member of the management staff equal chance of being selected, and therefore, made the sample a representative one. The Test-Retest reliability was used and computed through Statistical Package for Social Science (SPSS) version 20.0. This study concluded that, new and improved innovative products help introduce new features and functionalities to the markets. It recommends that, since new products affected the organisation survival to a very great extent, there is need for new and improved innovative products to introduce new features and functionalities to the markets.
Keywords: Product innovation, organisational survival, new-products, redefinition

Introduction

It is critical for all businesses to survive in the modern business environment. The ability or status of an organisation to continue operating in the face of hardship, hindrances, or threats is known as organisational survival. It requires adaptability, resilience, and resilience due to the business environment's rapid changes. A business needs to be able to include its workers in goal-setting and decision-making in order to thrive. This demonstrates that employees now bear some of the responsibility for keeping an organisation's competitive edge in the modern world, in addition to management (Oke & Olughor, 2014). The primary objective of every organisation is to ensure its survival, as stated by (Adewale *et al.* 2011).

The fight for organisational survival is crucial in this era of political unrest, economic upheaval, and technical advancements. On the other hand, Businesses can thrive in the marketplace by providing innovative, superior, and cost-effective goods and services that their clients can take advantage of and that their rivals are unable to match. According to Dodgson et al. (2008), the ability to produce goods and services more effectively and affordably or to create new goods and services gives an organisation a competitive advantage. These academics define competitive advantage in terms of two aspects. Competitive advantage has two dimensions: an absolute dimension and a relative dimension. In the relative dimension, firms' activities yield an edge over those of their competitors. In this instance, there has to be a market for the company's offerings.

Proceedings of the 4th Annual International Academic Conference

Three major factors are driving the increasing relevance of product innovation in today's global and dynamic competitive environment: fierce worldwide competition, fragmented and demanding markets, and diversified and constantly evolving technologies (Wheelwright & Clark, 1992). Businesses are better positioned to establish a long-lasting competitive advantage if they provide items that are tailored to the demands and desires of their target market and sell them quicker and more effectively than their rivals (Calantone *et al*., 1995). Knowledge, technological expertise, and experience in developing new goods are becoming more and more important sources of competitive advantage (Teece, 2003).

Manufacturing companies are changing at a dramatically fast rate in several countries. The global network of service providers is becoming more interconnected. Innovative business and corporate strategies, such as improved market segmentation, industry consolidation, altered delivery routes, and increased product offers, are now being investigated. It has been shown that information technology (IT) is a major enabler and catalyst for development in this sector. It is now necessary to do new and better things; doing things better is no longer sufficient. More and more people believe that creating and maintaining a competitive edge depends only on one's capacity for innovation (Tidd et al., 2001).

Product innovation, according to Nanang Rizali (2002), is the process of looking for new opportunities, ideas, and activities related to products in order to bring about improvements that would improve the welfare of the community. New products, new product lines, additions to current product lines, upgrades to current products, redefinition, and cost reduction are the six aspects, according to (Kotler & Keller 2012). Product innovation is fueled by the similarity of competing products' appearances, since competitors' products typically arrive without significant modifications and even have a tendency to stay static.

A company's ability to succeed and survive is frequently determined by the creation of a new product and its more successful marketing plan, but this is not an easy task. The process of developing a new product demands time, effort, and capacity, as well as an understanding of the risk involved and the cost of failure. But according to the intuitive tradition, plan and survival are closely related. Either you plan to survive, or you don't plan and don't survive as a result. The organisations of today crassly celebrate this worldview. Product innovation is something that organisations do for the sole purpose of advancing and surviving.

Statement of the Problem

Even though every company wants its enterprises to survive, the concept of business survival is still unclear because there isn't a clear methodology or set of reliable indications of business survival yet. As a result, research on business survival in the Nigerian setting will be fruitful (Majama & Magang, 2017). The majority of manufacturing companies enter the market with high expectations, but sometimes these expectations are not met. Certain items do not make it to the growth stage, and others do not develop to their full potential.

According to reports, the majority of manufacturing companies are shrinking in an attempt to stay afloat as they struggle to compete in the market (Noonan, 2012). Most of the time, these industrial companies have to lay off employees since they can no longer support themselves. In order to determine the best product innovation strategies that the manufacturing (soft drink companies) should use in order to grow, as well as the extent to which effective product innovation can help these firms reach their full potential, this study looks at the relationship between product innovation and the survival of manufacturing firms in Nigeria.

Objectives of the Study

The aim of this study was to evaluate the effect of product innovation on organisational survival of soft drink companies in Nigeria. While the specific objectives were:

To ascertain the effect of new products on organisational survival of soft drink companies in Nigeria**.**

To evaluate the effect of redefinition on organisational survival of soft drink companies in Nigeria

Research Questions

The following research questions shall be addressed in this study:

What is the effect of new products on organisational survival of soft drink companies in Nigeria?

What is the effect of redefinition on organisational survival of soft drink companies in Nigeria?

Research Hypotheses

The following null hypotheses guided the study;

Ho_1: There is no significant relationship between new products and organisational survival of soft drink companies in Nigeria

Ho_2: There is no significant relationship between redefinition and organisational survival of soft drink companies in Nigeria

Methodology

For the study, the researcher used a survey design. This study's data came from both primary and secondary sources. Responses to the questionnaire that respondents were given served as the source of the primary data. On the other hand, secondary data was gathered via the internet, journals, and textbooks. The population of this study was made up of the management staff of soft drink companies in Nigeria quoted by Nigerian Stock Exchange (2019). The total population for the study was eighty –five management staff of the companies which was used as the sample size. Stratified random sampling technique was used in selecting the sample, which gave every member of the management staff equal chance of being selected, and therefore, made the sample a representative one.

The researcher used Test-Retest reliability to test the consistency of different administrations and also to determine the coefficient reliability of this research. The same test was administered to different groups on at least two separate occasions. The Test-Retest reliability was used and computed through Statistical Package for Social Science (SPSS) version 20.0. In order to analyze the data for this study, descriptive statistics like percentages and frequencies were employed. To evaluate the questionnaire, frequencies and percentages were utilized. For the study, a five-point Likert scale was employed. By Pearson Regression analysis and the correlation coefficient were employed to examine the theories. The Statistical Package of Social Sciences was used to test the hypotheses at the 0.05 level of significance (SPSS).

Data Presentation/ Results and Discussion

A total number of eighty-five (85) questionnaire were distributed by the researcher to the management staff of soft drink companies in Nigeria. The table below presented the distribution of the questionnaire to the sampled respondents. The generated data was presented and analyzed in the subsequent sub-heading below.

Table 1: Return Rate of Questionnaire

Respondents	Questionnaire Distributed	Percentage Rate of Return (%)
Correctly Filled and Re-	81	94.1
Not correctly filled and	5	5.8
Total	86	100

Source: Field Survey, 2023

Table 1 showed that total of 85 questionnaire were distributed. 81 were correctly filled and returned with a percentage rate of 94.1% and Five (5) were not properly filled and returned. Therefore, the researcher made use of 81 questionnaire that were correctly filled and returned.

