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Administrative Capacity and Service Quality of Local Governments in Oyo State, Nigeria

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Abstract

Anchored on the Dynamic Capability theory, the study assessed the interactions of administrative capacity and service quality of six Local Governments in Oyo State, Nigeria. A mixed method involving qualitative and quantitative data collection was adopted with 384 people from the six selected Local Governments in Oyo State, Nigeria were studied. Multiple linear regression analysis was used to test the hypotheses in the study. The findings revealed that administrative capacity significantly has a positive but weak significant effect on the service quality of selected Local Government areas in Oyo State, Nigeria. The study concluded that the government at the Federal and State levels must appreciate the local government's legislative obligations to the grassroots economy. More so, the local government's capability to deliver the dividend of democracy lies in its administrative and financial autonomy. The study recommended that the leadership of the local government in Oyo State need to provide funds to innovate the local government offices and encourage innovation in terms of policies that can enhance service quality for the citizens of Oyo State, Nigeria.

Keywords: Administrative capacity, service quality, local government authority.

Introduction

Local government administration is critical in ensuring the efficient provision of public amenities to large rural populations. Local government is an administrative organization at the local level that promotes decentralization, national integration, governance efficiency, and a sense of belonging. It is a type of administrative entity found worldwide (Majekodunmi, 2021). Many academics believe that the purpose of local governments is to encourage local participation in governance, promote self-government, and encourage people to find solutions to problems in their environment and for their well-being through the formulation and implementation of relevant and adequate policies (Abe and Omotoso, 2014). As a result, the local government must have the administrative capacity to ensure that the functions for which it was established are carried out. The ability to effectively implement policy plans and programs,

in particular, is critical to the success of the grassroots sector. Indeed, having a local government authority capable of optimally aligning resources with actions and implementing designed policies is widely regarded as a critical factor in any State's quality of government and the success of its developmental efforts (Agba, Akwara and Idu, 2017). Effective and rigorous implementation and the ability to deliver on policy promises are key factors that distinguish high-performing local government authorities from those that perform mediocrely (Bolatito and Ibrahim, 2016).

In Nigeria's sociopolitical context, with its multiplicity of culture, diversity of languages, and differentiated needs and means, the importance of such an organization in fostering the needed national consciousness, unity, and relative uniformity, as well as preservation of peculiar diversities, cannot be overstated. The Federal Republic of Nigeria's 1999 constitution (as

amended) recognizes three administrative and governance divisions at the federal, state, and local government levels. Sections 2 and 3 of the constitution, which lists the number of states and local governments in the federation, refer to Nigeria as one indivisible and indissoluble sovereign state. Section 7 of the constitution states that "the system of democratically elected local government councils is guaranteed under this constitution; and accordingly, the government of every state shall ensure their existence, subject to section 8 of this constitution, by providing for the establishment, structure, composition, finance, and functions of such councils. However, providing services to the people at the grassroots level remains an important component of Nigeria's establishment of this tier of government. Service delivery refers to the provision of social or public goods that benefit citizens' socioeconomic well-being.

Local government, as the lowest and most accessible level of government to citizens, is strategically positioned to serve as an effective tool for development, service delivery, and democratic participation. However, there have been criticisms of the local government over the years that it has not served as a service delivery agent. Poor service delivery, as reflected in poor service quality, operational efficiency, engagement, poor responsiveness, and bad governance, continues to be a major challenge in most Nigerian local governments. Another source of concern is local government administrative capacity to deliver value to the grassroots economy. Administrative capacity within the political space is the ability to improve the welfare of the governed, and the citizens, by providing appropriate services, and facilitating job creation, schooling, and health care, to name a few. When all public administrative resources are fully utilized, it is the maximum sustainable level of public output. However, Oyo State's local governments have yet to live up to expectations due to weakened administrative capacity caused by a lack of political, financial, and administrative autonomy.

Scholarly writings have been documented to

support the importance of administrative capacity, primarily through the qualitative method and an exploratory research approach. These studies have concentrated on organized private and public organizations, financial and administrative reforms, and personnel management issues in research contexts other than those proposed in this study. As a result, empirical discussion on the relationship between administration capacity and service quality of local governments in Oyo State has largely gone unexplored. This gap in the literature limits the broad conceptual, and empirical understanding of administrative capability influences local government service quality in Oyo State. Therefore, the study aims to investigate administrative capacity's effects on service quality at local governments in Oyo State.

Literature Review

Theory and Hypotheses Development

The Dynamic Capability Theory (DCT) is rooted in the need for institutions to possess the knowledge, skill, and abilities (KSA) to survive and thrive in a changing environment. The concept of dynamic capability was conceived by David J. Teece; Gary Pisano; Amy Shuen (Teece *et al.*, 1997). Dynamic capabilities indicate an entity's ability to integrate, create, and reconfigure internal and external capabilities to handle the fast-changing environment (Branden burger and Stuart, 2018; Samsud and Ismail, 2019). Teece's submission implies that dynamic capabilities enable an institution to respond instinctively to changing and turbulent environments (Christensen, 2020). However, the key assumptions of Dynamic Capability Theory (DCT) are that institutions in the same industry perform differently because they have diverse types of resources and capabilities. The institution's distinctive, scarce, and imitable resources have resulted in competitive advantage and firm expansion. Three, the process of preserving a competitive advantage is both endless and dynamic. Four, in order to remain competitive, the institution must acquire specialized capabilities and engage in continual learning. Finally, a lack of

dynamic skills will prevent the firm from maintaining its competitive advantage, particularly in a changing environment (Samsudin and Ismail, 2019).

The relevance of this theory was established in a meta-analysis of dynamic capability literature. Despite the approach emanating from the field of strategy, the underlining assumptions of the dynamic capability now represent a vibrant theoretical underpinning for several scholarly works in other areas of study such as entrepreneurship, technology and innovation management, international management, operations management, management information systems, and marketing management (Peteraf, 2019).

Despite the limitations and critiques of DCT, the overwhelming support of the theory in recent empirical literature in different disciplines of studies was reinforced by its wide adaptability for diverse study contexts (Teece, 2019). More so, its relevance to this study stemmed from its capability to explain how the local government in Oyo State, Nigeria, can improve their service delivery within a dynamic environment by deploying administrative capacity such as strategic planning, which lays forth a plan for accomplishing an organization's objectives. Understanding the institutional objectives of a corporate strategic plan will aid in the development of effective plans to guide the growth of the institution (Maleka, 2014). Management control, is the process through which an institution establishes performance objectives and works to attain them as best as possible over time (Giraud *et al.*, 2011), and innovation capability which is the ability to recognize new ideas and develop them into new/improved services. These are not static State administrative capacity. Furthermore, the DCT gave a theoretical justification for the requirement to continually evaluate the external environment and deploy suitable knowledge, skill, and ability to produce a meaningful administrative performance result. The bottom line is that an agency of the government that aspires to survive and prosper in a fast-changing

environment would depend largely on its ability to adapt consistently, sense, and develop its internal resources to align with its surroundings. This is why this research accepts the DCT as relevant for this investigation.

Based on the theory studied, this research takes the dynamic capacity as its foundation theory. The theory explains the interplay between administrative ability and service quality of local government in Oyo State, Nigeria. State capacity must not be static but dynamic so that the local government and its agencies can adapt and deal with environmental circumstances to generate its residents' desired economic well-being. This study, therefore, tested the following hypothesis.

H₁: The effect of administrative capacity on service quality at the local government level in Oyo State is not significant.

Administrative Capacity and Service Quality

There is an established cross-disciplinary intellectual tradition of researching state capacity, notably in political science and political sociology (Price, 2020). The concept has recently shifted more toward the administrative dimension of state capacity, that is, administrative capacity, which is being widely used in public administration and policy studies (Pugh, Hickson, Hinings, and Turner, 2008). The practical significance of this capacity is highlighted in terms of its necessity for economic performance, industrial growth, policy implementation, and overall national development (Rabey, 2017).

In this globalization era, administrative capacity must be strengthened to cope with the international setting of fierce competition, complexity, and unpredictability and to successfully confront financial crises, security threats, natural catastrophes, and pandemics (Schoonoven, 2018). In addition, the 2030 Agenda for Sustainable Development based on the Sustainable Development Goals (SDGs) provides additional relevance for improving administrative capacity (Scott, 2018). Nonetheless, the basic idea of capacity remains fairly contentious since there

are cross-disciplinary variances in its interpretation and its research-driven applications (Woodward, 2020). It has been noted by Whittle and Rafferty (2012) that with the proliferation of models and methodologies, capacity has increasingly become a "contested concept".

On the other hand, the actual attempts made by many nations to improve capacity are not generalizable since these projects or measures are frequently arbitrarily mandated by international organizations (Barney, 2020). It was noted previously that while administrative capacity forms a fundamental aspect of total state capacity, its appropriateness and efficacy are substantially impacted by its historical, political, economic, and socio-cultural circumstances, which differ cross-nationally and cross-regionally.

The competence to successfully execute policy plans and programs is vital to the prosperity of countries. Indeed, having a strong public sector that can best match resources with actions and execute specified policies is generally recognized to be a critical aspect in any state's quality of government and the success of its development efforts (Barney, 2021, Barney and Clark, 2017). No matter how representative or democratically developed public policies are, it is useless if governments cannot execute them (Bloom and Van, 2021). None of today's key milestones could have been reached without such capabilities, including the deployment of physical and financial resources, long-term planning, implementing innovation, and monitoring performance (Halgesteen and Becker, 2013). Even more so, today's complicated, fast-changing policy climate needs more remarkable efforts. Thus, administrative capacity may be predicted and assessed differently based on the most important or practicable components in a specific context, with some indices and measures concentrating more explicitly on the organizational-operational dimension than others (Hardor, Randiell, Stella, and Barrero, 2018). The relevance of administrative capacity is evident in the national competitive advantage sustained by nations such as Singapore, Denmark, the

Netherlands, New Zealand, and Switzerland that embarked on administrative modernization (Hassan and Iwuamadi, 2018). These countries have in common a relatively well-trained, well-paid, autonomous, and capable public service that is responsive, committed, and delivers quality service to their citizens.

Experts suggested that companies with well-crafted strategic plan papers fared better than those that did not have any. By inference, gaining considerable institutional productivity does not happen by luck. Thus, institutions must have a purposeful strategy to attain their aims. Comparable research similarly concluded that strategic planning enhanced Institutional performance (Hoeflich, 2018). The conclusion of the research was verified despite doing their investigations in a different geographical location (Honey and Okafor, 2018; Hoppe, Van, and Coenen, 2018). It was proven that mid-sized firms in Western Sri Lanka that were marginally employing strategic planning had a considerable increase in operational performance (Ibem, 2019).

In a similar study, statistical results confirm the positive and significant effect of strategic planning and innovation on the organizational performance of the Dubai Police (International Federation of Red Cross, 2015; 2017). Also, a study revealed that strategic planning measures are significant contributors to generating improved firms' success (Jesse, Agrawal, and Larson, 2018).

Another comparative research done in local public institutions averred that external and formal internal control were substantially linked with all three performance aspects - financial, service quality, and procedural, as predicted. However, informal internal control only had a significant association with service quality performance (Pelling and Wosner, 2019). This study also revealed that the external control, through the presence of formal internal control, had a stronger relationship with all three performance dimensions than the direct relationship between the external control and performance. This also aligns with the submission that affirms the relevance of

management control to operational efficiency and effective service delivery (Peters, Lanra, Twiggs, and Walch, 2019; Rao, 2018).

H₁: The effect of administrative capacity on service quality of the local government level in Oyo State is not significant.

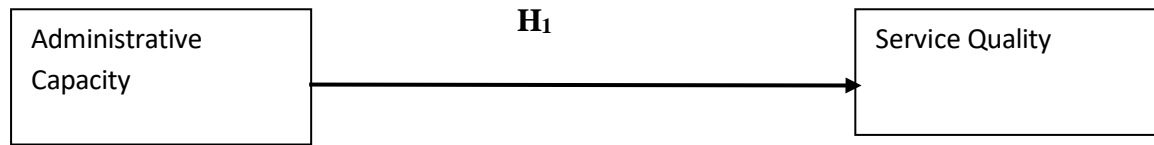


Figure 1: Conceptual Model

Source: Researchers' Model 2022.

Methodology

This research utilized a mixed technique which comprised gathering quantitative data and the use of qualitative data to complement the conclusion produced from the analysis of quantitative data. The mixed method was utilized to determine the effect of administrative ability on the service quality of local governments in Oyo State, Nigeria. In the same vein, a cross-sectional survey research strategy was chosen since it allows for analyzing a subset of a population at the moment in time. More so, researchers consider a cross-sectional survey design ideal since it is cheaper and requires less time compared to a longitudinal study (Hoppe, Van, and Coenen, 2019). This employment is premised on existent studies that found the mixed method approach suitable for a study of this sort (Hoppe, Van, and Coenen, 2019; Onamusi, 2020; Ibem, 2018; Ibrinke, 2022).

The population of this research consists of 7,840,864 persons, according to Oyo State Local Government Service Commission. This figure comprises individuals working in the local governments and the citizens. That is political officials, staff workers, and citizens of Oyo State's thirty-three local governments. Given the goal of this research which analyzes political leadership, administrative ability, and service delivery, the target populations include local government personnel (political and appointed) and the citizens of the local government studied. The rationale for this is to be able to obtain the required input to fulfil the objective of this research.

The sample size of this research is three

hundred and eighty-four (384), which is made up of local government workers in the six chosen local governments in Oyo State, Nigeria. The inclusion of the people of the local government's understudy is necessitated by the fact that they are seen as an acceptable data source for service delivery of the local government of residence. The multistage sampling approach was found to be valuable by the researchers because it is adaptable, cost-effective, and enables the researcher to split the general population into smaller groups or sample frames from which primary data may be gathered, analyzed, and conclusions derived. A structured questionnaire in accordance with existing research was prepared and utilized as the instrument of data collection. The structured questionnaire provides a substantial data source that boosted the outcomes of a mixed method study above either quantitative or qualitative research technique.

The researchers spoke with the necessary authorities at the six local governments to obtain permission to perform this study. This technique was essential because of the ethical difficulties in research-related data acquisition. The local government officials' approval helped significantly ease the questionnaire administration, retrieval, and response rate. Considering the sample size and the time period permitted for this study, this researcher engaged six research assistants who aided in the administration, retrieval, and first sorting of the questionnaires. The researcher highlighted the relevance of the study's results (to local government officials and academics) to the research assistants. More so, underlining how

scepticism in the questionnaire administration might imperil these conclusions.

Analysis and Results

The questions in this research were acquired via a related literature review and modified from studies that have been utilized and regarded as valid instruments. For criteria and content validity, the instruments were verified by senior faculty members in the department of public administration, Lead City University Ibadan, and the opinion of practitioners who took part in the pot study. The inputs were utilized to amend the questionnaire as required for the main research. The researchers put the questionnaires to a reliability test to assess the internal consistency of all items measuring each variable in the study. Internal consistency was utilized to establish the reliability of the replies to the questionnaire elements.