Data Presentation

The researcher performed a multiple linear regression analysis so as to determine the effects of product innovation on organisational survival in an organisation and the four independent factors namely: new products, new product lines, redefinition and cost reduction

Table 1: Model Summary

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	0.843	0. 742	0.724	0.4216

a) Predictors: (Constant), New products, Redefinition.
b) Dependent variable: Organizational survival

The study used the R square. The R Square was called the coefficient of determination and revealed how the organisational survival varied with new products, redefinition. The four independent variables that were studied explain 74.2% of the factors affected organisational survival as represented by R Squared (Coefficient of determinant). This therefore means that other factors not studied in this research contributed 25.8% of the factors affected organisational survival.

Table 2: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	11.72	9	1.302	44.231	.000(a)
	Residual	3.432	35	0.066		
	Total	**15.152**	**26**			

a) Predictors: (Constant), New products, Redefinition.
b) Dependent Variable: Organizational survival

The study used ANOVA to establish the significance of the regression model from which an f-significance value of p less than 0.05 was established. The model was statistically significant in predicting how new products, redefinition affect organisational survival. This showed that the regression model had a less than 0.05 likelihood (probability) of giving a wrong prediction. This therefore means that the regression model had a confidence level of above 95% hence high reliability of the results.

Table 3: Coefficients Results

	Un standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.116	.186		0.623	.535
New products	0.577	.068	.559	8.478	.000
Redefinition	0.157	.043	.257	3.676	.036

a) Predictors: (Constant), New products, Redefinition
b) Dependent Variable: Organisational survival
The established regression equation was:

Y = 0.116 + 0.577X1 + 0.157X2 + 0.082X3 + 0.021X4 + ε

The regression equation above had established that holding all factors (new products, redefinition) constant, factors affecting organisational survival was 0.116. The findings presented also showed that taking all other independent variables at zero, a unit increase in new products resulted to a 0.577 increase in the scores of the organisational survival. A unit increase in redefinition resulted to a 0.157 increase in organisational survival. On the other hand, a unit increase in cost reduction resulted to a 0.082 increase in the scores of the organisational survival; and a unit increase in new product lines resulted to a 0.021 increase in the scores of the organisational survival. This inferred that new products influence the organisational survival, most followed by cost reduction, redefinition and then new product lines. The study also established a significant relationship between organisational survival and the independent variables; new products ($p=0.00<0.05$), redefinition ($p=0.036<0.05$), cost reduction ($p= 0.20<0.05$) and new product lines ($p=0.001<0.05$) as shown by the p values.

Conclusion

The primary objective or mission of any organisation is to ensure its survival. In these times of political unrest, economic upheaval, and technological advancements, it is imperative for manufacturing companies to pursue organisational survival, which necessitates the development of new goods. Innovative items that are updated and new contribution to the market introduction of new features and functionality. It demonstrates how gathering feedback from customers helps businesses develop better product features. Product redefinition is the process of presenting a current product in a modified form or package while preserving some of its desirable aspects and making it more aesthetically pleasing. The study recommends that since new products affected the organisation survival to a very great extent, there is need for new and improved innovative products to introduce new features and functionalities to the markets; and that managers should step outside the box to innovate, hence enable the organisation survive the porous competitive business environment.

References

Adewale, O. O., Joachim, A. A., & Obamiro, J. K. (2011). Succession planning and organisational survival: Empirical study on South-South region of Nigerian private tertiary institutions. *Serbian Journal of Management, 6*(2), 231 – 246.

Bloch, C. (2007). Assessing recent developments in innovation measurement: the third edition of The Oslo Manual, *Science and Public Policy, 34*, 23-34.

Brown, J. S. (1997).Seeing *differently, insights on innovation*, Boston, MA. Harvard Business School Press.

Calantone, R. J., Vickery, S. K., & Droge, C. (1995). Business Performance and Strategic New Product Development Activities: An Empirical Investigation, *Journal of Product Innovation Management*, *12*, 214-223.

Davila, T., Epstein, M. J., & Shelton, R. (2006). *Making innovation work: How to manage it, measure it, and profit from it*. Pennsylvania, Wharton school publishing.

Dodgson, M., Gann, D., & Salter, A. (2008).*The management of technological innovation*, Oxford University press.

Gross, B. (1968). *Organisations and their managing*. New York: The free Press.

Huber, G. P. (2011). Organisations: Theory, design, future. In S. Zedek (Ed.), *APA handbook of industrial and organisational psychology* (V1). Washington, DC: American Psychological Association.

Jiang, T., (2003). Firm size and IT investment: Beyond simple averages. In Twenty- Fourth International Conference on Information Systems.

Kotler, P., & Keller, K. (2009). *Manajemen Pemasaran. Jilid I. Edisi ke 13*. Jakarta: Erlangga.

Lee, J. (2006). Management succession planning and corporate survival in Nigeria: A study of banks in Port Harcourt. *European Journal of Business and Management, 7*(27), 153- 176.

Majama, N. S., & Magang, T. I. T. (2017). Strategic planning in Small and Medium Enterprises (SMEs): A case study of Botswana SMEs. *Journal of Management and Strategy, 8*(1), 74-103.

Nanang, R. (2002). Peranan Inovasi Dalam Pemasaran Produk. *Wacana Seni Rupa Jurnal Seni Rupa & Desain, 2*(4), Mei; 1- 29.

Nwakoby, N. P., & Ihediwa, A. (2018). Effect of diversification on the financial performance of selected firms in Nigeria. *International Journal of Advanced Academic Research | Social & Management Sciences, 4*(12), 1-16.

Oke, M. A., & Olughor, R. J. (2014). The relationship between organisational survival and employee mental ability. *International Journal of Business and Social Science, 5*(6), 1-12.

Purkayastha, S., Manolova, T. S., & Edelman, L. F. (2012). Diversification and performance in developed and emerging market contexts: A review of the literature. *International Journal of Management Reviews, 14*(1), 18-38.

Rumelt, R. P. (1982). Diversification strategy and profitability. *Strategic Management Journal, 3* (4), 359-369.

Sheppard, J. P. (1993). Organisational survival and corporate level diversification. *Journal of Financial and Strategic Decisions, 6*(1), 113-132.

Shi, J. (2014). Empirical research on the relationship between firm size and firm performance.

Sudarsanam, S. (2003). *Creating value from mergers and acquisitions: The challenges: An integrated and international perspective*. Pearson Education.

Teece, D. J. (2003). *Essays in technology management and policy*, World Scientific Publishing, Hackensack, NJ.

Thomas, D. E. (2006). International diversification and firm performance in Mexican firms: a curvilinear relationship?. *Journal of Business Research, 59*(4), 501-507.

Tidd, J., Bessant, J., & Pavitt, K. (2001).*Managing innovation: Integrating technological, market and organisational change*, Wiley, Bognor Regis.

Wang, F., (2011). Enterprise size, performance, age and enterprise survival: Theory and ReCognition. *Future and Development, 7*.

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal, 5*(2), 171 -180.

Wheelwright, S. C., & Clark, K. B. (1992). *Revolutionalizing product development – Quantum leaps in speed, efficiency, and quality*, New York. The Free Press Inc.

Talent Management and Competitiveness: A Study of Food and Beverages Firms in Port Harcourt

Geoffrey Obinna (PhD)
Faculty of Management Sciences
Department of Human Resource Management
Rivers State University Port Harcourt
Obinna.geoffrey@ust.edu.ng

Jaja Inye Sunday
Faculty of Management Sciences
Department of Human Resources Management
Rivers State University Port Harcourt
inyejaja@gmail.com

Abstract
The present study investigated the correlation between talent management and the level of competitiveness exhibited by food and beverage companies operating in Port Harcourt, Rivers State, Nigeria. The investigation adopted a survey method. A total of 99 questionnaires were distributed to personnel working in the selected food and beverage companies. Out of these, 90 questionnaires were successfully collected and found to be relevant for the study. The Spearman rank-order correlation coefficient was employed for the purpose of data analysis. The results of the study indicate a significant and favourable correlation between talent management characteristics, specifically talent development and professional advancement, and the level of competitiveness observed in food and beverage companies located in Port Harcourt, Rivers State. The study suggests that line managers assume direct responsibility for the identification, selection, and recommendation of high-potential and high-performing individuals within their teams, with the aim of including them in the formal talent management programme. The organisation bears a significantly higher level of accountability in the processes of recruiting, supporting, onboarding, and inducting new employees, as well as in managing their performance and recognising their developmental requirements.
Keywords: Competitiveness, professional advancement, talent development, talent management, food & beverages firms

Introduction

The major rationale for the significance of talent management lies in its capacity to ensure the organization's proficiency in attracting and retaining crucial skills. According to Morton (2005), talent management plays a crucial role in fostering employee engagement inside the organisation. This highlights the second reason for its significance. Consequently, the amalgamation of these factors has emerged as a key influencer of achievement and a crucial focal point for organisations (Hughes & Rog, 2008).

Following the occurrence of the global financial crisis in 2008, businesses made the strategic decision to decrease their expenditures and prioritise their core competencies in order to achieve a more streamlined operational structure. Numerous organisations have initiated the adoption of enduring strategies aimed at recruiting and cultivating managerial expertise, alongside the implementation of comprehensive personnel management development approaches. Therefore, the implementation of a carefully created strategic plan has the potential to mitigate challenges faced by businesses and enhance their overall business performance (Rowland, 2011).

Yener, Gurbuz, and Acar (2017) conducted a study aimed at developing and validating a measurement instrument for talent management. In their research, they proposed six dimensions of talent management, namely talent planning (TP), workplace culture (WC), talent recruitment and retention (TR), talent development (TD), professional advancement (PA), and rewarding (RW). This study will employ talent development for the sake of ease.

The establishment of a learning and development culture necessitates its provision within and beyond the organisational boundaries. Therefore, the demand for talent is fulfilled through the implementation of development programmes. In order to address the self-actualization needs of brilliant individuals, it is imperative for organisations to establish an atmosphere that aligns with their demands and expectations. According to Moczydlowska (2012), this phenomenon has a favourable impact on both individual and organisational performance.

Understanding the different stages and phases of a career is crucial, especially when considering talent management strategies. This understanding allows for a recognition of the specific requirements and preferences of talented individuals, such as the types of learning programmes, reward systems, engagement techniques, branding strategies, and attraction tactics that can be utilised at different points in their career and life trajectories (Cron & Slocum, 1989). Hess and Jepsen (2009) highlighted the presence of age-related disparities in individual requirements, which are contingent upon one's career stage. It is vital to ascertain the distinct requirements pertaining to career development, advancements, and achievement at every step of one's career trajectory. During the initial phases, employees prioritise achievement, advancement, personal development, self-worth, and proficiency, as outlined by Hess and Jepsen (2009).

The significance of this study lies in the fact that talent plays a crucial role in the overall performance of organisations, as highlighted by Collins and Mellahi (2009). Nevertheless, the presence of this "talent" is limited (Kim & McLean, 2012). This phenomenon is demonstrated in a comprehensive analysis conducted on a sample of 40 multinational corporations, whereby it was observed that a notable dearth of capable individuals exists inside these organisations who possess the requisite skills and competencies to assume strategic leadership roles. As a result, corporate growth has been impeded (Collings & Mellahi, 2009).

Consequently, it is imperative for firms to develop policies aimed at attracting and cultivating talent. Furthermore, due to the escalating levels of competitiveness within organisations, the implementation of restructuring initiatives, and the widespread impact of globalisation, there has been an ongoing imperative to synchronise talent development endeavours with strategic business goals (Garavan, Carbery, & Rock, 2012). The purpose of this study is to assess the correlation between talent management and various aspects of talent development and professional/career progression in connection to competitiveness within the food and beverage industry in Rivers State, Nigeria.

Statement of the Problem

The contemporary business climate is marked by volatility, unpredictability, antagonism, complexity, and uncertainties, which can be attributed to shifts in consumer preferences, the process of globalisation, and the rapid advancements in technology. The difficulty, unpredictability, and complexity inherent in contemporary business environments are widely recognised as key contributing factors to the failure of numerous firms in Nigeria. The manufacturing sector in Nigeria, including the subsector of food and beverages, faces numerous issues, with power supply being a prominent issue.

Many organisations depend on emergency power generators in order to maintain uninterrupted operations, which contributes to increased expenses. In addition to the aforementioned factors, Raji (2018) highlights the presence of regulatory concerns, a variety of tax obligations, and challenges related to trade facilitation. The difficulties encountered by manufacturers are most effectively articulated by Frank Jacobs, the president of the Manufacturers Association of Nigeria, during his statements to the media in April 2018. The act of independently generating power for production can enhance competitiveness, as domestic production in this country tends to incur greater costs in comparison to other global regions.

Based on the findings of the National Bureau of Statistics (NBS, 2014), the food and beverage sector encounters several notable obstacles. These include insufficiency and irregularity in electricity supply, elevated tax rates, substandard infrastructure, and fluctuations in the availability of agricul-

tural inputs reliant on rainfall. The National Bureau of Statistics (NBS) identifies many notable strengths. These include the availability of low-cost labour, a robust local market, and the presence of some inputs that are domestically sourced and more cost-effective.

Raji (2018) asserts that the Nigerian government is actively endorsing the advancement of local content through several measures. These measures include the encouragement of sourcing raw materials and spare parts locally, the utilisation of public procurement to support the acquisition of domestically made goods (with specific targets for participation by micro, small, and medium enterprises), as well as the initiation of a comprehensive "Made in Nigeria" campaign. The government's strategy for fostering innovation and technology-driven sectors encompasses various measures.

These measures include offering fiscal incentives to encourage private investment in research and development (R&D), enhancing procedures for enforcing intellectual property rights, supporting the establishment of science parks and innovation hubs, creating an attractive fiscal and regulatory environment to attract private equity and venture capital investors, and promoting youth entrepreneurship and innovation through the "You-Win-Connect" programme. The primary objective of this study is to address the aforementioned issue through an empirical examination of the impact of talent management on the competitive performance of food and beverage companies operating in Rivers State, Nigeria.