Applicable to multiple-item assessment instruments (like this research), Cronbach's alpha coefficient is often utilized to determine this internal consistency. A Cronbach's alpha value of >0.7 but <1 score for a questionnaire is determined to be trustworthy. The instrument's reliability was done via a pilot study employing 38 copies of the questionnaire, which were given to other local government workers not part of the research. The outcome of the reliability test demonstrates that Cronbach Alpha's coefficient of 0.79, 0.81, and 0.760 argues that the instrument is dependable for the primary research.

The researchers evaluated the data acquired (after completing numerous data treatments) using descriptive, inferential statistics and content analysis. Concerning inferential statistics, this research employs a partial least square structural equation modeling as the analytical approach to assess the hypotheses made for this study. The outcome of the hypothesis tested is significant at a probability value of less than 0.05. The descriptive statistics were done using Statistical Package for Service Solutions (SPSS) version 25. The inferential statistics were done using Smart PLS

version 3.3.5 since it is an acceptable statistical platform that permits primary data (questionnaire) to be analysed. It is vital to highlight that the interview results were utilized to give further support for the conclusions of the qualitative analysis.

A total of three hundred and eighty-four (384) copies of the questionnaire were administered to the personnel of the local government and the population separately. For the local government, three hundred and ten (310) copies were obtained. After sorting the questionnaires, two hundred and thirty-two (232) copies were validated as properly completed and declared useful. For the local government people, three hundred and ten (323) copies were obtained. After sorting the questionnaires, two hundred and thirty-two (257) copies were validated as properly completed and declared useful. The usable questionnaire indicated a 60.41 percent and 66.92 percent response rate for local government officials and their residents accordingly.

Test of Hypothesis

H₁: Administrative capacity has no significant effect on the service quality of selected local government areas in Oyo State, Nigeria.

To test the null hypothesis, Partial Least Square-Structural Equation Modelling (PLS-SEM) was adopted using the Smart PLS statistical platform version 3.3.5. The study used the PLS-algorithm's command, which is appropriate for predicting impact, ran the bootstrapping to ascertain the level of significant of the prediction, and ran blindfolding to confirm the predictive relevance of the model. The choice of PLS-SEM (via Smart PLS) is because it is a more advanced multivariate analytical technique which offers stricter and robust analysis compared with the outcomes of SPSS.

Data from two hundred and thirty-two (232) respondents were collated for the analysis. The result of the PLS-SEM is presented in three models. Figure 2 shows the path analysis, Figure 3 shows the t value which confirms the significance of the path analysis and Figure 4 shows the Q² which

established the predictive relevance of the summary of the information. structural model. Table 1 provides a tabular

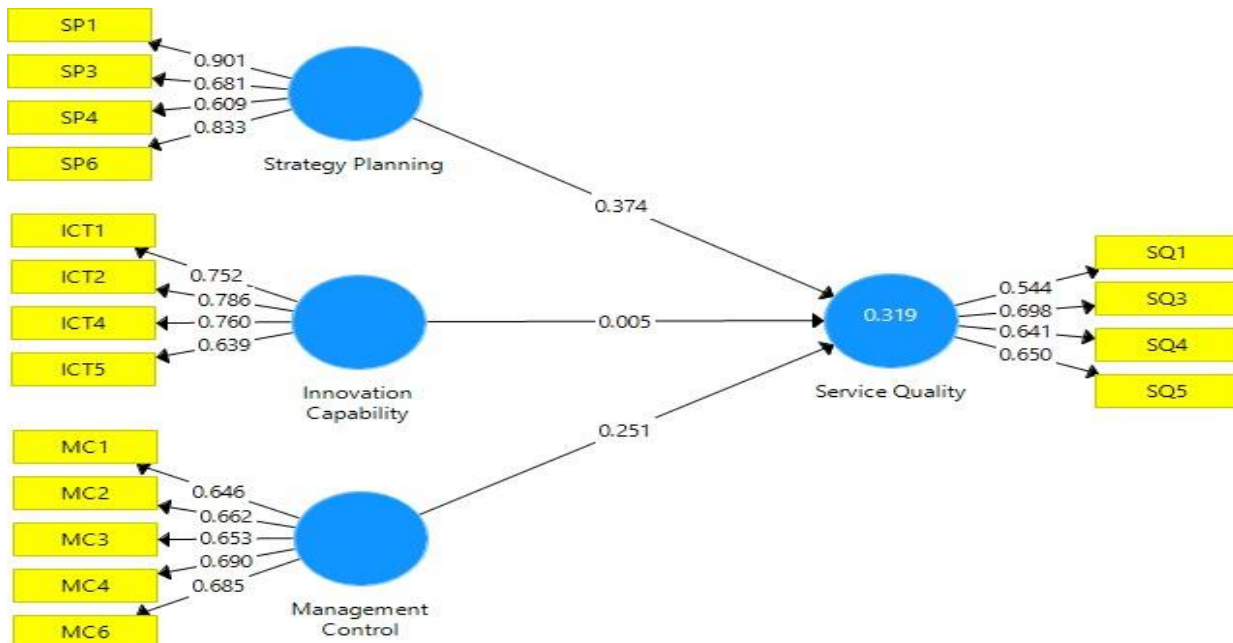


Figure 2: Path Analysis for Hypothesis Two

Source: Researchers' Computation via Smart PLS V3.3.5

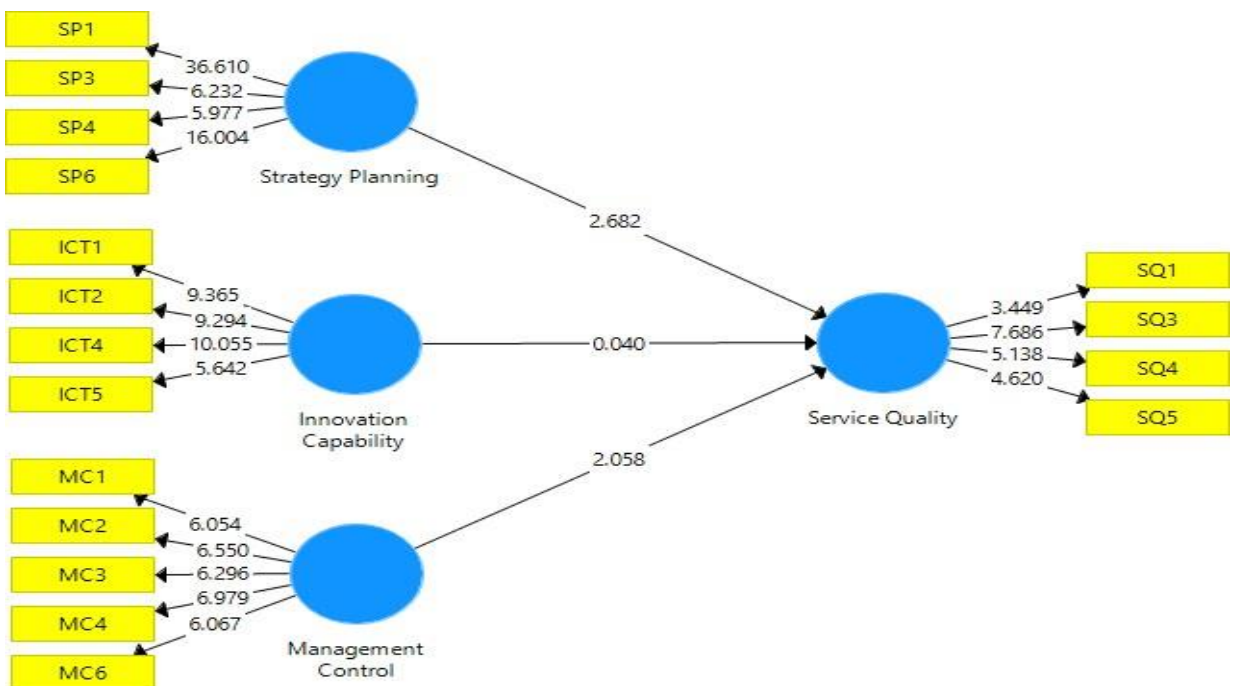


Figure 3: T-Statistics for Hypothesis Two

Source: Researchers' Computation via Smart PLSV 3.3.5

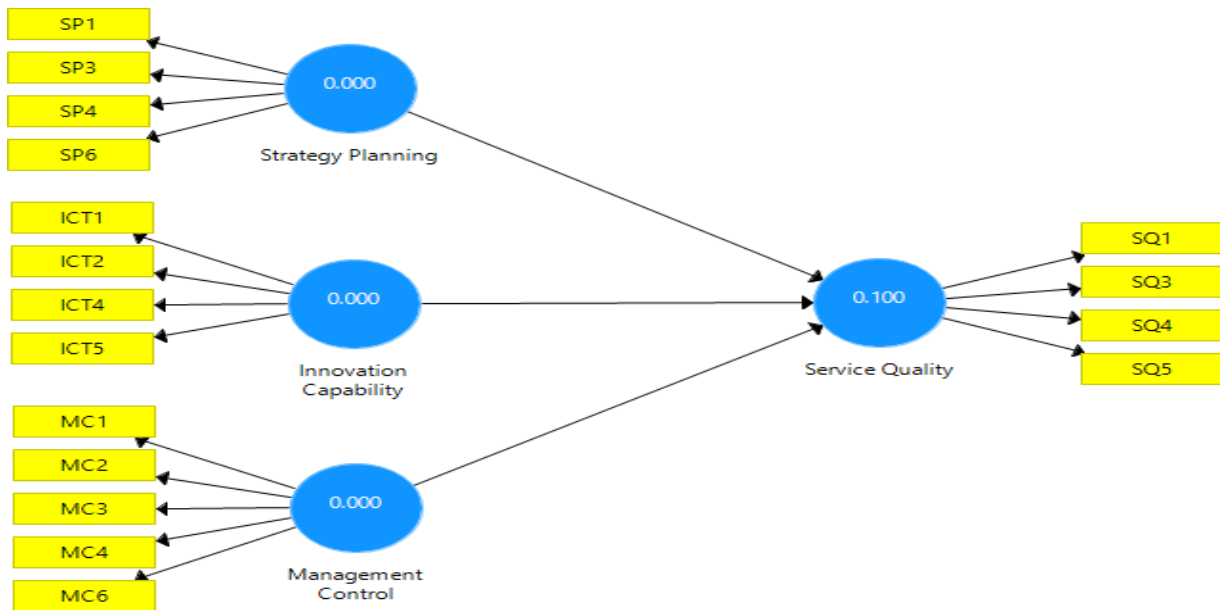


Figure 4: Q^2 Statistics for Hypothesis Two

Source: Researchers' Computation via Smart PLS V3.3.5

Tables 2: Summary of the effect of Administrative Capacity on Service Quality of selected local government in Oyo State, Nigeria using PLS-SEM

Path Description			Original sample(o)		t	Sig.	R ²	Adj. R ²	Sig.	Q ²
			Unstandardized Beta							
Innovation capability	→	Service quality	0.005		0.040	0.968				
Management control	→	Service quality	0.251		2.058	0.040	0.319	0.297	0.000	0.100
Strategy planning	→	Service Quality	0.374		2.682	0.008				

Dependent Variable: Service quality,

Predictors: Innovation capability, Management control and Strategy planning.

Source: Researchers' Result via Smart PLS Version 3.3.5 (2022).

Figures 2, 3, and 4 present the results of PLS-SEM analysis for the effect of administrative capacity on service quality of selected local governments in Oyo State, Nigeria, using PLS-SEM. The Adjusted R² was used to establish the predictive power of the study's model. From the results, the adjusted coefficient of determination (*Adj R²*) of 0.297 shows that administrative capacity explained 29.7% of the changes experienced in service quality of selected local government in Oyo State while the remaining 70.3% variation in service quality is attributable to other exogenous factors different from the administrative capacity factors considered in this study and the effect is statistically significant at 95% confidence interval.

The path coefficient of each administrative capacity sub-measures (Innovation capability, Management control and Strategy planning) represents the coefficient of determination (β) which shows the relative influence of each administrative capacity sub-measures on service quality of the selected local government in Oyo State. The PLS-SEM results in Figures 2, 3, and 4 revealed that at 95% confidence level, management control ($\beta=0.251$, $t=2.058$) and strategy planning ($\beta=0.374$, $t= 2.682$) are significant; however, innovation capability ($\beta = 0.005$, $t= 0.040$) is

statistically insignificant.

This result shows that the relative influence of management control and strategic planning and its corresponding t-value are greater than the threshold of 1.96, suggesting a statistically significant relative influence. However, the relative effect of innovation capability has t-values below the acceptable threshold of 1.96 to suggest that the relative effect is statistically insignificant. The result also indicates that taking all other independent variables at zero, a unit change in management control will lead to a 0.251 increase in service quality in selected local government in Oyo State, given that all other factors are held constant. Also, taking all other independent variables at zero, a unit change in strategy planning will lead to a 0.374 increase in service quality in selected local government in Oyo State given that all other factors are held constant. Overall, strategy planning ($\beta = 0.381$) has the highest relative influence, followed by management control ($\beta = 0.337$). Given the PLS-SEM predictive results in Table 2 (*Adj R²* = 0.297; $p = 0.000$, $Q^2 = 0.100$), this study can conclude that administrative capacity has a positive and significant effect on service quality in selected local government in Oyo State, Nigeria. Hence, the study rejects the null hypothesis one (H_{02}) which state that administrative capacity has no significant

effect on the service quality of selected local government area in Oyo State, Nigeria.

Discussion, Conclusion and Recommendations

The findings of multiple regression analysis on the effect of administrative capacity on the service quality of local government in Oyo State, Nigeria, found that administrative capacity has a positive and substantial effect on service delivery. Conceptually the existence of internal organisational capacity such as strategic planning, innovation capability, and managerial control are contextualized as administrative capacity success criteria for local government. This conclusion corresponds with this study's premise about administrative competence. This research evaluated administrative capacity from the dynamic capability theory, which emphasized that administrative capacity is an intangible asset that local government may grow through time and deploy to achieve improved social performance in a changing environment.

From the theoretical standpoint both the dynamic capability theory is enhanced. The dynamic capability theory in an inside-out viewpoint, highlights that for company to attain exceptional performance, such businesses must possess internal Organisational knowledge, skill, and ability that are highly distinctive. Furthermore, the dynamic capability theory emphasizes the necessity for a business to guarantee it has internal and external organization abilities one that adjust to changing environments as a prerequisite to obtaining better performance. This study's findings are in concomitance with these theoretical approaches. Therefore, on the basis of the support discovered in conceptual, empirical and theoretical contributions in current literature with this present research's outcome, the study contends that administrative capacity has considerable influence on new product performance.

This study was carried out to examine administrative capacity (strategic planning, innovation capability, and management control) on service delivery (operational efficiency, service

quality, and responsiveness) of six local governments area in Oyo State with rural and urban representation. However, underpinning the result demonstrates that all the elements of administrative capability had a minimal contribution to the service quality in the local governments analyzed in Oyo State. This is a cause of worry for the local government administration if it wishes to accomplish considerable development and compete with global public service performance standards.

The results of this research have significant relevance for the government regarding the administration of the local government and the subsequent contribution to the grassroots economy. It is vital that government at the Federal and State levels realize the statutory responsibility of the local government to the grassroots economy more so that the local government's competence to provide the dividend of democracy lays its political, administrative, and financial autonomy. Village needs vary from one community to another, even under similar municipal authority. Hence, the assumption that the State government governs the local government is detrimental to their potential to become the mainstay of the local economy and supply vital infrastructure developmental amenities to the grassroots economy.

Based on the outcomes of this investigation, the following suggestions are given; underlining the significant influence of administrative capacity on service quality of selected local government in Oyo State is an insignificant relative effect of innovation capability. Hence, the leadership of the local government in Oyo State should ensure it acquires and train its staff on information communication technology equipment; more so, Oyo State government need to provide funds to innovate the local government offices and encourage innovation in term of policies that can enhance service quality for the citizens of Oyo State, Nigeria.

This work makes a substantial addition to literature philosophically, theoretically, and practically. Based on the conceptual evaluation done, this work makes deep addition to knowledge

conceptually innumerable aspects. The research identified and addressed conceptual gaps in literature surrounding the administrative ability, and service quality of local government in Oyo State, Nigeria. Another conceptual addition to knowledge were the administrative capability sub-variables utilized in this research. Hence, future research may employ the semetrics to increase its generalizability. In conclusion, the conceptual model produced for the research highlights another area in which this study has added to the knowledge conceptually since no known comparable studies, both theoretical and empirical, have employed the model in their investigations. Hence, contributes to theories that might explain the relationship between political leadership, administrative ability, and service performance.

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Apex Bank Intervention and Agricultural Development in Nigeria

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Abstract

The Nigerian apex bank's agricultural intervention has continued to have a substantial influence on the growth of the agricultural sector, primarily through mobilizing credit facilities for the country's small, medium, and large-scale commercial farmers. The study shows that the apex bank also aided the industry by using loan guarantees to handle default concerns, with the goal of encouraging commercial financial institutions to do business with agricultural business owners. The research does, however, include the Central Bank of Nigeria's intervention facilities for agricultural growth in Nigeria.

Keywords: Development, Central Bank of Nigeria, agriculture, and finance

Introduction

The nutrition transition in malnutrition in the developing world today is quite complicated by a shift away from traditional diets towards a more globalized intake pattern that includes increased quantities of processed foods, animal products, sugars, fats, and alcohol (Popkin and Gordon-Larsen, 2004). High rates of food insecurity and malnutrition as well as the prevalence of overweight and associated non-communicable diseases, are leading to a "double burden". It's expedient that governments and multilateral agencies boost food production. This is being pursued with different agricultural programmes, including the need to migrate to provide intervention funds to many developing entities.

Since agricultural growth and transformation in Nigeria are dependent on sustained public sector interventions, commercial agriculture involves the considerable application of modern techniques, including machinery and other farm input but the capital equipment significance has grossly reduced the number of labour and capital productivity. Development financing is one of the major instruments for rapid and sustainable economic growth and development, which supply finance, fund, credit and donations to various sectors of the

economy to achieve welfare improvement, greater productivity and facilitate economic growth. Development finance is the financial initiatives involving formulating and implementing policies, innovations, schemes, programmes, and appropriate financial supply/credit to deliver economic services effectively, efficiently, and sustainably to achieve economic growth and development.

In Nigeria, the highest financial regulatory body is the central bank which has been playing this development finance role in supporting the sectors of the economy such as agriculture, industry and entrepreneurs with the supply of finance, credits and donations for the growth and development of the Nigeria economy (Nasir, 2016). The Central Bank of Nigeria is the sole designer, initiator, administrator and regulator of all development finance policies and schemes in Nigeria. All the internal financial institutions, lending institutions, development finance institutions and commercial banks are controlled, guided and operated under the central bank of Nigeria's directives. The Central Bank of Nigeria's development finance role initiatives involves the participation of Central Bank Nigeria directly or indirectly in the economy in terms of the

formulation and implementation of various policies, schemes, programmes innovations and directives for the provision of sufficient finance and credit to the productive sectors of Nigeria with the primary objective of facilitating economic growth and development (Nasir, 2016). Thus, structural issues such as low access to finance for real sector investment, non-diversification of the economic base in export earnings, inadequate infrastructure, financial exclusion and unemployment persist (Adamgbe *et al.*, 2020). Addressing these challenges requires robust policies directly targeting identified sectors that have weighty implications for national economic growth and development. It's against this backdrop that this study intends to investigate the influence of the central bank of Nigeria on intervention facilities for agricultural export commodities development in Nigeria.

However, Nigeria, like most other African countries, is not only endowed with vast agricultural farmland but also a conducive geographical condition that favours agricultural production throughout the year. Despite this great potential, there is little to show for it (Dumoteim, 2018; Stringer and Pingali, 2004).

Poor credit supply is one of the factors accounting for the poor performance of the agricultural sector in Nigeria (Todaro and Smith, 2019). Meanwhile, commercial, financial institutions have no kin interest in financing agriculture (Ukpong, 2019). To encourage these banks, the government established several agricultural credit schemes to provide guarantees against inherent risk in agricultural lending (Oladipo, 2008). Consequently, the country, with its highly diversified agroecological condition is relying on massive importation of basic food items and raw materials for industrial inputs (Ojo *et al.*, 1992). The resultant effect of the high cost of living coupled with a high level of unemployment on the common man is beyond reasonable imagination.

Against this backdrop, the study investigated the influence of the Central Bank of Nigeria's (CBN) intervention policies on agricultural

development in Nigeria. Thus, the extent of how much input in form of financial support accruing as a consequence utilized to the agricultural development in Nigeria cannot be said to be ascertained.

Review of Related Literature

Finance is critical to the day-to-day operations of any organisation; thus, its importance cannot be overstated. Finance is the foundation for obtaining capital assets for a business, such as land, machinery, buildings, and any other assets required for the start of a successful corporate business (Mbutor *et al.*, 2013). Furthermore, money is the lifeblood of an agricultural business, which is primarily concerned in the production, processing, marketing, and delivery of food, and improved access to required funding would aid in its expansion and quick growth.

Agricultural activities are dominated by peasant smallholder farmers, who account for around 90% of agricultural holdings in Nigeria. These farmers mostly use traditional methods and produce primarily for subsistence. Agriculture is regarded as a fundamental pillar of the Nigerian economy. Its importance in terms of economic growth and sustainable development, employment opportunities, poverty alleviation, and export cannot be overstated (Salako *et al.*, 2015). The agriculture sector encourages structural reform and economic diversification. It allows the economy to fully use its factor endowment. It also ensures that the country is less reliant on foreign agricultural supplies (Abellanosa and Pava, 2017).

Hitherto, Nigeria had an agrarian economy, with agriculture as the foundation of growth (Matthew and Mordecai, 2016). Agriculture was a significant source of Nigeria's Gross Domestic Product (GDP) shortly after independence. It produced over 70% of the GDP and employed a considerable proportion of the working population. The industry also accounted for almost 90% of all foreign exchange earnings and government income. During this time, Nigeria rose to become the world's second biggest cocoa producer and a

net exporter and producer of palm oil, cotton, groundnuts, hides, and rubber (Olajide *et al.*, 2012). Following the discovery of oil, this situation began to deteriorate.

Between 1970 and 1974, the proportion of agricultural exports to total exports deteriorated from forty-three per cent to about seven per cent. This was largely due to the oil price hikes of 1973 – 1974. This, however resulted in a huge income of foreign exchange and the consequent neglect of agriculture. From the 1970s to the 1980s, agricultural exports declined by seventeen per cent annually (Omorogiuwa *et al.*, 2014). During the 1980s, the agricultural sector could no longer meet local food requirements, and supply raw materials for industry and had lost its foreign exchange earning capacity. This was attributed to several socio-economic and environmental challenges. Domestic food supply had since become a major challenge in Nigeria, and huge foreign exchange earnings were utilized in importing food. Consequently, Nigeria has been witnessing extreme hunger and poverty due to the lack of basic food items.

The challenges of the agricultural economy could be traced to the increased dependence on oil and the consequent neglect of agriculture. After the discovery of oil, the agricultural sector's percentage contribution to GDP nosedived and fluctuated between 10-22 per cent from 1980 to 2015 (Omorogiuwa *et al.*, 2014). However, according to the Statista report, the contribution of agriculture to Nigeria's GDP increased between 2019 – 2021, contributing about 30 percent to the GDP in 2021 (Sasu, 2022). The effect of this is directly noticed by smallholder farmers. Smallholder farmers are majorly subsistence farmers, and they produce the majority of the food in Nigeria. They produce eighty-five per cent of total agricultural production and reside mainly in rural areas (Sahoo and Sethi, 2012; Wood and Scheibl, 2005). Their productive capacity and growth are, however, hindered by inadequate and inaccessible credit facilities (Wood and Scheibl, 2005).

A scholar explains that agriculture constitutes a very important sector of the Nigerian economy and was the dominant sector before the crude oil boom of the 1970's (Wood and Scheibl, 2005). He stresses that the agricultural sector contributes 64.1 per cent of the gross domestic product as compared to other sectors. The Nigerian agricultural sector is characterized by a low farm income, a low level of capacity to satisfy the food and fibre need of the country and primitive techniques of production. The nature of the problem of the agricultural sector boils down to financial constraints. At the heart of the financial problem, is the despondence of small farmers in the Nigerian rural economy; about 90% require fairly small size loans. Agricultural finance plays a very important role in agricultural productivity and development. The provision of credit has been adjudged as a critical resource in the advancement of the agricultural sector. However, access to agricultural finance has been seriously incapacitated in Nigeria (Todaro and Smith, 2019).

Literature suggested that increased credit availability would result in increased agricultural production, a lower unemployment rate, and greater earnings. It was estimated that barely 5% of farmers in Nigeria and roughly 15% in Asia and Latin America had access to formal loans (Todaro and Smith, 2019).

The Agricultural Credit Guarantee Scheme Fund (ACGSF) was founded in 1977 in an attempt to address this situation. The fund was created to encourage banks to boost their agricultural lending and advances. As a result, the fund's purpose was to provide assurances against the negative risks of agricultural loans. However, between 1981 and 2015, the ACGSF only insured loans totalling ₦75.5 billion. From 1981 to 2016, commercial banks' direct lending to the agriculture industry was valued at ₦3.48 trillion. Also, from 1981-2016, Government capital expenditure on agriculture was valued at ₦1.19 trillion, and Government recurrent expenditure on agriculture was valued at ₦525.11 billion, respectively.

As such, it was imperative to determine whether agricultural funding had stimulated the agricultural sector's performance in Nigeria. Interventions by the government have been influenced by the need to provide access to inputs and other support to peasant farmers to boost their productivity and enable them transit to mechanized agricultural practices. In contrast, commercial farm holders were supported through the provision of credit facilities, input subsidies, capacity-building initiatives and export incentives.

Theoretical Framework

The commercial loan theory of liquidity was employed to give credence to the study.

Commercial Loan Theory of Liquidity

The Commercial loan theory of liquidity also known as the real bills doctrine was developed by Adam Smith in 1776. Adam Smith uses this theory to explain the bank liquidity that short-term loans advanced to finance saleable goods on the way from producer to consumer are the most liquid loans the bank can make. These are self-liquidating loans because the goods being financed will soon be sold. The loan finances a transaction and the transaction itself provides the borrower with the funds to repay the bank. According to Adam Smith these loans are liquid because their purpose and their collateral were liquid. The goods move quickly from the producers through the distributors to the retail outlet and then are purchased by the ultimate cash-paying consumer.

The theory stipulates that commercial banks should only lend to profitable business organizations for a short-term period and ensure the loans can self-liquidate. A loan is self-liquidating if the loan finances a transaction and the transaction in return generates the funds to repay the loan. The Real Bills Doctrine can easily be illustrated as a transaction between a bank and a business that creates money in the economy. For example, a seed company supplies One Hundred Thousand Naira (₦100,000) worth of maize seeds to a farmer. An invoice is written with payment due in 90 days. The farmer agrees to repay the credit

after planting, harvesting, processing and sales over the 90days period. In effect, the supplier has created commercial paper (a "real bill" that is not secured but represents tangible goods in the process) that has a value of One Hundred Thousand Naira (₦100,000). Rather than wait to be paid, the supplier can sell the paper to a bank at its present discounted value of, say, Ninety-Eight Thousand Naira (₦98, 000). The bank monetizes the paper, and the bill is collected at full value.

The theory also posits that the composition of commercial banks' assets should consist primarily of loans advanced to business organizations for their working capital(Jhingan, 2017). This theory postulates that if commercial banks limit their advances to productive, self-liquidating, short-term liquidating loans; the central bank should also limit their advances to banks' on the security of those short-term loans. This principle would ensure the liquidity of the commercial banks and an adequate supply of money for the economy.

The Central Bank increases or reduces bank reserves by rediscounting approved loans when a business expands or declines and the volume of trade increases or reduces respectively. Commercial banks provide funds to the agricultural sector by granting loans to farmers to finance their working capital needs.

The liquidation of the loans is expected to come from the production, distribution and sale of their farm produce. Some economists have however criticized the doctrine. The economists that advocated the quantity theory suggested that central banks should focus on stabilizing the quantity of money, preferring active open-market policies like the acquisition of public debt to drive liquidity in markets and stabilize the currency. The doctrine was most strongly criticized by economists supporting free banking. They argued that the government shouldn't be involved in money supply management. They opined that open commercial competition provides the optimal stabilization of money creation.

Central Bank of Nigeria (CBN) Intervention and Agricultural Development

The Central Bank of Nigeria's (CBN) monetary, credit, international trade, and exchange rate policies have all worked well to keep inflation and currency rate depreciation under control. However, structural difficulties such as limited access to credit for real sector investment, a lack of diversification of the economic base in terms of export profits, insufficient infrastructure, financial exclusion, and unemployment persist. To address these difficulties, strong policies that directly target specific industries and value chains with significant consequences for national economic growth and development are required (Dumoteim, 2018).

Section 31 of the CBN Act No. 7 of 2007 (as amended) authorizes the bank to carry out developmental functions such as encouraging the development of Nigeria's money or capital markets or fostering financial or economic growth. The CBN's development role is meant to decrease financial market failure through appropriate actions that enhance the supply side's capacity to effectively intermediary and the demand side's capacity to absorb financial services optimally. The Bank's developmental function is carried out through a development finance policy (CBN, 2007).

The CBN commenced development finance in 1964 when it began supporting the then commodities boards as ordered by the Federal Government of Nigeria. By 2009-2010, the Bank has made a significant number of development funding operations. This was justified by the necessity to stimulate the economy following the global financial crises of 2007-2008. Another important phase was 2015-2016 when the Bank implemented a number of measures to help the real sector and bring the economy out of a slump. It is worth noting that these initiatives are not exclusive to the CBN. It is the standard of central banks in developing countries, even high-income countries (Dumoteim, 2018).

Agriculture, industry, manufacturing, and other associated economic sectors in Nigeria lack access to sufficient and equitable finance that would allow them to enhance their inputs and output. As a result, the Central Bank of Nigeria's credit schemes were formed and aimed to boost the inflow of appropriate and just credit to Nigeria's productive sectors, mostly at single and set interest rates. The Central Bank of Nigeria's development role initiatives entails the Central Bank of Nigeria's participation in the economy, either directly or indirectly, in the formulation and implementation of various policies, schemes, programmes, innovations, and directives for the provision of sufficient finance and credit to Nigeria's productive sectors, with the primary goal of facilitating economic growth and development.