Aim and Objectives of the Study

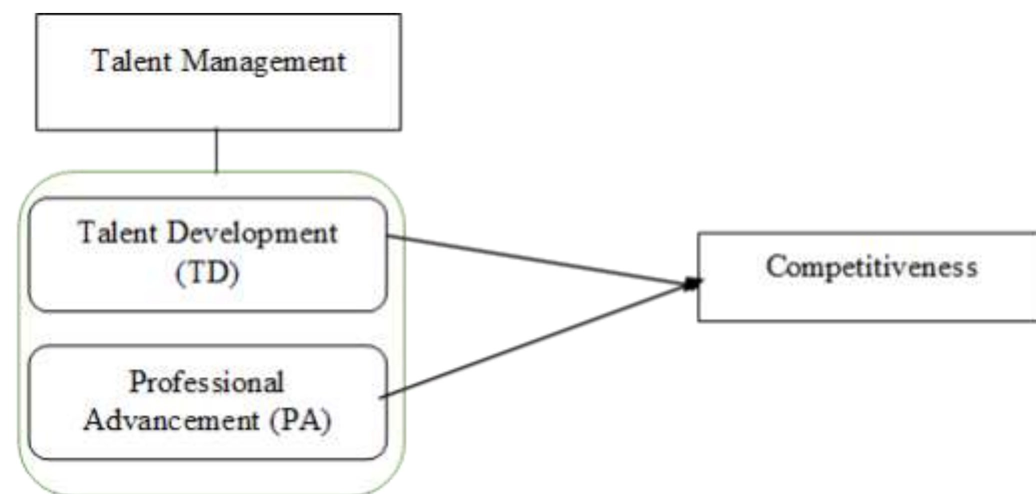
The main aim of the study is to determine the effect of talent management on competitiveness of food and beverages firms in Rivers State, Nigeria. Thus, the following specific objectives are stated as:

- To examine the relationship between talent development (TD) and competitiveness of food and beverages firms in Rivers State, Nigeria.
- To determine the relationship between professional advancement (PA) and competitiveness of food and beverages firms in Rivers State, Nigeria.

Research Hypothesis

Ho$_1$: There is no significant relationship between talent development and competitiveness of food and beverages firms in Rivers State, Nigeria.

Ho$_2$: There is no significant relationship between professional advancement and competitiveness of food and beverages firms in Rivers State, Nigeria.



Conceptualized by the researcher, 2019

Concept of Talent Management

The field of talent management is seeing significant growth, however, there exists a substantial academic discourse surrounding the conceptual framework, definition, context, and criteria pertaining to the implementation of talent management. Furthermore, there has been a limited assessment of the efficacy and worth of the organisation in both domestic and global settings. The concept of talent management came into prominence towards the latter of the 1990s. The concept of talent management was initially established by McKinsey consultants, which subsequently led to a surge in interest in this particular topic.

The phenomenon of global competition necessitates that organisations make significant decisions within an international framework, while the process of globalisation presents several obstacles in the realm of personnel management practises. As previously said, talent management is a subject of discussion within both academic and business spheres. Talent management is a subject of considerable discourse within both academic and business circles, with varying perspectives being put out. There exist varying perspectives about talent management, specifically in relation to internal and external approaches, as posited by prominent scholars (Festinga, Schafera, & Scullion, 2013).

Talent management encompasses various sub-disciplines, including selection, recruitment, leadership development, and performance management, as delineated in scholarly literature. Talent management is a structured endeavour aimed at ensuring the sustained presence of individuals in critical roles and fostering individual growth. Additionally, talent management is a systematic procedure that facilitates the efficient allocation of resources. This particular method prioritises internal aspects of the firm rather than external factors. Another researcher noted that talent management has to be handled according to the supply, demand, and flow of human capital as the engine.

Thirdly, certain perspectives prioritise the selection of skilled workers over considering the constraints of the organisation and the requirements of certain positions. Based on this perspective, individuals with exceptional abilities are regarded as valuable assets, exhibiting achievement within and beyond the organisational context. Hence, the establishment of a distinct organisational framework and human resource policies tailored to high-potential employees becomes imperative. In essence, it is imperative to use an individualised approach in managing high-potential individuals, taking into consideration the specific requirements of organisations. According to Guerci and Solari (2012), the resolution lies within the enduring objectives and prerequisites of human resources policy.

Talent development

As per the definition presented by Garavan et al. (2012), talent development pertains to the deliberate process of planning, selecting, and executing development strategies for the complete talent pool within an organisation. The primary objective is to ensure that the organisation possesses an adequate supply of talent, both in the present and future, to effectively meet strategic objectives. Additionally, it emphasises the importance of aligning development activities with the talent processes established within the organisation. The terms "talent management" and "talent development" have often been used interchangeably in the existing literature (Lewis & Heckman, 2006).

However, it is important to note that talent development is considered to be a constituent element of the broader talent management process (Garavan et al., 2012). It is worth mentioning that there is a scarcity of academic research specifically dedicated to talent development. Numerous executives inside businesses concur that the notion of talent development has emerged as a crucial factor in achieving organisational success (Kim & McLean, 2012; Cook & Macaulay, 2009). Nevertheless, there are several limitations associated with its execution. One of the contributing factors is a dearth of lucidity on the definition of talent, its extent, and the overarching objectives of talent cultivation inside businesses.

The justification for investing in talent development as a means of attaining a competitive advantage has been put forth by Garavan et al. (2012). Lepak and Snell (1999) conducted a study that demonstrated the comparative benefit of firms focusing on internal staff development. Nevertheless, the findings of Garavan et al. (2012) suggest that numerous organisations have seen little success with external talent acquisition techniques over an extended period of time. Therefore, it is imperative for firms to allocate resources towards the professional growth and development of their employees in order to effectively pursue the strategic objectives of the organisation. When undertaking this task, it is imperative to take into account the specific requirements of individuals, their unique learning styles, and their existing work practises.

According to Cook and Macaulay (2009), the implementation of talent development initiatives has been found to positively impact employee retention and motivation. The researchers claim that during periods of economic downturn, when the preservation of human resources is imperative, the cultivated talent within an organisation will propel it towards future success. As evidenced by the research conducted by Bettinger and Brown (2009), it can be observed that a notable proportion of American organisations, specifically 38%, prioritise the enhancement and cultivation of their staff even in times of economic downturns. Hence, it is imperative for firms to adopt a proactive approach in order to navigate the forthcoming scarcity of specialised professionals and highly qualified and talented workforce.

According to Potential.com (2012), talent development involves the preparation of employees to achieve success in both their present and future endeavours. The implementation of this strategy provides the business with a competitive edge, enhances operational effectiveness, and contributes to the retention of employees. According to Stewart and Rigg (2010), the use of talent development is crucial in aligning with corporate strategic objectives, since it facilitates staff growth through learning initiatives.

Professional advancement

According to McDaniels and Gysbers (1992), professional or career advancement encompasses a comprehensive array of psychological, sociological, educational, physical, economic, and chance aspects that collectively influence an individual's career trajectory throughout their lifespan. According to Hall & Associates (1986), professional development can be seen as the outcomes that result from the exchange of information between individuals engaging in career planning and institutions using career management methods.

Baer, Flexer, Luft, and Simmons (2008) argue that professional advancement is a lifelong journey that involves several stages of personal development, including childhood growth and change, formal career education in school, and ongoing maturation processes that continue throughout a person's working life and into retirement. According to Schreuder and Coetzee (2006), professions encompass various stages, each presenting individuals with distinct challenges. As stated by Stevens (1990), the prevalent phenomenon of individuals pursuing many occupations during their adult lives necessitates the need for them to assess, make personal choices, and execute career transition strategies on multiple occasions throughout their lifespan.

It is the purpose of all quality businesses to provide their employees with excellent opportunities to improve, both individually and as professionals (Baer et al., 2008). According to Greenhaus (2003), career advancement is described as a sequential process wherein individuals acquire pertinent information regarding their values, skills, strengths, and weaknesses. They then proceed to establish a career objective and employ career strategies aimed at enhancing the likelihood of attaining the set career goals.