In order to accelerate the nation's economy and facilitate agricultural development and economic progress, the Central Bank of Nigeria is adopting different reforms, such as credit schemes and financial programmes, that have a direct influence on the country's economy. The Central Bank of Nigeria's Development Finance Department is driving these fundamental changes to accomplish microeconomic goals such as quick and balanced economic development and eliminating poverty, unemployment, and inequality (Nasir, 2016).

Agricultural Credit Guarantee Scheme

The Central Bank of Nigeria manages development funding through credit schemes such as the Agricultural Credit Guarantee Scheme, which was formed in 1977 to revitalise and enhance the agricultural sector by providing loans to Nigeria's small and medium rural farmers. The credit scheme was designed primarily to improve food production and food security and address the issues that rural farmers growing food crops have due to a lack of access to appropriate and equitable credit facilities. According to data from the Central Bank of Nigeria, the Agricultural Credit Guarantee Scheme has provided financial assistance to farmers in Nigeria totalling 130.90 billion naira

from its inception through the first quarter of 2022 (Komolafe, 2021).

Commercial Agricultural Credit Scheme (CACS)

The Commercial Agricultural Credit Scheme (CACS) was created to accelerate the growth of the agricultural value sector of the economy by providing credit facilities to large-scale commercial farmers at single-digit interest rates (CBN, 2014). The strategy boosts agricultural commercialization, modernisation, mechanisation, large-scale agricultural output, agricultural export commodities, foreign exchange revenues, and Nigeria's commercial agricultural-oriented industry. Furthermore, according to statistics from the Central Bank of Nigeria's economic report, as of the first quarter of 2022, a total of 735.17 billion had been given to farmers under the Commercial Agricultural Credit Scheme (CACS) to further accelerate agricultural growth in Nigeria (CBN, 2022).

Nigerian Incentive-Based Risk Sharing in Agricultural Lending (NIRSAL)

In addition to the Commercial Agricultural Credit Scheme (CACS) is, the Nigerian Incentive-Based Risk Sharing in Agricultural Lending (NIRSAL) established to mobilize financing for Nigerian agribusiness through the use of credit guarantees to address the risks associated with default and targeted at encouraging financial institutions to be more receptive to doing business with agribusinesses. NIRSAL was aimed at creating greater access to finance through the integration of end-to-end agriculture value chains such as input producers, farmers, agro-dealers, agro-processors and industrial manufacturers with agricultural financing value chains – loan product development, credit distribution, loan origination, managing and pricing for risk, and loan disbursement. The integration was driven by the NIRSAL's 5 pillars, particularly the Risk Sharing Pillar and the Technical Assistance pillars, such as Risk Sharing Facility, N45 billion; Insurance

Facility, N4.5 billion; Technical Assistance Facility, N9 billion; Agricultural

Impacts of the CBN's Intervention Fund on Agricultural Development in Nigeria

The interventions by the CBN in the agricultural sector are principally anchored on the selected programmes, such as; Agricultural Credit Guarantee Scheme (ACGS) and the Commercial Agricultural Credit Scheme (CACS), among others. Examining the impact of the interventions in the agricultural sector is based on the assumption that such interventions impact the production decisions of agricultural business owners leading to increased output/ yield. Given that the interventions by the Bank are provided to both small and large-scale agriculturalists, it is plausible to assume that those interventions act as increases in the stock of agricultural capital and thus have direct effects on the production decisions of the farmers. However, the efforts of the CBN have contributed to the nation's agricultural sector immensely and Nigeria's GDP all-around since its inception. The National Bureau of Statistics (NBS) stated that the contribution of the agricultural sector to the GDP rose from 19.79 in 2015 to 22.35 in Q1 (2021). Also, 2.2 percent real growth was recorded in Nigeria's agricultural sector in Q4 of 2020. This has helped Nigeria's economy to record its first growth in three quarters. Hence, the role of the CBN intervention efforts and development finance activities as a factor in the agricultural growth of the country.

The report from the Nigeria Bureau of Statistics indicated that the agricultural sector topped the chart in a survey of seven sectors identified to have contributed to Nigeria's economy in the second quarter of 2022. The chart revealed that agriculture alone contributed 23.3 per cent to GDP (Half Year 2022), which supports the positive trend of the previous years' performance of 25.88 per cent (2021); 26.21 per cent (2020); 25.16 per cent (2019); 25.13 per cent (2018); 25.08 per cent (2017); 24.45 per cent (2016) and 23.11 per cent

(2015) (Ewepu, 2022). Furthermore, Yusuf Yila, the CBN Director of Department of Finance, stated that the Central Bank of Nigeria's efforts and interventions have resulted in a lot of development and effect, ranging from combating extreme poverty, food insecurity, and growing the agricultural sector and manufacturing base. He added that food security in Nigeria has improved dramatically in the last five years. The CBN intervention has further reduced the dependency on imported foodstuffs (Wazilat, 2022).

Conclusion and Recommendations

The study reveals that the CBN interventions in agriculture have ensured positive trends of performances to the country's GDP. However, the CBN is expected to play an increasingly important role against the background of previous gross under-performances. To keep up with this expectation, it will need to transform in ownership, management, human capital, organization, the scope of operation, processes, and resources. However, these cannot happen without the buy-in and support of its current owners.

With the required government (ownership) support and open-mindedness to partial privatization, reforms and modernization, the Bank will achieve good and sustainable financial performance; and good socio-economic behaviour, through rapid, sustainable and inclusive growth, wealth and job creation, food security (the beginning of true independence and national self-respect) diversified and stable economy, foreign exchange earnings through increased export, foreign exchange conservation through import substitution agric-led industrialization, inexpensive local raw material for industry, and increased FDI.

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Netizens' Detection and Mitigation of Crimes in the Digital Environment in Nigeria: A Qualitative Analysis

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Abstract

The Internet and social media have become essential parts of modern life. While this continues to impact speed and quality of delivery positively, one sad problem associated with the technology is cybercrime. This study aims to evaluate the level of cybercrime awareness in Nigeria and find ways to mitigate cybercrimes in Nigeria. Anchored on Technological Determinism and Protection Motivation Theories, the research combines qualitative analysis of relevant literature with primary data collected through a 7-point in-depth interview in which 20 participants were purposively selected from the six geopolitical zones in Nigeria. The study's findings show that Nigerians are well aware of cybercrimes; although Nigeria has legislation to combat cybercrimes, it is ineffective due to a lack of public knowledge. People take action on their own to mitigate cybercrime because the public is unsure of the government's efforts. It is recommended that the government creates job and educational opportunities to discourage would-be criminals, enact effective laws that the public is aware of and penalize defaulters; also that citizens would maintain awareness of information regarding security breaches and use strong passwords that are updated regularly.

Keywords: Cybercrime, cybersecurity, internet use, media literacy, social media.

Introduction

In the last two decades, the Internet and social media have become essential to modern life. University Canada West, [UCW] (2022) opines that social media has taken over industries such as business, advertising, education, and many more; they all rely on the internet and social media as their primary means of communication. According to Saurel (2020), the use of platforms such as Facebook, Twitter, and Instagram has drastically altered how people socialize. People use social media to create, share, and exchange ideas and knowledge in virtual places. The internet has made

it possible to hold online lectures, conferences, seminars, workshops, and other events that people can attend from the comfort of their homes (Insegment, 2012). According to Dwivedi, Ismagilova, Rana, and Raman (2021), people nowadays rely increasingly on digital ways of conducting business, and their purchasing process frequently includes using social media. The internet and social media platforms also serve as sources of information and entertainment, such as news, movies, and music.

During the COVID-19 epidemic, the internet's and social media's significance became apparent.

According to Kushner (2020), the world learned that social media is an excellent method for people and communities to stay connected even when physically separated. Kushner maintains that governments and businesses used social media to help people understand what was going on and how it affected them. González-Padilla and Tortolero-Blanco, (2020) say it has never been possible in human history to communicate so swiftly during a pandemic. When people had to work from home, attend lectures online, and have virtual meetings, social media platforms became critical for information dissemination.

Because of the ever-changing nature of technology, the internet and social media have become one of the most rapidly developing and influential mass communication platforms. According to Datareportal (2022), there are 4.65 billion social media users worldwide, accounting for 58.7% of the total global population. Datareportal posits that 326 million new users are added to this figure annually. While the internet and social media technologies have gained widespread adoption and penetration into many parts of human activity, they have also brought their own challenges. It provided new opportunities for criminals by serving as a tool and method for criminals to commit a new type of crime known as cybercrime. Parker (1998) adds that cybercrime is a big worry for the global community. He observes that the introduction, expansion, and exploitation of technologies have boosted criminal activities. In support of this point, Kumar (2022) argues that this poses a substantial commercial risk for practically every corporation, for which many are woefully unprepared. Kumar says that when the crimes include healthcare, the consequences may be more than just financial; they may also result in death.

Cybercrime comes in many forms. Brush (2021) submits that most cybercrimes are committed with the hope of financial benefit by the offenders; nevertheless, others are committed against computers or devices to damage or disable them. Others use computers or networks to spread

viruses, illicit information, photos, or other materials.

According to a report issued in 2020 by Cyber Security Ventures, global cybercrime expenses were estimated at \$6 trillion USD in 2021. The figure is expected to reach \$10.5 trillion per year by 2025. In Africa, according to Emi (2020), as of 2017, cybercrime had cost the African economy \$3.5 billion. Nigeria, Kenya, and South Africa suffered annual losses of \$649 million, \$210 million, and \$157 million, respectively, due to cybercrime.

Nigeria is rated 16th among countries afflicted by cybercrime worldwide, with 443 reported cases, according to the FBI's Internet Crime Report (2020). Iwenwanne (2021) avers that Nigeria has over 120 million internet users, and the anti-corruption agency, the Economic and Financial Crimes Commission (EFCC), is facing a cybercrime epidemic in which Nigerians are both victims and offenders. Azeez (2019) further states that various Nigerian corporate companies and individuals lost over \$800 million to cyber attacks in 2018. Cybercriminals posing as executives of financial organizations defraud people of their hard-earned money daily. Against this backdrop, this study aims to examine cybercrime in Nigeria to find ways of detecting and mitigating these crimes.

Research Objectives

The objectives of this research are to:

1. Evaluate the level of cybercrime awareness in Nigeria.
2. Evaluate the types of cybercrime existent in Nigeria.
3. Evaluate whether relevant legislation is in place to combat cybercrimes in Nigeria.
4. Find ways to mitigate cybercrimes in Nigeria.

Literature Review

The Menace of Cybercrimes in Nigeria: Causes and Consequences

Cybercrime refers to the use of computers or computer networks as a tool, a target, or a location for illegal activity. It also encompasses classic crimes where computers or networks are utilized to facilitate unlawful activity (Das & Nayak, 2013). The Merriam-Webster dictionary defines Cybercrime as “criminal activity, such as fraud, theft, or distribution of child pornography, committed using a computer especially to illegally access, transmit, or manipulate data”. According to Stam (2020), cybercrimes are crimes perpetrated online and through technology against those who utilize the internet and technology. Security outfits, financial institutions, and businesses worldwide have continued to be compromised through Cybercriminal activities every day. According to Calif (2020), the costs of cybercrime include data loss and damage, money theft, lost productivity, intellectual property theft, theft of personal and financial data, fraud, disruption of routine business operations, forensic investigation, restoration and deletion of compromised data and systems, and reputational harm.

The Federal Bureau of Investigation (FBI) estimates that between 2016 and 2020, there were over 2 million complaints, resulting in a loss of over \$13.3 billion due to various cybercrimes. With a total of 443 reported cases, Nigeria was rated 16th among the nations worldwide that were afflicted by cybercrime. Cybercrime, often known as “Yahoo Yahoo” in Nigeria, is one of the most popular types of international crime (Iwenwanne, 2021). The 419 scams, also known as advance fee fraud, is another widespread Cybercrime committed by Nigerians, in which scammers use emails to target persons outside the country's boundaries. Iwenwanne (2021) argues that it is still pervasive to the point that the FBI has a warning on its official website advising against responding to emails from Nigeria requesting personal or banking information.

In recent years, more Nigerians have become victims of internet fraud. According to Ripples

Nigeria (2022), research, commercial banks in Nigeria lost a total of ₦15 billion to electronic fraud and cybercrime in 2018, a 53.7 percent increase from the ₦2.37 billion loss reported in 2017. Such figures are terrifying! They beg the question, “What is the cause and motive for Nigerians who perpetrate cybercrime?”

While numerous reasons might be cited, a few stand out.

1. ***Unemployment and Poor Standard of Living:*** Even after completing their various studies at educational institutions, millions of jobless youths walk the streets, making them susceptible to being victims or perpetrators of cybercrimes. A young person who is unemployed and hungry is typically desperate and would seize every chance to get money to provide themselves with a decent living. These opportunities are usually disguised as internet fraud, or cybercrime.
2. ***Societal Values and Quest for Wealth:*** Another cause for the rise in cybercrime is the deterioration of social values and the pursuit of wealth. According to Igwe (2021), the growing negative influence of politicians who rise to wealth suddenly by using state resources for private purposes, as well as the fact that no special qualification is required to engage in politics, means that someone can become wealthy overnight if he assumes public office. This get-rich-quick syndrome significantly influences young people who try to achieve it at any cost, including through crime.
3. ***The Ease of Cybercrime:*** The ubiquity of internet connectivity and the ease of acquiring the tools and gadgets needed to commit cybercrimes also makes it attractive to many, partly because the probability of getting arrested and the cost of investment is low. All a cybercriminal

needs are for one to be online, and one can be attacked from any part of the world. Brush (2021) claims that the criminal no longer has to be physically present when committing a crime. Because of the internet's speed, convenience, anonymity, and lack of boundaries, computer-based versions of financial crimes such as ransomware, fraud, and money laundering, as well as crimes such as stalking and bullying, are easier to commit. In addition, the lack of cybercrime laws to serve as a deterrent to would-be offenders make it easy for the criminals as they often go unpunished.

4. **Curiosity:** Ndubueze (2020) asserts that young people have a natural interest and want to experiment. Some intelligent young individuals may participate in unlawful and deviant online activities due to this curious thinking. Just for the fun of it, they might try to enter someone else's account by guessing passwords, for instance. Whatever the motivations, Nigerian cybercrime trends have far-reaching consequences for corporations, government institutions, educational systems, and the general population. Some of these effects are discussed below.
5. **Foreign Investors:** Due to the nation's negative reputation, foreign investors are discouraged and scared off. A nation's reputation is damaged in the eyes of the international community when there is a high level of cybercrime. Nigerian Communications Commission [NCC] (2017) asserts that this directly impacts the nation's unemployment rate when foreign investors and their parent companies leave the country and, in some cases, reduce staff numbers as a result of cyber attacks that have caused a decline in profit.

6. **Impact on Productivity:** People regularly transact businesses online in the digital age; as a result, cyber security costs as part of a company's annual budget is becoming obligatory. This significantly reduces the overall productivity of enterprises and organizations because significant resources are now directed toward acquiring hardware and software to defend systems against assaults. Companies typically spend between 7.2 percent and 15.2 percent of their IT expenditures on cyber security each year, according to Lemos (2020). Many man-hours are also lost in adopting security measures that could have been employed to increase profit. According to a Nigeria Communication Commission, NCC (2017) report, people spend more time preventing, diagnosing, or protecting themselves from the repercussions of cybercrime than they are engaged in more productive activities. Employees must input different passwords and undertake other time-consuming tasks to complete their work for the day. Every second spent on these duties is a second not spent working productively.

Cases of Cybercrimes in Nigeria

Every day in Nigeria, numerous cybercrimes are perpetrated. Ladipo (2022) posits that there are 2,308 attacks on businesses weekly in Nigeria, spanning all industrial sectors. Many go unreported because they are unnoticed or impossible to track by the authorities. Some have gained attention, and the offenders have been prosecuted. The following lists a few examples:

1. On March 10, 2018, a group of seven hackers in Lagos used malware to steal N900 million (US\$24,000) from a single bank (Ripple Nigeria, 2022).

2. According to Iwenwanne (2021), in 2019, the FBI arrested 77 Nigerian people, including high-profile entrepreneur Obinna Okeke, for involvement in an enormous internet financial fraud scam totaling about \$11 million.
3. In June 2020, Hushpuppi, a 37-year-old male, was apprehended in a raid in Dubai and later deported to the US. He was detained for allegedly laundering millions of dollars from fraud, cybercrimes, and attempts to defraud an English Premier League club out of £100 million (\$125.5 million) (Maxwell, 2020).
4. According to the Thisday newspaper (2021), the Nigerian Economic and Financial Crimes Commission (EFCC) reported the arrest of more than 400 young Nigerians for internet-related fraud in the first three months of 2021.
5. In a joint operation with INTERPOL, the Nigerian Police Force (NPF) captured 11 alleged members of an extensive cybercrime network between the 13th and 22nd of December, 2021. Many of the suspects are said to be members of the 'SilverTerrier' network, which is notorious for Business Email Compromise (BEC) crimes that have harmed thousands of firms around the world (INTERPOL, 2022).
6. The Federal High Court in Ilorin sentenced three people with cybercrime-related charges on April 7, 2021 (TheGuardian, 2022).
7. On September 2, 2020, EFCC agents arrested 13 persons suspected of belonging to an organized cyber-criminal gang that defrauds unsuspecting victims out of millions of Naira (Ogbonnaya, 2020).
8. The US Attorney General's Office in California indicted 80 people in October 2019 on suspicion of fraud and money laundering violations totaling \$46 million. Of the 80 accused, 77 were of Nigerian origin (AFP, 2019).
9. According to a news statement issued by the Economic and Financial Crimes Commission EFCC (2021), two people, Tobilola Bakare and Alimi Sikiru were convicted of cybercrime on August 9, 2021. Through Business Email Compromise fraud, the hackers successfully robbed three airlines, KLM, Turkish Airlines, and British Airways, of a total of \$1 million.
10. On March 27, 2021, the Economic and Financial Crimes Commission (EFCC) detained a young man, Ibeh Theophilus Uche, and his mother in Lagos for their suspected involvement in computer-related fraud totaling N50 million (Ogune, 2021).
11. On 28 January 2020, a Federal High Court in Lagos convicted Damilola Ahmed Adeyeri and his mother, Alaba Kareem Adeyeri, of \$82,570 in cyber-related fraud (Sunday & Ogune, 2020).
12. Azeez Bamidele, a newlywed man, was sentenced to six months in prison by an Ikeja Special Offences Court in Lagos State on June 10, 2020, for internet fraud (Sunday, 2020).
13. According to the News Agency of Nigeria, NAN (2017), on May 15, 2017, two siblings, Chukwudi Ugwueke and Sophia Ugwueke, were convicted to two years in prison each for internet fraud in Warri, Delta state. They were convicted of unlawful conduct bordering on scamming foreigners via internet frauds.

14. On September 23, 2016, the Economic and Financial Crimes Commission (EFCC) arrested two people, ages 26 and 29, who were involved in various internet fraud operations such as impersonation and internet love and romance scams (NAN, 2016).
15. According to TheCable (2021), eight Nigerians were arrested in October 2021, and are to face charges in the United States for alleged online fraud. The suspects and other conspirators were said to have collaborated from Cape Town to engage in massive internet fraud involving romance scams and advance fee schemes between 2011 and 2021.

Government and Legislative Response to Cybercrimes in Nigeria

According to United Nations Conference on Trade and Development, UNCTAD (2021), cybercrime is an increasing threat to countries at all stages of development, affecting buyers and sellers. United Nations Office on Drugs and Crime, UNODC (2017) adds that the complexity of cybercrime underscores the necessity for an immediate, dynamic, and global response. Governments worldwide are attempting to develop laws to prevent and combat cybercrime. 156 nations have passed cybercrime legislation, according to UNCTAD (2021); however, the distribution varies by area. Europe has the highest rate of adoption, whereas Africa has the lowest.

Uba (2021) asserts that the Cybercrimes (Prohibition, Prevention, and Punishment) Act of 2015 was passed and took effect on May 15, 2015, based on the idea that threats to information and communication technology pose a challenge to Nigeria's national security and have an impact on the nation's economic, political, and social fabric. Imue (2021) posits that the Act's primary goal is to give Nigeria a practical institutional, legal, and regulatory framework for prohibiting, preventing,

detecting, and prosecuting cybercrimes. The Act also aims to advance cyber security and the defense of electronic communications, data and computer programs, computer systems and networks, intellectual property, and privacy rights. The Federal Ministry of Justice and the Economic and Financial Crimes Commission (EFCC) are the two central prosecuting agencies under the Act. Other vital participants include government organizations and private-sector companies, although the National Security Adviser is in charge of overall national cyber security actions (Uba, 2021).

According to Nigerian Computer Emergency Management Team, ngCERT (2021), the Cybercrime Advisory Council (CAC) was set up to coordinate the Cybercrime Act 2015 and was given the duty of developing general policy guidelines for preventing and combating cybercrimes as well as facilitating cyber security in Nigeria. Uba (2021) adds that CAC was established in March 2016 in compliance with Articles 42 and 43 of the Cybercrimes Act, with members representing a wide range of ministries and agencies reporting to the National Security Adviser.

Other legislation has been proposed in addition to the Cybercrimes (Prohibition, Prevention, and Punishment) Act of 2015. For example, the National Assembly is now debating a draft Data Protection Bill 2020. According to PwC (2020), Bill's goal is to establish a legal framework for the protection and processing of personal data and to preserve data subjects' constitutionally protected rights and liberties. Uba (2021) posits that the National Assembly approved the Data Protection Bill in 2019, but the President did not sign it. The law was resubmitted to Parliament for approval after the presidential elections, and it is currently being resumed to continue the legislative process.

Review of Empirical Studies

Ahern, Feller and Nagle (2016) conducted a study on social media as a support for learning in universities: an empirical study of Facebook

Groups; with the central objective of specifically creating an understanding of what motivates university students to use Facebook in their academic activities. Using the Student Technology Use Hierarchical Framework, which is drawn from the Uses and Gratifications Theory and the Means-End Chain Theory, the survey drew 260 responses representing 53% of the population which comprised undergraduates. Part of the findings showed that these students love social media generally but preferred Facebook Group because of its interactive nature, which they claimed satisfies their higher-level information exchange and decision-making requirements. Irrespective of which platform is preferred, the result generally indicates that social media have become useful tools in academic development among students.

Moon, McCluskey and McCluskey (2010) in a study on the general theory of crime and computer crime, explained computer crimes using the self-help computer theory. With a sample population of 2,751, they collected data from a nationally representative population of Korean adolescents and their parents to understand various issues; Korean youths experience; for example, in the area of cybercrime and fear of crime. Their findings indicate that in line with the theory's suggestion, long hours of computer use made the users vulnerable to computer crimes. This is because of the intense curiosity and information on discoveries shared by other classmates.

In a study by Bossler and Berenblum (2019) on the introduction of new directions in cybercrime research aimed at categorizing the different aspects of the menace called cybercrime, the authors, based on their findings, concluded that it was merely impossible to compute the number of cybercriminal acts that occur across the world, from cyber trespass to cyber deception, which include identity theft, online fraud, digital piracy; cyber porn/obscenity or what they call child sexual exploitation material, and cyber violence. The scope keeps expanding.

Ahmad, Wisdom and Isaac (2020) conducted an empirical analysis of cybercrime trends and

their impacts on moral decadence among secondary school students in Nigeria, with the objective of establishing the depth of students' involvement in crime in Nigeria and their vulnerability. The research focused on two states—Kebbi and Sokoto. They administered questionnaires to the students at home, away from the influence of their teachers. The study revealed ages, the number of social media accounts each of them had, how often they visited pornography sites and their knowledge of the internet. Although the study does not present the sample size and the theoretical framework adopted, it is used to confirm the fact that “students at almost all academic levels” are in different ways involved in cybercrime in Nigeria.

Omodunbi, Odiase, Olaniyan and Esan (2016) have examined cybercrimes in Nigeria: analysis, detection and prevention. The objectives were to analyze cybercrimes carried out in prominent sectors in Nigeria and present a brief analysis of cybercrimes in tertiary institutions in Ekiti State. They evaluated the extent of students' involvement in the crime to determine the level of their vulnerability in such situations. Three universities were chosen, and 600 students were sampled in questionnaires with 15 questions. The results showed that most students spent more time on social media platforms. Without admitting to the crime, 81% of the respondents replied that cyber crimes were usually executed from home; and 88% said they had been victims of cybercrime known as ‘phishing’. One significant finding of the research was that cybercrimes are principally carried out by the youth who spend a long time on the internet.

Lazarus (2016), in a study on socioeconomic cybercrimes in Nigeria, came up with some revelations. The study aimed at exploring parents' perceptions of the numerous issues that lead to socioeconomic cybercrime in Nigeria, examining how a child's family environment could shape and determine the child's behaviour; and how this can help in combating cybercrime among juveniles. Adopting the qualitative methodology, the study covered 17 parents. It administered in-depth semi-

structured questions involving face-to-face interviews. Responses were then coded. Findings showed that a good family environment, a broken home, the culture of the home, parental upbringing, corruption, peer group and university environment, were cited by parents as factors that determine a child's criminal attitude. The conclusion was that a child's susceptibility to involvement in cybercrime activities would be determined by the depth of that child's exposure to influences posed by these factors.

Theoretical Framework

According to Nuth (2008), the development of information and communication technologies (ICTs) has a significant impact on crime; it increases the number of opportunities for corruption and encourages criminal behavior, causing crime to rise at an unprecedented rate. Europol (2017) reports that while several technological advancements play a significant part in a broad spectrum of criminal activities, none has probably had a more significant impact or influence than the internet. Each year, criminal organizations and individuals continue to make billions of Euros from their operations in the EU. Also, Bavel *et al.* (2019) reason that social engineering attacks are now commonplace and considered one of the most significant threats to organizations and individuals. They argue that researchers and security professionals have reported that human behavior is the 'weakest link' in any security chain. Based on these arguments, therefore, this study is anchored on Technological Determinism Theory and Protection Motivation Theory. While Technological Determinism Theory helps with seeing how advances in technology impact current trends of crime in society, Protection Motivation Theory will help evaluate people's protection behavior under the threat of cybercrime.

According to Marshall McLuhan's 1964 theory of Technological Determinism, as we advance from one technological age to another, technology impacts how each member of society

thinks, feels, and behaves and how society functions. In Asemah (2011), McLuhan believes that technological inventions cause cultural changes. According to Jan, Khan, Naz, Khan, and Khan (2021), McLuhan divided human cultures into four eras: the tribal age, the literate age, the print age, and the electronic age. The tribal period was followed by the literate age, which gave way to the print age, which then gave way to the era of electronic communications. The day's technology transformed people's lifestyles according to their respective ages. For instance, the rise of industrial civilization was facilitated by the discovery of steam power, and the information era was ushered by the invention of computers and the internet (Theory, 2022).

Protection Motivation Theory (PMT) was first introduced by Rogers (1975), to understand better the effects of fear appeals on health-related attitudes and behavior. In 1983, Rogers revised the theory with an emphasis on the cognitive processes of mediating behavioral change. The Protection Motivation Theory deals with how people cope with and make decisions in times of harmful or stressful events in life. According to Rajendran & Shenbagaraman (2017), PMT claims that four things impact a person's intent to protect them from dangerous or hazardous occurrences. (i) the severity of the harmful or threatening event (perceived severity), (ii) the likelihood of the event occurring (vulnerability), (iii) the effectiveness of the planned preventive steps (response efficacy), and (iv) the ability of the person in executing the plan to reduce the effect of a threatening event (self-efficacy).

The threat appraisal (perceived severity and vulnerability) indicates the degree of significance of the event. Higher threat appraisal indicates a decreased likelihood of maladaptive behavior. The coping appraisal (response efficacy and self-efficacy) focuses on the adaptive responses; it determines a person's ability to cope with a threat and take steps to avoid it. Bavel, Rodríguez-Priego, Vila, & Briggs (2019) opines that strong threat appeals, when presented alone, are ineffective. In

contrast, strong threat appeals presented in combination with coping messages have produced the most significant behavioral change, despite the associated response costs.

The justification for anchoring the study, first on Technological Determinism Theory is that in every generation, each technology determines the behaviour of the society, especially the youth. As explained by Asemah (2011), the culture or way of life of the people in a given era is influenced by a subsisting technology. In this particular study, this theory establishes how the internet technology determines the behavioural pattern of Nigerian Netizens. The relevance of the second theory, the PMT, is based on the fact that cybercrime affects both the victims and the morals of the society. The theory explains and analysis steps taken by the security system and the would-be victims to safeguard the public and individuals against cybercrime threats.

Research Method

The study combined both qualitative analysis of relevant literature with primary data gathered from

20 participants in a 7-point in-depth interview. This approach was deliberately adopted to enrich the data contents of the study. The participants were purposively picked from the six geopolitical zones of Nigeria. As a country with more than 250 ethnic groups, Nigeria is divided into six geopolitical zones. Picking participants from the zones therefore means that every part of the country is represented in the research. Among the participants were business owners, students, civil servants, journalists, and social workers. They cut across different age brackets. The youngest was 16 years while the oldest was over 50. The secondary data for the study were assembled from extant scholarly literature and outcome of various empirical studies published on the subject matter in reputable academic journals.

Data Analysis

The following tables provide details for Socio-Demographic, Social Media presence, and Social Media usage, respectively.

Q1: Demographic Distribution

Table 1: Socio-Demographic Details

Location	Frequency	%
North Central	4	25
North East	3	10
North West	3	15
South South	3	15
South East	3	15
South West	4	20
TOTAL	20	100
Occupation	Frequency	%
Business Owners	3	15
Students	4	20
Civil Servants	5	25
Journalists	4	20
Social Workers	4	20
TOTAL	20	100
Age Range	Frequency	%
16 – 20	2	10
21 – 30	4	20
31 – 40	9	45
41 – 50	3	15
51 and above	2	10
TOTAL	20	100

Source: Field Study, 2022.