Concept of Competitiveness

An organisation can achieve a competitive advantage by implementing strategic initiatives or acquiring resources that enhance its market position relative to its competitors. The previous century witnessed the prevalence of management ideas that have facilitated firms in attaining a competitive edge over their rivals. The topic of competitive advantage and its attainment has been a focal point of scholarly discourse over the past few decades, particularly within the realm of strategic management (Furrer, Thomas, Goussevskaia, & Anna, 2008; Keh, Nguyen, & Ng, 2007; Jia, Zhao, Yu, & Wang, 2013).

The dynamic environment in which the organization finds itself today where the customers demand more from the corporate organization with high level of speed the corporate organization are adopting strategies that can increase their competitive advantage over time (Jia et al., 2013). The application of strategic management has been supported by experts in various organisations (Ikaharehon & Briggs, 2016). The effective acquisition, distribution, and processing of resources by an organisation are contingent upon the implementation of strategic management practises. According to the research conducted by Abosede, Obasan, and Alese (2016), strategic management has a crucial role in improving organisational performance, offering effective strategies to meet environmental difficulties, facilitating change management, and effectively managing human resources challenges.

Theoretical Framework

Maslow theory

Maslow's (1908–1971) theory of need hierarchy categorises human requirements into five distinct categories, with an emphasis on prioritising the satisfaction of physiological demands as the initial step. An company contributes to the fulfilment of employee demands through the provision of competitive compensation and a favourable work environment (IIes, Preece, & Chuai, 2008; Jiang & Xiao, 2012). The significance of Maslow's theory lies in its ability to direct focus towards employees by creating a conducive workplace. According to Jing and Avery (2011), employees emphasise the importance of an organisation that provides them with opportunities to improve their abilities and prioritises their well-being and growth requirements. This hypothesis elucidates the factors that contribute to the attraction and retention of employees. In order to effectively attract and retain top talent, an organisation must possess a strong brand, demonstrate attentiveness towards employees' requirements, and utilise a competitive approach to fulfilling those demands.

The capability-based view

Nieves and Haller (2014), are of the view that capabilities and resources complement each other, noting that while resources are sources of capabilities, capabilities are rather the major sources of competitive advantages. A similar view was shared by Amit and Shoemaker (as cited in Aminu & Mahmood, 2015) when the author argued that organization resources does not constitute its competitive advantages rather its capabilities that determines its competitive abilities. The significance of capabilities and their role in enabling a firm to achieve a competitive advantage through the effective execution of various tasks in organisational contexts has been affirmed by Haas and Hansen (2005) as well as Pal, Torstensson, and Mattila (2014). According to Aminu and Mahmood (2015), capabilities are defined as a firm's ability to effectively utilise resources through the implementation of organisational processes in order to achieve a desired outcome, as opposed to simply possessing resources. It includes information based, "tangible or intangible processes that are firm-specific and developed over time through complex interaction among the firm's resources".

Empirical review

Yllner and Brunila (2013) carried out a study on talent management and the manner in which companies work towards retaining and managing technical specialists in a technical career. The researchers found out that talent management is of great importance especially in the ever changing contemporary world as a strategic and competitive tool. In addition, when associated with corporate strategy, talent management becomes a motivating factor in realizing greater profits in the corporate world. Qualitative method was employed. The study was contextualized on oil and gas industry based in Norway.

A study on the effect of talent management centered on the performance of organizations was carried out in the listed companies in the Nairobi Securities Exchange in Kenya (Mwangi, 2009). The study was focused on an in-depth analysis of the impact of talent attraction, the retention of talents, learning and development and the management of careers based on the performance of the organizations listed in NSE in Kenya. The findings of the study were that there was a positive immense impact between talent management and the performance of organizations. The study suggests that if talent management is heavily put into practice, the results will be a performance that is of superior significance in the organization world.

Kahinde conducted a research study in Nigeria with a focus on talent management. The findings of the study indicate a strong positive association between personnel management, profitability, and return on investment. The correlation coefficient between the index of talent management (3.72) was found to be higher than that of the return on investment (3.62). The aforementioned phenomenon can be attributed to the Nigerian population's inclination towards prioritising profit generation in all aspects, including talent management (Saleem, 2006).

According to a study conducted by CIPD, the effectiveness of learning and development practises was examined, with a particular focus on in-house development courses and coaching delivered by line managers, which emerged as the most prominent strategies. Additional examples that were identified include e-learning. Furthermore, the learning process was overseen by senior management and the human resources department. This study involved conducting a survey among several organisations. According to Nzuve (2007), top managers have highlighted leadership abilities, people management skills, and business awareness as the primary areas necessary for achieving corporate objectives.

Identification of Research Gap

Numerous research has established a correlation between talent management and organisational success. Nevertheless, there is a lack of similarity-variable components that are commonly employed in both personnel management and competition, particularly within the food and beverage industry in Rivers State, Nigeria.

Methodology

The study employed a cross-sectional survey strategy, which falls under the category of quasi-experimental research design. This approach aims to assess several factors within a single time frame. A research population often refers to a substantial assemblage of individuals or items that serves as the primary subject of investigation in a scientific inquiry. Conducting study is advantageous for the general populace (Explorable, 2009). The study's population will consist of the management personnel from ten (10) specifically chosen food and beverage companies located in Port Harcourt, Rivers State. The determination of the sample size was conducted using Taro Yamane's formula, with a significance level of 0.05, corresponding to a confidence level of 95%.

The selection of these example firms was based on criteria such as accessibility and efficient performance, as they have been assessed and recommended within the state. The cumulative number of house managers is expected to be up to 132. Hence, by employing the Taro Yamane Formula, we find ourselves in a scenario where:

n =?
N = 132
1 = Constant unit
e = 0.05

$$n = \frac{132}{1 + 132(0.05)^2}$$

$$n = \frac{132}{1 + 132(0.0025)}$$

$$n = \frac{132}{1 + 0.3575}$$

$$n = \frac{132}{1.3575}$$

$$n = 99$$

This indicates that a total of 99 questionnaires have been distributed, as previously described.

The determination of the sample size for each firm is accomplished by employing Bowley's (1964) population allocation formula.

$$nh = \frac{nNh}{N}$$

Where nh = unit allocation for each firm
n = total sample size
Nh = number of management staff in each firm.
N = population size

For example, the sample of Genesis food Nig. Ltd

$$Nh = \frac{16 \times 99}{132}$$

$$= 12$$

Table 1: The Fast Food Sample Size

S/N	Firms	Number of Management	Sample Size
1	Pokobros Foods & Chemical Industries Limited	8	6
2	Nigeria Bottling Co Plc	17	12
3	Tatafish Foods Nig. Ltd.	5	4
4	Port Harcourt Flour Mills Limited	8	6
5	Pabod Breweries Ltd	10	8
6	3nity Foods	25	18
7	Chicken Republic	15	11
8	Dripples Limited	18	14
9	Genesis Food Nig Ltd	16	12
10	Riv Biscuits Co Nig Ltd	10	8
	Total	**132**	**99**

Source: Port Harcourt chamber of commerce, industry, mines and agriculture (PHCCIMA)

The researcher utilised Spearman's rank order correlation coefficient to study the data collected from the questionnaire, allowing for an examination of the relationship between Talent Management and Competitiveness. The Statistical Package for Social Sciences (SPSS) version 22 was utilised for conducting all statistical analyses. The decision criteria for Spearman's rank order correlation coefficient are as follows: The null hypothesis should be rejected when the Spearman's rho coefficient exceeds the critical value (CV).

The null hypothesis is not rejected if the Spearman's rho coefficient is less than or equal to the crucial value.