Table 1 above has three sub-tables that deal with the demography of the respondents — from age to gender, occupation, and geographical locations. The first sub-table indicates in the first column, the six geo-political zones where the participants stay. The second column states the study population in each of the zones while the third column shows the percentages of samples.

The second sub-table shows the occupations of respondents from each of the geo-political zones

and the percentages. While civil servants top the list with 25%, students, journalists and social workers were 20% each, and business owners was third with 15% of the total number of participants. The age differences among the respondents are displayed in the last sub-table. It shows the age range, the number of respondents within each of the age brackets and the percentages. The lowest age bracket is between 16 and 20, while the highest is between 50 and above.

Table 2: Social Media Presence (Various Social Media Platforms)

Platform	Presence	Platform	Presence
Facebook	19	Snapchat	2
Instagram	15	TikTok	1
YouTube	6	Reddit	1
WhatsApp	19	Amazon	1
Telegram	6	Aliexpress	1
Linkedin	7	Jumia	1
Twitter	10	Konga	1
Google Meet	1	Medium	1
Zoom	1	Messenger	1
Signal	1		

Source: Field Study, 2022.

Table 2, displays, in four columns, the different social media platforms patronized by the respondents. In all, 19 social media platforms are indicated. Facebook and WhatsApp platforms attracted the highest patronage of 19 out of the 20 participants in each case. This demonstrates the popularity of the two platforms. Instagram and

Twitter polled 15 and 10 participants, respectively, while LinkedIn, YouTube, and telegram were patronized by 7, 6 and 6 participants, respectively. Apart from Snapchat, which had two persons, other social media platforms had patronage from one person each.

Table 3: Social Media Usage (Frequency of Usage)

Intensity of Use	Frequency	%
All Day	0	0
6 - 15 hours	5	25
3 - 5 hours	9	45
1 - 2 hours	3	15
Sparingly	3	15
TOTAL	20	100

Source: Field Study, 2022.

Under Table 3, each respondents' usage of the social media platform is measured. These are expressed in numbers and also in percentages. Among the respondents, 25% said they spend between 6 and 15 hours on the social media a day; and 45% spent between 3 and 5 hours. While 15% of the respondents are on the social media for a

maximum of two hours daily, another 15% of the population said they use the platforms sparingly. As would be seen under Discussion, the longer the number of hours people are exposed to the use of the social media, the more vulnerable they are regarding exposure to certain criminal acts associated with the cyber world.

Table 4: Activities people engage with on social media

Activities	Frequency
Entertainment	11
Networking/Socializing	12
Information gathering/news	8
Messaging	4
Commerce/Banking	10
Communication/Meetings	7
Education	6

Source: Field Study, 2022.

Table 4 displays individual responses to what each participant seeks on the social media. Among them, 12 persons confirmed that they patronized the social media for networking or social reasons, while 11 participants claimed that they visit the different social media platforms for entertainment.

Ten participants said their social media patronage was for business involving banking and commerce; eight said they did so in search of information and news, while seven persons mentioned communication and meetings as reasons for their patronage. In all, six persons said they were usually on social media for educational purposes, while four persons said they were there for messaging.

Q2: Knowledge, use of social media and awareness of cybercrime

All 20 participants admitted that they were familiar with and use of various social media platforms, including Facebook, WhatsApp, Twitter, Instagram, YouTube, Zoom, and many others, as seen in table 2 above. While the frequency of usage varied from one participant to another, it was observed that participants could be easily grouped from sparing users to heavy users. People, on average, spend between 3 hours to 5 hours daily on social media, as illustrated in table 3. This indicates the depth of pull that social media have on people generally, using this population as an example. Social media have become an irresistible phenomenon across age barriers.

On what exactly they do while on the social media platforms, participants indicated that they

use social media for a wide range of activities, including but not limited to entertainment, as sources of news and information, networking and socializing, messaging, commerce/banking, and education. Networking and socialization, entertainment, and commerce/banking showed to be the highest activities participants use social media for in Table 4 below. These findings, on close examination, showed that most of what is coded as entertainment could be pornography and cyber sexual adventures. At the same time, networking and socialization, commerce and banking, could actually refer to activities that are criminal in nature.

These assumptions were confirmed when all the participants, individually, said they were aware of the booming cybercrimes business like Identity theft, Romance Scam, Business Email Compromise, Cyberbullying, Pornography, Fake News, Financial Frauds (Yahoo, yahoo), and Phishing. The most resonant with them are Identity Theft, Business Email Compromise, and Financial Fraud. Meanwhile, of the 20 participants, 16 have had an experience or know someone close to them who has had one. A few of their experiences are highlighted as follows:

A woman I worked with who lives in the UK was in a relationship with a Nigerian who impersonated a white man and duped her of 75 pounds. (P-6).

My ATM details were obtained from a website I made a purchase from. The hacker used the

information to make purchases from another website. (P-16).

A friend has duped 300,000 Naira while trying to make an online payment and was asked to click on a link. (P-18).

Q3: Actions people take when attacked

After admitting that they were aware of cybercrimes and the fact that some of them have been victims, participants said they have learnt to apply various actions and defense options when they come under cyber attacks. They do these in order to mitigate future occurrences. One of them said they moved their fund from the hacked account to a safe account and disabled the functionality of the hacked account. Another participant said they changed the security settings of their accounts and created limited access to such accounts. Other actions include activating double authentication settings of affected accounts, sending out messages to contacts and asking them to disregard malicious contents from the hacked account, reporting to the police; blocking all debiting on the account through the bank's app; and re-issue of affected ATM cards. One participant said;

I deleted the app and stayed off it for over two years (Facebook). (P-3).

All these confirmed that either as a victim or participant in cybercrime, participants are fully aware of the threats, the execution and the consequences of cybercrime. Some might be lured into the crime while others fortify themselves against such crimes.

Q4: Awareness of existing cybercrime laws and their effectiveness

The reason a negligible percentage of the participants said they sometimes reported the threat and actual cybercrime act to the police is that they are aware of existing laws against the act. In all, 14 out of the 20 participants said they were unaware of any existing legislation for combating cybercrime in Nigeria. Only 4 participants said

they were aware of the Cybercrime Act 2015, but out of these number, a participant said;

Yes, but there is hardly any publicity or promotion of the said law considering the rate at which cybercrime happens. (P-18)

Both those who are aware of existing laws and those who said they were not, agreed that no such law was sufficiently effective to combat the rising cybercrime wave. It is either they have been involved in the crime and the law could not prevent them, or they have been victims who have found the law not combative enough to protect them. According to a participant;

The law has empowered the police, Economic and Financial Crimes Commission, EFCC, and other law enforcement agencies to tackle cybercrime. Still, it appears that the law has not effectively reduced cybercrime. (P-3).

Q5: How cybercrime can be minimized

All the participants expressed loss of confidence in any existing law in Nigeria meant to eradicate or even reduce cybercrime from the system. The only panacea, according to them, is for individual victims or those facing threats of attack to fortify their accounts against any such attack. Participants reasoned that cybercrimes could be minimized through the use of strong passwords that are frequently changed by account owners, minimal sharing of personal information online, reduction of online transactions, and investing in cyber security tools and recovery software. But none of them forgot that some people with multiple online social media accounts would find it difficult to sustain different passwords required to keep those accounts safe. The suggestion to reduce online transactions, including banking, also faced reservations even from those who suggested it. Curiously, no participant strongly recommended further legislation by the government or expressed any confidence in the ability of law enforcement agencies to combat cybercrime successfully in Nigeria.

Discussion

The first objective of the research was to evaluate the level of cybercrime awareness in Nigeria. The survey finds that every participant in the interview has a presence on many social media platforms, which has an impact on a variety of elements of their lives, including communication, networking, and information and news sources. This is equally confirmed by the findings in an empirical study by Ahmad, Wisdom and Isaac (2020) in which all the students questioned had several social media platforms, which they visit regularly. Smitherson (2012) supports this claim by stating that there is no doubt or room to refute the successful impact of these social media platforms on our daily lives, professional lives, and even business. The data also backs up Marshall McLuhan's idea of Technological Determinism, which holds that technology influences how each member of society thinks, feels, and behaves, as well as how society functions as a whole. Despite social media's many advantages for society today, according to Onadipe (2021), it is also a haven for cybercriminals looking for unwary victims. All participants who were interviewed agreed that they were aware of crimes involving social media, which lends credence to Onadipe's assertion. The study by Omodunbi *et al.* (2016) also showed that 88% of respondents agreed that they have been victims of cybercrimes, especially phishing.

The second objective of the research was to evaluate the types of cybercrimes in Nigeria. While participants interviewed mentioned identity theft, romance scam, business email compromise, cyberbullying, pornography, fake news, financial frauds (yahoo, yahoo), and phishing as common cybercrime perpetrated in Nigeria, they think that identity theft, business email compromise, and financial fraud are the most prevalent. Bossler and Berenblum (2019) in their study confirmed this pattern of cybercrime across other climes, including Nigeria. Iwenwanne (2021) supports this view by submitting that identity theft, business email compromise, and financial fraud are still pervasive to the point that the FBI has a warning on its official website advising against responding

to emails from Nigeria requesting personal or banking information. According to a recent ThisDayLive article, Aragba-Akpore (2022) stated that the Economic and Financial Crimes Commission (EFCC) stormed a "419 training school" in Lagos in May 2019 and arrested the proprietor as well as eight students who were allegedly being taught techniques to commit cyber fraud. In addition, on May 12, 2022, the Commission arrested the owner of a "yahoo yahoo" academy in Abuja during a sting investigation. These trends indicate that identity theft, company email compromise, and financial fraud are on the rise.

The third objective of the research was to evaluate if relevant legislation is in place to combat cybercrimes in Nigeria. The study discovered that the government had enacted legislation to combat cybercrime, the Cybercrime Act 2015. However, only four (4) of the twenty (20) people interviewed were aware of it. One of the participants who were familiar with the law claimed that, given the frequency of cybercrime, there is hardly any exposure or promotion of the relevant law (P-18). Another participant (P-3) acknowledges that the law has empowered the Police, Economic and Financial Crimes Commission, EFCC, and other law enforcement agencies to tackle cybercrime but that the law has not been effective in reducing cybercrime. To support this claim, Aragba-Akpore (2022) says that although the legislation is supposed to control the rising crime rate, surprisingly, young people are still involved in it.

The fourth objective of the research was to find ways to mitigate cybercrimes in Nigeria. In addition to its consequences of data loss and damage, money theft, loss of productive time, intellectual property theft, theft of personal and financial data, fraud, and reputational harm (Calif, 2020), cybercrime, according to Rainer Bohme and Moore (2012), threatens to impose even higher opportunity costs by discouraging online involvement for fear of becoming victims. This agrees with Brands and van Wilsem (2019), who argue that fear of online crimes can limit people's

perceptions of online freedom and possibilities. According to Johansen (2020),

When you hear and read about the range of cybercrimes out there, you might be tempted to stop using the internet entirely. That's probably too drastic. You can, however, take precautions to help protect against it.

According to the Prevention Motivation Theory, the threat of a bad outcome sets off two separate parallel cognitive processes called threat appraisals and coping appraisals. One's motivation to protect is higher when the appraisals are stronger. The study reveals that the threat of cybercrime is real enough to elicit people's coping responses. However, Omodunbi *et al.* (2016) suggest in their study that mitigating the occurrence of cybercrime can be achieved if the government focuses on improving the welfare and well-being of Nigerians, especially the young ones. In addition, they believe that the youth should be properly educated and orientated on the avoidable negative impacts of the business.

While it is unclear to participants what steps the government is taking and whether those activities are sufficient to reduce cybercrime in Nigeria, people indicate that they have put various measures in place to protect themselves from cybercrime threats. Some of the steps people take include moving money from a compromised account to a safe account and shutting down the compromised account's functionality, changing account security settings and limiting access to such accounts, turning on double authentication settings for affected accounts, sending out messages requesting that contacts ignore malicious content sent to them from a compromised account, and reporting cyber attack cases to the Police.

Conclusion

The impact of technology on society has resulted in both possibilities and challenges. While technology continues to positively impact many aspects of human endeavour, including communication, education, commerce, and many

other fields in the speed of delivery and product quality, one sad problem of technology is cybercrime. The study's findings showed that Nigerians are well aware of cybercrime; identity theft, business email compromise, and financial fraud are Nigeria's most common types of cybercrime. Although Nigeria has legislation to combat cybercrime, it is ineffective due to a lack of public knowledge. People appear to take action to reduce cybercrime because the public is unsure of the government's position. It is proposed that additional study is required in order to fully understand the Nigerian government's initiatives in this regard.

Recommendations

Cybercrime prevention involves ongoing government, corporate institutions, and individual strategy changes. The following are recommendations for preventing cybercrimes in Nigeria:

- i. Nigerian citizens should use strong passwords that are updated regularly.
- ii. The public should be constantly kept aware of information regarding security breaches.
- iii. Government should create jobs and educational opportunities for the youth to prevent them from looking in the direction of crime.
- iv. The government should enact effective laws that the public is aware of and penalize criminals.
- v. The glamourization of money with unknown sources should be discouraged in society.

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Determinants of Health Challenges and Healthcare Services among Older People

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Abstract

Old age should be a leisure period, but for some older adults, it is the opposite due to lack of adequate care which has compelled some of them to beg at public events and parks or work at odd places. In underdeveloped nations like Nigeria, governmental and public plans seldom address socio-economic and gender concerns that affect older adults' health. However, findings from secondary data and online libraries affirmed that older adults lack essential health, medical, and social care, which are determined by the political economy of a country and the expenses associated with such provisions. Though elders are crucial to society, dishearteningly, they have been consciously and unconsciously abandoned in Nigeria compared to wealthy nations where they get adequate healthcare services, leaving them with no hope for tomorrow. Youngsters find it difficult to acquire suitable jobs after education, dashing the hopes of older adults who have invested in them to receive support when ageing. Poor health among older adults is worrisome since they are often neglected and exposed to health challenges such as malnourishment and other old age-related issues, reducing their pleasant social activities. The paper also found that poverty, lifestyle, marital status, and gender, among others, determine quality health among the elderly and concluded that such determinants worsen healthcare services for older adults. Maintaining healthy behaviours throughout life, mainly eating a balanced diet, engaging in regular physical and mental activity and capacity, delaying care dependency and refraining from tobacco use, are found to be significant to optimal health conditions among older adults. The paper concludes that addressing social challenges faced by young people will contribute significantly to achieving good health in old age.

Keywords: Ageing, aged, health, health determinants, healthcare services, older adults.

Introduction

Improving older adults' health requires focusing attention on their social conditions, which could increase life expectancy and extend the human life span. Older age is a biological phenomenon having medical, psychological, economic, social, and cultural traits and idiosyncrasies. Longer life span is a product of the modern era, a feature of the developed society and one of the United Nations' most significant 21st-century focus. Though adding years to one's life does not guarantee a high quality of life, however, ageing often brings biological health challenges such as impaired sight and hearing, reduced organ functionality, loss of mobility or autonomy, as well as social declines, which is older adults' withdrawal from professional life and society. Older adults are marginalised, neglected, often abused and faced with social death before biological death (Fonta *et al.*, 2017). Ageing is a realistic concept that has been linked to dementia, arthritis, heart disease and diabetes (World Health Organisation, 2021). Hence, science and experts must therefore offer timely and appropriate responses on individual, societal, and global levels.