Criteria	**Decision**
$r_s > CV$	Reject the null hypothesis
$r_s \leq CV$	Fail to reject the null hypothesis

Result and Discussions

A total of 99 questionnaires were delivered to the selected food and beverage enterprises, which were chosen as representatives of the projected sample population of 132 for this study. A total of ninety (90) copies were received, meeting the criteria of being usable and correctly filled, thus constituting the sample size employed in the study.

Table 2: Correlation Output (Talent Development and Competitiveness)

Correlations			
			Competitiveness
Spearman's rho	Talent Development	Correlation Coefficient	.898**
		Sig. (2-tailed)	.000
		N	90
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Research data, 2021 (SPSS-22 output)

Table 2 presents the findings of the analysis conducted to examine the relationship between talent development and competitiveness in a sample of food and beverage institutions in Rivers State. The correlation coefficient (rho) was determined to be 0.898, indicating a strong positive association. Additionally, the p-value was found to be 0.000, suggesting that this association is statistically significant. The results indicate a statistically significant and positive correlation between the variables (where ** denotes significance at the 0.01 level and $p < 0.05$). Consequently, adhering to the criterion for rejecting the null hypothesis at a significance level of $p < 0.05$, we reject the null hypothesis and affirm that there exists a significant association between talent development and the competitiveness of food and beverage companies in Rivers State, Nigeria.

Table 3: Correlation Output (Professional Advancement and Competitiveness)

Correlations			
			Competitiveness
Spearman's rho	Professional Advancement	Correlation Coefficient	.957**
		Sig. (2-tailed)	.000
		N	90
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Research data, 2021 (SPSS-22 output)

Table 3 presents the findings of the analysis conducted to examine the relationship between professional advancement and competitiveness in a sample of food and beverage establishments in Rivers State. The results indicate a strong positive correlation, with a correlation coefficient (rho) of 0.957 and a statistically significant p-value of 0.000. The results indicate a statistically significant and positive correlation between the variables (where ** denotes significance at the 0.01 level and $p < 0.05$). Consequently, following the established threshold for rejecting the null hypothesis at $p < 0.05$, we reject the null hypothesis and affirm that there exists a significant association between the advancement of professionals and the competitiveness of food and beverage companies in Rivers State, Nigeria.

Table 4: Decision Table for results of the analysis

Hypotheses	Test Result	Decision
Ho_1: There is no significant relationship between Talent Development (TD) and Competitiveness (CT) of Food and Beverages Firms in Rivers State, Nigeria	Rho = 0.898 ($P < 0.05$)	Accept Alternate Hypothesis
Ho_2: There is no significant relationship between Professional Advancement (PA) and Competitiveness (CT) of Food and Beverages Firms in Rivers State, Nigeria.	Rho = 0.957 ($P < 0.05$)	Accept Alternate Hypothesis

Discussion of the Findings

The study's findings indicate a favourable and significant relationship between talent development and the competitiveness of food and beverage enterprises in Rivers State, Nigeria. This finding aligns with the research conducted by Cook and Macaulay (2009), which suggests that talent development initiatives have a positive impact on both staff retention and motivation. The authors stated that during periods of economic downturn, when the preservation of human capital becomes imperative, the cultivated talent within an organisation will propel it towards future success. According to Stewart and Rigg (2010), the utilisation of talent development is advocated as a means to align with the strategic objectives of enterprises, as they foster employee growth through the process of learning. As a result, it serves to enhance the competitive edge of the company and assumes a pivotal position in the development of strategic human resources.

According to Neal and Sonsino (2012), there is a contention that the largest corporations are no longer synonymous with being the most superior entities. In the context of globalisation, the corporate landscape is characterised by fluctuating characteristics such as size, market scale, and innovations. In order to maintain relevance in the global market, businesses must align their learning and talent development plans accordingly. Relying solely on local resources to cater to a global market may prove to be ineffective. Hence, it is imperative to cultivate and enhance local talent to effectively operate within the global marketplace.

When talent development is effectively handled, it has the potential to enhance the overall effectiveness of an organisation. The primary objective of talent development is to provide a conducive culture, support system, and environment that facilitate both creative invention and disciplined processes, hence fostering the generation of innovative ideas. According to a survey conducted by the School of Management at Cranfield, a majority of firms, namely 60%, expressed the view that talent development is crucial in order to achieve sustainable competitive advantage for their organisation (Cook & Macaulay, 2009). However, the survey also revealed that a smaller proportion, namely 49% of businesses in the United Kingdom, were actively implementing talent development programmes.

The research findings indicate a notable positive correlation between professional growth and competitiveness. This phenomenon elucidates the observation that as employees progress in their respective careers or professions, they often acquire a distinct advantage over their competitors. This finding supports the research conducted by Baruch and Peiperl (2000) as well as Nijhof and De Jong (2000), who both identified a noteworthy correlation between employees and their perceptions of career progression. Many prominent firms frequently use career planning initiatives in order to enhance the alignment between the individual's aspirations and the strategic requirements of the business (Bergman, 2006). The aforementioned practises encompass career training, job rotation, performance appraisal, labour market information, self-assessment, mentorship, succession planning, job posting, and counselling. These practises are implemented with the intention of fostering dedication

and loyalty towards the firm (Gilley & Eggland, 1989).

Conclusion

It is widely recognised that talent management is a highly beneficial best practise to implement inside an organisation, based on anecdotal evidence. It is considered optimal for an organisation to possess a well-established and consistent methodology for quantitatively determining the actual economic worth of investing in talent management operations. This practise has significant significance in accurately assessing the financial impact of such investments. The rationale behind investing in specific assets or allocating resources towards company activities is frequently supported by the potential financial and economic gains that might be achieved. These monetary returns are readily measurable and observable. Hence, the implementation of talent management is advantageous due to its capacity to provide accurate assessments of the realised economic value. This capacity has the potential to enhance the level of acceptance and readiness to allocate resources towards high-quality personnel management initiatives and resources.

Recommendations/ Practical Implications

Role players are the primary stakeholders within a company entity who have the responsibility for the advancement, strategizing, execution, and enhancement of talent management initiatives within the organisational framework. Hence, it is imperative to establish essential performance indicators for all individuals involved in talent management endeavours, as well as to implement incentive structures that foster exemplary performance.

Talent Pools

Highly skilled personnel are responsible for actively engaging in activities that enable them to obtain the essential skills, information, and experience required to facilitate their career advancement goals. Individuals must demonstrate agility, flexibility, and mobility in their work methods and behaviours. In addition, it is imperative for highly skilled personnel to engage in challenging assignments, participate in managerial and leadership enhancement initiatives, and undertake occasional travel. Sustained high performance holds significance as it guarantees individuals' inclusion in the pool of talented individuals, while also fostering their career advancement and professional development.

Leadership

The primary responsibility for the development of strategic initiatives that drive the business and their subsequent dissemination to the implementers lies with the organisational leaders. These strategic objectives involve giving direction to human resource leadership in aligning talent management strategy and techniques with those of the company. Additionally, it is imperative for the leadership team to establish a system of accountability to ensure that management is held responsible for the successful implementation of talent management programmes. Leadership must ensure the efficacy of talent management strategies, their alignment with company objectives, and their contribution to the business imperatives.