Nigeria's extended family has traditionally cared for the elderly by providing a lot of support through help from relatives, friends and children (Okumagba, 2011). Large families in Nigeria were motivated by the need for elderly age security from children. Therefore, the decline in family support networks, poor economy, increased unemployment, underemployment and inflation have deprived many families, particularly children, to adequate care for older parents. In rural sub-Saharan Africa, urbanisation often separates young people from their families, who are agents of traditional education and socialisation. According to Gesinde *et al.* (2011), elderly Nigerians most times face insufficient customary family support, poor access to healthcare, social exclusion, and poor social security. These challenges have been triggered by the exposure of youngsters to the HIV/AIDS epidemic and the nonchalant attitudes of the government towards the care of the elderly,

which have resulted in the early deaths and incapacity of the young and left the elderly with less support and the burdens of caring for orphans.

Mudiare (2013) observed that most elderly Nigerians do not work, experience increased dependency, isolation, loneliness, and bereavement due to spouse and friend losses and more vulnerability to poverty and disease, and are usually left behind due to declining physical ability. Similarly, WHO (2021) revealed that older adults are more likely to have reduced mobility due to muscular-skeletal changes and certain diseases such as cataracts, arthritis, heart disease and diabetes. The elderly may occasionally be excluded from social events, which could negatively impact their health. These can cause them to become confused and senile and prohibit them from receiving food, housing, medical, emotional support, personal hygiene, and environmental health benefits. Access to high-quality healthcare for the elderly is hampered by cost and location; therefore, many older adults get exploited by herbalists and traditional healers who mostly render services to them. Even though some senior citizens self-medicate to keep themselves healthy, they still face difficulties in accessing quality healthcare services that are crucial for optimal health. Against this background, this paper explores the determinants of health challenges and healthcare services among the aged population in Nigeria.

Conceptual Review

The Concept of Ageing

The term ageing has gained lots of attention over the years as the population of older adults keeps rising. According to Hagberg (2008), ageing is defined as a periodic change in human life, which means man and the conditions he is subjected to change as time passes constantly. Plank *et al.* (2011) see ageing as a process that cannot be avoided, a slow process that could mean gradual degeneration in the structure and vital organs of both humans and animals, which happen as time passes. This degeneration is not affiliated with

diseases or other types of profound disabilities, but with time, it may eventually lead to death. Ageing is not seen as an illness but rather as being associated with independent risk-factor of disability and death. When ageing sets in, the standard functionality of the body system begins to decline, and this marks the beginning of another life. The new life, referred to as ageing, becomes an important study area for researchers. According to Plank *et al.* (2011), present investigations are directed towards ageing, age-related changes and their impact on health. In this paper, ageing is described as an inevitable change, including social, economic, physical, psychological or cultural, that people experience as they grow old.

The Concept of Old Age

There is no specific age to describe old age. However, it is a period in a person's life when the body's system diminishes in functionality. It has been challenging to set a certain age for old age; different ages are considered old in different countries. According to Robertson (1996), in his discussion on 'what is old age?', the retirement age for judges in the United Kingdom is 70, and the pension age for women is raised to 65. A study carried out in Sweden sets old age at 76, while the study conducted in Finland about depression among older adults considers the category of people with age 60 years and above as the old age class. The elderly could be referred to as people that are older than 60 years; some people set it to be 65, while some authors raised it to be a person at 70 years of age or older (Kotkamp-Mothes *et al.*, 2005). Therefore, old age could be described as a period in a man's life when he cannot adapt appropriately to do what he had been previously adapted to. In this study, old age refers to a period in which a man or female has reached or surpassed 60.

Determinants of Health Challenges among the Aged Population

Identifying and understanding the drivers of the health challenges of the elderly, whether they are

related to conditions and socio-economic inequalities, individual characteristics (biological, psychological, genetic), or behavioural, physical environment, access and use of health services, including cultural and gender differences, are crucial for the development of healthcare policies for the aged population. Fajemilehin and Odebiyi (2011) found in their study, using exploratory, descriptive and cross-sectional study and snowball techniques to purposively select three hundred elderly, 60 years and above, that traditional lifestyles, educational status, having personal money in old age and gender were major drivers of quality life and positive health behaviours among the elderly. This implies that the absence of these drivers can result in poor health among the elderly. The study, which purposively selected ten traditional core health districts in Ife/Ijesa zone of Osun State, Nigeria, found that variations on the influence of other socio-demographic and economic characteristics of the participants, such as living with a spouse, peer relationship, type of marriage and residential location, were significant drivers of health among the elderly. In addition, the study concluded that the elderly traditional lifestyles, educational background, state of finance, gender and marital stability contributed much to positive health practices and quality of life. As beautiful as the study's findings were, the authors failed to subject their findings to theoretical explanation. Hence, this paper bridges the gap by adequately providing a theoretical framework to understand and assess the drivers for the health challenges of the elderly.

Mojoyinola and Ayangunna (2012) discovered that stability in family contracts and the socio-economic status of the elderly are drivers that account for the possibility that a reciprocity relationship would exist between the elderly and their family members and the ability to purchase needs. Inferentially, these factors are deemed indispensable for enhancing the health status of the old; in their absence, the health status of the elderly is jeopardised. Fajemilehin and Odebiyi (2011) expressed that marital status significantly impacts

the health of the elderly because living with a spouse and the type of marriage (be it monogamous or polygynous) promote quality life in old age are relevant for positive health behaviours such as the utilisation of health facilities, using their drugs as prescribed as well as eating and drinking on time in a clean and wholesome environment.

Poverty has also been a driver for health challenges among rural elderly persons (Akpomuvie, 2010). Accordingly, poverty in Nigeria is disproportionately distributed across rural and urban areas but higher in the rural and urban fringes than in the urban areas and significantly higher in the Northern part of the country. In a study of the elderly in rural communities of North Central Nigeria by Adebowale *et al.* (2012), findings revealed that 49.1 percent of the elderly population did not perform well in four measures of well-being, namely, physical, social, psychological and environmental. Accordingly, elderly persons who were married, regularly visited by their children, and who received financial support from their children were less likely to report poor health than those who were lonely and had no financial support. These findings speak volumes for a system that must promote social and economic support for the elderly.

A study conducted by Fonta *et al.* (2017), using multivariate regression analysis in the form of a binary and ordinal logistic regression to determine the association between socioeconomic, demographic and health-related factors among the elderly in Ghana showed that older adults with one or more than one chronic condition were more likely to report poor health. The study, which was conducted among 2,613 elderly persons using data drawn from the World Health Organization's (WHO) Study on global ageing and adult health (SAGE) Wave 1, established that the elderly who rarely engaged in exercise, had never worked in a lifetime and lived with functional limitations and disabilities were more likely to experience health challenges. Also, it was found that respondents in the highest income bracket, former tobacco users

and those satisfied with certain aspects of life, respectively, were more likely to report good health. The study concluded that the health of the elderly was in part determined by their birth, upbringing, and lifestyle. The findings indicated that addressing social challenges at a young age will go a long way toward achieving good health and that people with physical limitations and disabilities are most susceptible to unmet healthcare needs and support systems from the government, policymakers, and family.

Most findings have shown a significant relationship between certain social, economic and demographic drivers affecting the elderly health. French *et al.* (2012) observed that it is important to examine past life experiences, including cultural factors, historical (wars), and national factors (availability of health services), together with individual characteristics when exploring differences in reporting older adults' health. Wang *et al.* (2014), in a study conducted among elderly refugees living in South Korea, found that poor health was related to individuals of low socio-economic statuses, elderly females and those with physical and mental disabilities, including other chronic conditions, owing to past wartime experiences and economic recession. Similarly, Krokstad *et al.* (2002) discovered that individual drivers like low educational attainment increases the chances of reporting poor health among the elderly. A possible pathway could be through lack of employment, low economic condition and consequential inability to take care of healthcare needs. In the same way, socio-cultural drivers impact the quality of health across racial-ethnic groups, owing to the different perceptions of health (Landrine *et al.*, 2016).

In a study conducted by Lindstrom (2019), it was found that being single or divorced increases the chance of reporting poor health among the elderly owing to emotional instability, loneliness and economic vulnerability. In the same light, the study by Theme-Filha *et al.* (2013) revealed that low income, poor lifestyle choices such as smoking, excessive drinking and lack of exercise

are risk factors associated with health challenges among the elderly. A sedentary lifestyle predisposes one to diseases; for instance, smoking increases the chances of dying from medical conditions like ischemic heart disease, lung cancer, stroke and coronary heart disease (Centres for Disease Control and Prevention, CDCP, 2016). Accordingly, physical activity in the form of exercise can reduce the onset of chronic disease and thus improve health outcomes. Some of these health consequences are reversible when the individual is no longer exposed to these poor habits. In terms of physical health, a growing body of evidence relates functional limitations and disabilities to poor health (Landrine *et al.*, 2016; Fonta *et al.*, 2017).

In a study conducted by Ibitoye *et al.* (2015) to examine the psychological well-being of the elderly in Ijumu local government area (LGA) of Kogi State, Nigeria, using a multi-stage sampling technique to select 1,217 elderly aged 65 years and above randomly, findings showed that a higher proportion (53.3%) experienced good psychological well-being. This was associated with age, level of education, current working status and financial assistance from children. The study, which analysed data via descriptive statistics, chi-square tests and binary logistic regression, found that good psychological well-being decreased with increasing age and was lower among those with no education and primary education compared with their counterparts with secondary education or more. Also, those currently working and receiving financial assistance from children had better psychological well-being. On this note, Dokpesi (2017) claimed that good psychological well-being is threatened by increasing stressors and poor conditions, which also increase the chances of disability, frailty and death.

The WHO (2021) reported that globalisation, technological developments such as transport and communication, urbanisation, migration and changing gender norms are influencing the health status of older adults in both direct and indirect ways. Supportive physical and social environments

also enable older people to do what is important to them, despite losses in capacity. The availability of safe and accessible public buildings, transport, and easy walking places are supportive environments. By implication, the lack of these social opportunities and support systems promote poor health among elderly persons. The WHO (2021) noted that developing a public-health response to ageing by strictly focusing on individual and environmental approaches and adaptation increases the drive for psychosocial growth of the aged population to health and well-being.

Health Care Services for the Aged Population Short- and Long-Term Health Care Services

Ageing is associated with functional decline, health and social support needs. Traditionally, the responsibility of providing long-term care and support for older persons has been accepted by African families. However, modernisation, urbanisation and increased participation of women in the workforce have reduced available primary family caregivers for older adults. Consequently, many families cannot provide long-term care and support for older adults (Cadmus, 2020). According to the WHO (2021), long-term care includes the activities undertaken by others to ensure that individuals at risk of significant loss or with ongoing loss of intrinsic capacity can maintain a functionality consistent with their basic rights, fundamental freedom, and human dignity. Types of long-term care vary and depend on the individual's functional decline and disability (Cadmus, 2020).

With the rising prevalence of chronic diseases, the health system in Africa is less prepared to meet the healthcare needs of the elderly, with little infrastructure and few specialised personnel for older populations (Fonta *et al.*, 2017). Accordingly, in terms of health access, most elderly persons with poor health use health facilities provided by the National Health Insurance policy, which offers free healthcare to elderly persons above 70. While this is seen as a positive development at the national level, the

quality of services rendered is not encouraging, and the range of services offered is limited. An inference from this review is that older adults are still valued, but caregivers could be stressed and depreciate the assistance. Developing countries like Nigeria need to consider what types of public care the elderly and their families would need.

Institution-Based and Non-Institution-Based Health Care Services

Institution-based care places the older person in a formalised care setting or arrangement; while non-institution-based care supports the individual within the home or community. However, non-institutionalised long-term care has evolved. Thus seen, the concept of “Aging in Place” focused on the preference of older persons to remain in their homes with care provided at the person’s residence without relocation of the individual to a residential facility. However, the definition has grown to include various arrangements, such as retirement communities and assisted living facilities. The concept of “Aging in Place” is particularly relevant in the traditional African setting, where older persons prefer to remain in their homes and familiar environments.

In Nigeria, health services, welfare services and social policies are skewed in favour of young people, especially women and children, thereby leaving the elderly very far behind (Dugarova, 2018). Accordingly, there is no formal social security or welfare for the older population compared to developed countries. The only thing available is a contributory pension scheme such as National Health Insurance Scheme (NHIS) for those who have worked with the government, and their number is relatively small compared to the general population. Nigerian society, however, like many other developing nations, has paid little or no attention to this sub-group due to a lack of a formal structure of care and social support networks (Fajemilehin and Odebiyi, 2011). As a result, the world of older people largely depends on the informal, traditional family support systems, which have weakened today, although many older adults

in Nigeria continue to rely on their children for financial support to meet their daily needs.

Traditionally, older persons in Nigeria were known to enjoy informal social support from close family relations like spouses, children, daughters-in-law and sons-in-law. These forms of support are fading due to the rural-urban migration of youngsters, changes in family structure, increasing unemployment, the rising cost of living and shrinking income (Dugarova, 2018). This corroborates the assertion of the Report by the United Nations, which says, “with increased population mobility and urbanisation, as well as fewer intergenerational households, the provision of household-based social support is becoming more challenging” (UN, 2017 cited in Dugarova, 2018, p. 14). In Shanghai and Beijing, privately run elderly-care institutions account for more than 80 per cent of the total elderly-care institutions, higher than what is obtainable in Nigeria. In China, there were more than 170,000 elderly-care institutions and facilities, with more than half of the institutions privately run nationwide to improve the quality of elderly-care services through adequate funding (Nigerian Newspaper, 2019).

A study conducted by Peil et al. (2019) to examine the support that elderly Nigerians get in the form of services from family, relatives and non-relatives and the effect of their age, sex, location (urban/rural) and state of health on the provision of these services, revealed that children are by far the most important source of assistance, followed by grandchildren. Furthermore, few older adults were found to have neither children or grandchildren available to help them. However, the study failed to note that increasing levels of migration may also deprive older adults of their children’s services and some move to get the care they need. Mascitelli *et al.* (2016) buttressed that women enjoyed more social support through care giving from grandchildren and their engagement in some form of petty trading which makes them live longer. However, peer relationships remain the source of healthy living for the elderly male group.

Global Organisations and the Provision of Healthcare Services for the Elderly

The challenges of the elderly have drawn the world's attention, leading to better policies for them. In 1971, the United Nations General Assembly adopted Resolution 2842, which for the first time in history, asked the Secretary-General and Member States to take concrete action on ageing and the position of older adults in society. First World Assembly on Ageing in Vienna (1984) adopted the International Plan of Action to help the ageing population. In 1991, the UN Principles on Older Persons were formulated to ensure elderly autonomy, participation, care, self-fulfilment, and dignity. As demographics changed, especially in developed countries, so did guidelines, goals, and action plans. The Second World Assembly on Ageing in April 2002 adopted the Madrid International Plan of Action on Ageing and Political Declaration aimed at building a society for all ages. National and international actions in three priority directions were defined to reach this goal: older persons and development of improved health; well-being in older age; enabling and supportive environment. The WHO (2021) has also championed efforts to address elderly health challenges by creating a Global Strategy and Action Plan for Ageing and Health for 2016–2020 through increased budgetary allocation and development partner involvement, aimed to give everyone a chance to live a long, healthy life.