Human Resource

The individual holding the position of senior human resource executive, within the Human Resource Management Department, bears the responsibility of formulating the talent strategy in accordance with the overall business strategy. Additionally, they provide guidance to the management and leadership team in the effective implementation of talent management tools, systems, and procedures. It is anticipated that human resources executives would assume the role of leading and facilitating talent review meetings, as well as conducting audits within the company. These activities are aimed at promoting the implementation of talent management aspects and tactical plans. Organisations must extend their efforts to incorporate talent management activities, tasks, and deliverables into the performance management process through the utilisation of key performance indicators. In order to promote and reinforce commitment and implementation, it is imperative to provide rewards to the role players when the key performance indicators of talent management are achieved.

References

Abosede, A. J., Obasan, K. A., & Alese, O. J. (2016). Strategic management and small and medium enterprises development: A Review of Literature. *International Review of Management and Business Research*, 5(1), 315-337.

Aminu, M. I., & Mahmood, R. (2015). Mediating role of dynamic capabilities on the relationship between intellectual capital and performance: A hierarchical component model perspective in PLS-SEM path modeling. *Research Journal of Business Management*, 9(1), 443–456.

Baer, R. B., Flexer, R. W., Luft, P., & Simmons, T. J. (2008). *Transition planning for secondary students with disabilities*. New Jersey: Pearson Education Inc. 109-112.

Baruch, Y., & Peiperl, M. (2000). Career management practices: An empirical survey and implications. *Human Resource Management*; 39(3): 347–366.

Bergman, M. E. (2006). The relationship between affective and normative commitment: review and research agenda, *Journal of Organizational Behaviour*, 27(4): 645–663.

Bettinger, J., & Brown, S. L. (2009). 'The Talent Vacuum—Keeping Your Best Talent in a Downturn'. *AACE International Transactions, Dev*. 04.1-Dev.04.11 *(4) (PDF) learning and talent development: a review in context*. Retrieved from https://www.researchgate.net/publication/2826582

Collins, D., & Mellahi, K. (2009). Strategic talent management: a review and research agenda. *Human Resource Management Review*, *19(3):* 304-313.

Cook, S., & Macaulay, S. (2009). Talent Management: Key Questions for Learning and Development. *Training Journal*, 2(3), 37- 41.

Cron, W. L., & Slocum, J. W. (1989). The career stages on salespeople's job attitudes, work perceptions, and performance. *Journal of Marketing Research*, 23(2), 119–129.

Festing, M., Schaefer, L., & Scullion, H. (2013). Talent management in medium-sized German companies: an explorative study and agenda for future research. *International Journal of Human Resource Management*, 24(9): 1872-1893.

Furrer, O., Thomas, H., Goussevskaia, Y., & Anna, H. (2008). The Structure and Evolution of the Strategic Management Field: A Content Analysis of 26 Years of Strategic Management Research. *International Journal of Management Reviews*, 10(1), 1-23.

Garavan, T. N., Carbery, R., & Rock, A. (2012). Mapping talent development: definition, scope and architecture. *European Journal of Training and Development*, 36(1), 5-24.

Gilley, J. W., & Eggland, S. A. (1989). *Principles of human resources development*. New York: Addison-Wesley.

Greenhaus, J. H. (2003). *Career dynamics*. Handbook of psychology volume twelve: Industrial and organisational psychology, Hoboken (USA): John Wiley & Sons. (pp. 519-535).

Guerci, M., & Solari, L., (2012). ''Talent management practices in Italy – implications for human resource development'' *Human Resource Development International*, 15(1), 25–41.

Haas, M. R., & Hansen, M. T. (2005). When using knowledge can hurt performance: the value of organizational capabilities in a management consulting company. *Strategic Management Journal*, 26(1), 1-24.

Hall, D., & Associates (1986). *Career development in organizations (1st edition)*. Jossey- Bass Publishers.

Hess, N., & Jepsen, D. M. (2009). Career stage and generational differences in psychological con-

tracts. *Career Development International*, 14(3), 261–283.

Hughes, J., & Rog, E. (2008). Talent management: A strategy for improving employee recruitment, retention and engagement within hospitality organization. *International Journal of Contemporary Hospitality Management, 20(3):* 743-757.

Iles, P., Preece, D., & Chuai, X. (2008). Is talent management just “old wine in new bottles”? The case of multinational companies in Beijing. *Management Research News*, 31(12), 901-911.

Ikareharehon, J. L., & Briggs, J. I. (2016). The impact of strategic factors on the performance of small scale enterprises in Nigeria: A Case Study of Selected SMEs in Abuja. *International Journal of Humanities and Social Science*, 6(2), 140-149.

Jia, J., Zhao, X., Yu, X., & Wang, G. (2013). Will entrepreneurial orientation help to improve corporate performance: A study based on the mediating effects of competency of top managers in entrepreneurial-oriented companies? *Nankai Business Review*, 16(2), 47–56.

Jiang, Z., & Xiao, L. (2012). *Total reward strategy: a human resource management strategy*. Going with the trend of the time, Yeungnam University.

Jing, F. F., & Avery, G. C. (2011). Missing links in understanding the relationship between leadership and organizational performance. *International Business & Economics Research Journal* (IBER), 7(5), 45-67.

Keh, H. T., Nguyen, T. T. M., & Ng, H. P. (2007). The effects of entrepreneurial orientation and marketing information on the performance of SMEs. *Journal of Business Venture*, 22(2), 592 –611.

Kim, S., & McLean, G. N. (2012). 'Global Talent Management: Necessity, Challenges, and the Roles of HRD'. *Advances in Developing Human Resources*, 14(4), 566-585.

Lepak, D. P., & Snell, S. A. (1999). The human resource architecture: Toward a theory of human capital allocation and development. *Academy of Management Review*, 24(1), 31-48.

Lewis, R. E., & Heckman, R. J. (2006). Talent management: A critical review. *Human Resource Management Review*, 16(2), 139-155.

McDaniels, C., & Gysbers, N. (1992). *Counselling for career development*. (1st ed.). San Francisco: Jossey-Bass Publishers. Pp. 41-52.

Moczydlowska, J. (2012). Talent Management: Theory and Practice of Management. The Polish Experience. *International Journal of Business Management and Economic Resources*, 3(1), 432-438

Morton, L. (2004). *Integrated and integrative talent management:* A strategic HR framework, Research Report R-1345-04-RR, The Conference Board, New York, NY.

National Bureau of Statistics (NBS) (2014). *National Accounts Statistics of Nigeria*. Abuja: National Bureau of Statistics.

Neal, A., & Sonsino, D. (2012). Seven Career-Limiting Myths for Talent Management Pros. *Training and development*, 66(8), 70-72.

Nieves, J., & Haller, S. (2014). Building dynamic capabilities through knowledge resources. *Tourism Management*, 40(3), 224–232.

Nijhof, W. J., de Jong, M. J. (1998). Employee commitment in changing organizations: An-exploration. *Journal of European Industrial Training*; 22(6), 243-248.

Nzuve, S. (2007). *Elements of organizational Behaviour*. University of Nairobi press.

Pal, R., Torstensson, H., & Mattila, H. (2014). Antecedents of organizational resilience in economic crises—An empirical study of Swedish textile and clothing SMEs. *International Journal of Production. Economics*, 14(7), 410-510.

Potential.com (2012). SME Evolution Program Fall 2012 –Talent Development ‘[online] available from<http://www.potential.com > [06 April 2014] [accessed Oct 20 2019].

Raji, R. (2018). *Manufacturing in Nigeria: Status, Challenges and Opportunities*. Premium Times. Accessed from https://opinion.premiumtimesng.com/2018/09/29/manufacturing-in-nigeria-status-challenges-and-opportunities-by-rafiq-raji/ on the 3rd September, 2019.

Rowland, M. (2011). How to cement a diversity policy: The key role of talent development? *Human Resource Management International Digest, 19*(5), 36-38.

Saleem, N. A. (2006). *Principles and Practice of management simplified*. Nairobi, Saleemi Publica-

tion.

Schreuder, A., & Coetzee, M. (2006). *Careers: An organizational perspective*. Lansdowne: Juta & Co. pp. 39-56.

Stewart, J., & Rigg, C. (2010). *Learning and Talent Development*. London: CIPD

Stewart, J., & Harte, V. (2010). The implication of talent management for diversity training: an exploratory study. *Journal of European Industrial Training*, *34*(6), 506-518.

Stevens, P. (1990). *Career transitions*: The Australian Perspective. Sydney: CWC. Pp. 121- 134.

Yener, M. I., Gurbuz, F. G., & Acar, P. (2017). Development and validation of a talent management measurement instrument. *Journal of Business, Economics and Finance*, 6(3), 233-245.

Yllner, E., & Brunila, A. (2013). *Talent Management* – Retaining and Managing Technical Specialists in a Technical Career. Master of Science Thesis KTH Industrial Engineering and Industrial Management, Stockholm.

Change Management Capability and Competitiveness of Private Hospitals in Rivers State

IGWEH Florence Konye PhD
Department of Business Administration
Faculty of Management Sciences
University of Delta Agbor, Delta State

Egbule A. C. Solomon PhD
Department of Business Administration
Faculty of Management Sciences
BELLARKS Polytechnic Kwale, Delta State

Abstract
This study looked at the connection between private hospitals' competitiveness and their ability to handle change in Rivers State, Nigeria. For the study, a cross-sectional research design was used. Our respondents were management staffs (medical directors and doctors) of these organizations (a total number of fifty-eight management staffs) constituting the population of our study. From the field survey, we retrieved and analyzed all fifty-eight (58) copies of questionnaire from the participants; Kendall's tau_b correlation coefficient (*tb*) correlation coefficient statistical tool was used to determine the relationship existing between the variables while the p-value was used to test hypotheses developed for the study. The findings revealed that the dimensions of change management namely; leadership style, empowerment of change program, and reward and embedment of change exhibited significant relationship with competitiveness. It was then concluded that change management capability will ultimately enhance the competitiveness of these organizations taking apt cognizance of firm's organizational culture. This necessitated recommendations for the firms (private hospitals); leadership styles that will enable change programs should be adopted, resources needed to successfully embark on change programs should be made available and successful change initiatives should be embedded and adequately rewarded so that favorable organizational outcomes are achieved.
Keywords: Change management capability, leadership style, empowerment of change programs, reward and embedment of change programs and competitiveness

Introduction

The modern business environment is clogged with increased level of competitiveness as a result of recent issues on technological advancements, labor related issues, increased cost of operations, market variations and attendant realities of globalization and as such business organizations are required to continually keep their strategies flexible to accommodate and adapt to changes posed by these current realities within the environment of business (Fendel & Frenkel, 2005).Therefore, private health institutions have a fair share of this competitive pressure even such as prevalent within their designated industry; to survive and thrive, the current 21st century organizations will have to make greater efforts to acquire or improve constantly its competitive positions as higher levels of growth and performance will be derived by such attempts (Guzmán, Gutiérrez, Cortes & Ramírez, 2021).

Every business organization as an open system operates and interacts with other constituent parts within a larger system which delineates the arena of business which is constantly in a state of flux and as such strategies and policies remain malleable to suit this ever changing state (Cole, 2005).The inefficiencies associated with the service offerings of the Nigerian public health institutions have resulted to an influx of their private counterparts; thus with private ownership and management, efficiency and effectiveness is enhanced however not without the attendant issues of competitiveness.

The Latin term "competer"-from which the English word "competitiveness" is derived-means "participation in a business rivalry for markets" (Deniz et al., 2013). Competitiveness however becomes relevant in the face of competition; so competition precedes competitiveness. Scherer and Ross (1990) hold that competition in the business literature is regarded as a conscious striving against other business firms for patronage… for potentially incompatible positions. Similarly, competition was described by 1987 as rivalry between people (or groups of people) or nations that happens whenever two or more parties try to get something that neither of them can.

As a management or economics concept, competition is preferred to conventional economic measures like profitability, productivity, or market share, which are thought to be insufficient to support continual performance improvement (Lu, 2006). According to Buckley et al. (1988), the notion provides for the perception of potential and the enhancement of managerial procedures in addition to reflecting historical performance. Traditional indicators can only capture quantitative historical data.

For providing customers with greater value and satisfaction than their competitors, firms must be operationally efficient, cost effective, and quality conscious (Johnson, 1992; Hammer & Champy, 1993). Some studies define competitiveness using productivity, which is partially consistent with Porter's (1990) claim that productivity is the actual basis of competitive advantage. Porter defined organizational competitiveness as productivity growth that results in lower costs or differentiated goods that fetch higher prices.

The private hospitals in Nigeria are not left out of the organizations change process, the health of the citizen of any country depends to a large extent on the quality of health sector of such country, the public sector are basically established to provide social health service to the citizens by the government enhance competition is invisible but on the other hand the private sector are much and are more assessable to the people than the public hospitals and their existence is base on profit-making, and are owe by private persons who intent is not just to save lives but also to make money and to achieve this one has to be on top of the game in the industry through groaning ones organization to be able to blend with change that is the only constant thing globally.

Change management capability is that stage where organization members embrace change more readily and successfully, are able to adapt swiftly to market change, and been able to welcome strategy initiative, adopt new technology quickly and with less productivity(Prosci, 2005). He sees change management capability as the third level of change management, and that the first level as the point at which the need for the change is noticed and implemented while the second stage which is organization change management has to do with the process, method which the change is design and implemented to achieve the desired result for implementing the change in the first place.

For many organizations, developing organizational change management capability and capacity can be a 5 to 10 year journey. It necessitates work, commitment, goal-setting, and preparation. Due to our expertise in change management, CMC regularly interact with organizations who are excited by the idea of building change capabilities but soon discover that they do not yet have the infrastructure in place to make it happen. As organizational leaders rather than external specialists have assumed increasingly active roles in bringing about change, managers have, in general, grown more at ease with planned change (Aiken & Keller, 2021; Kotter & Cohen, 2019; Nadler, 1988). In fact, a growing number of managers are adept at responding to outside factors, imagining a desired future state, and carrying out the ensuing "plan" to accomplish that clearly stated goal. However, in this setting, change is primarily seen as linear and mechanistic, as a succession of distinct and occasionally traumatic events that must be managed in order for the organization to achieve its objectives.

Given the flood of changes that an increasing number of enterprises are currently facing, but change is typically seen as sequential and mechanistic, as a series of distinct and occasionally traumatic events that must be managed if the organization is to succeed. To succeed in environments that are changing quickly, however, requires experimentation, improvisation, and the capacity to deal with unforeseen events and unintended consequences (Wheatley, 1992; Gersick, 1991). Given the onslaught of changes that an increasing number of organizations are now facing, this carefully planned approach is quickly becoming insufficient. Companies must essentially maintain constant mobility, sometimes quick and sometimes slow, with little moments of consistency in between (Leana & Barry, 2020) – toward a largely unknown, emergent future state.