The United Nations General Assembly declared 2021–2030 the Decade of Healthy Ageing and asked the WHO (2021) to lead the implementation. The Decade of Healthy Ageing is a global collaboration bringing together governments, civil societies, international agencies, professionals, academia, the media and the private sector for ten years of concerted, catalytic and collaborative action to foster longer and healthier lives. The Decade builds on the WHO Global Strategy and Action Plan and the United Nations Madrid International Plan of Action on Ageing by supporting the realisation of the United Nations Agenda 2030 on Sustainable Development

and the Sustainable Development Goals (SDGs). The Decade of Healthy Ageing (2021–2030) seeks to reduce health inequities and improve the lives of older adults, their families and communities through collective action in four areas: changing how people think, feel and act towards age and ageism; developing communities in ways that foster the abilities of older adults; delivering person-centred integrated care and primary health services responsive to older adults; and providing more senior people who need it with access to quality long-term care. This is one of the strategies instituted to ensure that elderly persons are adequately cared for.

Nigeria participated in the 2002 African Union Conferences on an action plan for the ageing population, although the country has no formal social security or policy for the ageing population besides the pension scheme for retirees of government employees (Adebawale *et al.*, 2012; Animasahun and Chapman, 2017). Adebawale *et al.* (2012) asserted that Nigeria is currently overhauling its systems towards a robust policy that would protect the dignity of older persons and promote their inclusion, participation, independence, and security. Slow as it may be, there may be a ray of hope for the ageing Nigerian population. The SDGs 2030 Agenda is also one global tool that seeks to address the problem of social exclusion of the vulnerable, including the elderly. It could prove beneficial to the elderly Nigerian population if stakeholders make concerted efforts that are elderly-friendly. The 2030 agenda thus proposes an all-inclusive and sustainable future that “leaves no one behind” in its industrialisation, production, education, poverty reduction, skill transfer and social cohesion strategies.

Federal Government, Health Policies and the Problem of Healthcare Services

The absence of social security systems is detrimental to catering for the needs of the elderly. The studies by Mudiare (2013) and Oladeji (2011) revealed that adequate provision of social services,

such as income security, healthcare, housing and legal assistance, positively influences the overall health of the elderly, but, national social security is unavailable to provide an economic buffer in older age. Accordingly, in 1989, the Nigerian government developed the National Social Development Policy, which aimed to provide a framework for protecting elderly persons from moral and material neglect and provide public assistance when necessary. Despite adequate provisions, however, there has been no effective execution by any Federal agency (Oladeji, 2011). In addition, although regional levels have demonstrated the presence of policy frameworks for the elderly, policy changes have not been observed in Nigeria (Mudiare, 2013). The failure of the Nigerian Federal institutions to regularly disburse pension funds to retirees and provide adequate social services for the aged pose a significant threat to food security, social security and national security.

Nigeria's already inadequately funded healthcare system has placed little emphasis on the care of older adults because there are "more urgent" health problems, thus, funding for older adults is limited (Olayiwola *et al.*, 2013). The healthcare system in Nigeria spends a small fraction of the budget on treating the elderly, and their access to care is severely limited by the paucity of health facilities, human resources, and out-of-pocket payment arrangements (Animasahun and Chapman, 2017). This also occurs against the backdrop of Nigeria not yet enacting the National Policy on the care and welfare of older persons, which has remained in draft form since March 2003. In Nigeria today, social security policies and insurance schemes for the aged are not adequately formulated and implemented, owing to their failure to cover many older persons or address many of their challenges. Take, for instance, some security systems policies for the elderly cover only the formal sector (public and organised private sector) and are fraught with problems of implementation (Animasahun and Chapman, 2017).

Furthermore, Nigerian Federal institutions fail to regularly disburse pension funds to retirees and provide adequate social services for the aged (Gesinde *et al.*, 2011). In Nigeria, the burden of care squarely rests on family members despite the provisions in the 1999 Constitution, Section 14. 2(b), which states that; "The security and welfare of its people shall be the primary purpose of the government", and in Section 16, sub-section 2(d), which promises; "That suitable and adequate shelter and suitable and adequate food, a reasonable national minimum living wage, old age care and pensions and unemployment, sick benefits and welfare of the disabled are provided for all citizens" (The Federal Republic of Nigeria, 1999). The Nigeria Federal Executive Council ratified the National Policy on Ageing for Older Persons in 2021 to adequately address the challenges, including insecurity, independence, and disabilities, among others, associated with old age (Agency Report, 2019). However, the ratification is yet to address the health challenges faced by the elderly in the country.

Similarly, the Federal Ministry of Health attempted to establish six regional geriatric centres in tertiary hospitals to improve older adults' health. The centres were intended to meet the health and social requirements, as well as the developmental difficulties, of the aged in the country. This project shows that Nigeria's elderly face health challenges that require a strategic approach to promote healthy ageing. The government, the private sector in the Diaspora, a coalition of the elderly, and the formation of the National Senior Citizens Centre were advocated collectively (Agency Report, 2019). Establishing such a centre was seen as an effective strategy to substantially address some of the problems of older persons in Nigeria. Again, the Nigerian President, Muhammad Buhari, had approved the allocation of one per cent of the Consolidated Revenue Fund to deliver healthcare to the vulnerable population, mainly children, women and the elderly (Agency Report, 2019). Accordingly, 50 per cent of the fund would go to the NHIS to procure health services and insurance

for vulnerable groups and 45 per cent to the National Primary Health Care Development Agency for the training of the healthcare workforce and procurement of consumables for day-to-day activities of the primary health care centres, while 5 per cent is for health emergencies at the Federal Ministry of Health.

State Governments, Organisations and the Provision of Healthcare Services for the Elderly

Some State Government services, as well as some religious organisations, non-governmental organisations & community-based organisations, form the bulk of the network of support for the elderly in Nigeria in addition to the informal arrangement through the family system. Gesinde *et al.* (2011) noted that some activities had been implemented in the areas of livelihood support, skills acquisition, capacity building, and medical care for the elderly in States like Ekiti and Lagos. There is no regulatory framework for institutionalised elderly care in Nigeria. However, a few states have introduced social assistance for older persons, including Ekiti and Anambra States (Gesinde *et al.*, 2011). Accordingly, these States run social welfare packages for senior citizens aimed at taking care of older adults of 65 years and above in the case of Ekiti State and 75 years and above in the case of Anambra State. The scheme in Ekiti formally took off in 2011, while that of Anambra took off in 2012. In Nigeria, institutions such as old people's homes for the aged are not very common. There are presently few registered privately owned older adults' homes in Nigeria, showing the limited extent of government participation in caring for older adults.

Obinna (2021) noted that it is no longer news that healthcare in Nigeria is not where it should be, particularly the worsening situation of the elderly. He reported that the University Teaching Hospital, Benin, UBTH, had pioneered ways to provide better care for older adults, discovered better therapies, and educated the next generation of medical professionals, caregivers and community members on the needs of the elderly. The hospital

now operates a Geriatric Unit under its Elder-Friendly Hospitals Initiative (ELDRHI), solely dedicated to caring for elderly Nigerians. Geriatrics or geriatric medicine is a speciality that focuses on the health care of older adults, aimed to promote health by preventing and treating diseases and disabilities in older adults. The unit is strengthened to provide patient-centred, holistic care to older persons in a good ambience that encourages family participation. It manages various categories of patients with geriatric syndromes who otherwise would have required care in other climes. Also provided by the hospital are wheelchair-accessible toilets, handrails and grab bars across the hospital to improve patients' safety.

The Judicial System and the Care for the Elderly

Nigeria's judicial framework has not established a justice mechanism for older adults to seek redress in Nigeria (Age Nigeria Foundation, 2021). Accordingly, some network friends, NGOs and Civil Society Organizations have been at the forefront of fighting against elder abuse and other forms of discrimination and violence against older Nigerians. It has been observed that lawmakers have not been sensitive to the scope, nature and seriousness of older persons' plight in Nigeria; neither are they susceptible to the broad economic and social development implications of leaving these problems unaddressed in the context of rapid population ageing (Olayiwola *et al.*, 2013).

Elder abuse, violence and mistreatment are now on the high side in Nigeria compared to other developed countries, fuelled by a lack of specific laws to protect the elderly (Mudiare, 2013). Accordingly, most elderly persons claimed that negative attitude towards their age was a problem in accessing justice, and this has contributed to the discrimination and abuse they face daily. The older adults believe that due to their old age, they have less chance to get justice as their complaints are usually not taken seriously. Even in courts, they are treated disrespectfully by court officials or

harassed by police. Some older adults believe that court proceedings were designed to exhaust them, or they would die before the matter would be resolved. The financial burden is a significant barrier for older adults trying to access justice in Nigeria, particularly for those who do not earn regular income. Some do not have money to pay lawyers, while some think they cannot pay corrupt officials (Age Nigeria Foundation, 2021).

The specific barriers older adults face regarding access to justice are not adequately covered under International Human Rights law. Older adults are easily discriminated against and are prone to mistreatment, violence and neglect. Most older Nigerians who are victims of elder abuse and mistreatment have judicial problems and are not protected by the legal system, making them more vulnerable to abuse and loss of their possessions, land, properties and houses (Mudiare, 2013). The problem in getting justice is problematic for the elderly in Nigeria, influencing the older adults to clamour for a solution to their justice challenges. Cases like theft and debt, family dispute, divorce, taking another wife and inheritance, unfair dismissal, insurance claims, and scams are challenges older adults find hard to resolve through the judicial process in Nigeria. It is thus seen alternative dispute resolution in Nigeria, like Citizen Mediation Centres, is not well disposed toward granting access to older adults in our society.

Role of NGOs in the Provision of Healthcare Services

Okah (2021) reported that several non-governmental organisations had taken the challenge of the elderly as their priority. One such NGO is the National Senior Citizens Centre (NSCC) in Nigeria, which planned to engage 14.9 million older adults (statistics from the National Bureau of Statistics in 2019 in Nigeria) to be economically productive in their communities. The objectives of the NSCC were to ensure the provision of programmes and services and accessibility and provide health, social

programmes, entrepreneurship, work schemes, and educational as well as living opportunities to older adults. The organisation leveraged existing structures like the Legal Aid Council of Nigeria, Primary Healthcare facilities, the National Orientation Agency, the National Social Safety Net Office, Ministries of Humanitarian Affairs, Health, Agriculture and Rural Development and many others to engage the elderly citizens. The mission of the organisation was to give the elderly opportunities to continue to contribute their wealth of experience to develop their communities. The traditional belief is that people are no longer helpful when they retire. However, the truth is that these retirees possess all their institutional memories, expertise and goodwill acquired over the years, which can be helpful for community development.

Theoretical Framework: Political Economy Theory

The Political Economy Theory is a social science theory concerned with production, trade, and their relationship with the law and the government. It is interested in how economic theories affect different socio-economic systems, such as socialism and communism, and public policy creation and implementation. Historically, the theory can be traced to scholars like Adam Smith, Karl Marx, David Ricardo, John Stuart Mill, David Hume, and Francois Quesnay, among others. Importantly, the theory studies the interaction between politics and economics. Politics deals with power, authority, public life, governance, the state and conflict resolution. Politics has been defined as all those activities and institutions related to making authoritative societal decisions. Economics has been described as a way of thinking about the provision of material goods, institutions of private property and contracts, or the institutional reality of a market economy. In its basic form, economics deals with how resources and benefits are generated and distributed in society. Therefore, economists seek to understand the self-organising forces of the market economy,

how well they function and how governments may intervene to improve their workings in specific situations.

Economics is popularly known as the science that studies human behaviour as a relationship between ends and scarce means with alternative uses. Therefore, if economics is the study of the optimal use of scarce resources, the political economy begins with the political nature of decision-making and is concerned with how politics will affect economic choices in society. The political economy goes beyond simple economics to include social and institutional processes through which economic and political elites allocate resources for their benefit and then to the broader population. It deals with ways in which politics determines or influences economic activities; how financial circumstances and institutions determine or affect political institutions and processes. It is premised on the idea that politics and the economy cannot be separated. In turn, politics is profoundly shaped by economic relations and economic power and vice versa. Those researching political economy, therefore, investigate the association of politics with the economy, understanding that the economy is already political in its origins and consequences.

Political economics is split into Classical Political Economy and Modern Political Economy. Classical Political Economy is concerned with the works of philosophers such as Niccolo Machiavelli, Adam Smith, and Karl Marx. At the same time, Modern Political Economy is traced to the results of modern philosophers, economists, and political scientists such as John Maynard Keynes, Milton Friedman and Friedrich Hayek. Game Theory influenced Political Economy Theory, as it involves different groups competing for finite resources and power that assesses which policies will provide the most beneficial results. It also relates to the capability of the economy to achieve the desired results. Political Economy theorists are interested in the gains and losses incurred by implementing a certain policy. It gives them an idea of which groups support the policy

and which do not. They also examine how individuals increase their utility by participating in political activity. Capital and labour are used to influence political processes and generate policy outcomes with the most benefit.

For this study, the political economy theory is concerned with how political and economic domains interact and shape individual and population health outcomes, particularly the health of elderly persons. Widdig *et al.* (2022) claimed that elderly persons from an economy increasingly characterised by low-wage, precarious employment, ever-expanding inequality, and a political process that corporations and the wealthy unduly influence will face adverse health consequences. These drives will manifest various health challenges, including hypertension, cataract, arthritis, depression, and dementia. These health challenges can be prevented or swiftly addressed in a country where priority is given to the ageing population's health. Government at all levels can, therefore, make decisions about how best to allocate scarce resources to improve the ageing population's health. In return, healthcare services can be accessible and affordable to elderly persons. Widdig *et al.* (2022) claimed that healthcare services are often unavailable, inaccessible and unaffordable to the majority in developing countries. Accordingly, the health challenges of the elderly are worse in developing countries like Nigeria than in developed nations due to fragility, conflicts, scarcity of financial resources, rudimentary or damaged health infrastructure and limited government stewardship. These, of course, can determine or affect the health-seeking behaviours of the elderly and as well for the basis of chosen coping strategies to avert the wrath of health problems associated with old age.

Conclusion and Recommendations

It can be concluded that some of the differences in the health of older adults are due to genetics; the majority are the result of people's physical and social environments, such as their homes, neighbourhoods, and communities, as well as their

characteristics, such as their sex, ethnicity, or socio-economic status. The settings that people live in as children or even as developing foetuses, combined with their characteristics, have long-term effects on how they age. Physical and social environments can affect health directly or through barriers or incentives that affect opportunities, decisions and health behaviour. This paper also noted that the available healthcare services for the elderly are insufficient to cater to their needs. Notably, the families remain the primary caregivers even though some are no longer playing their roles as traditionally expected due to several factors, including industrialisation, urbanisation, unemployment, poverty and poor policies.

Additionally, older adults are sometimes starved when their caregivers are absent due to a lack of provision or problems encountered in day-to-day interactions. The public services are also not drafted to cater for the needs of the elderly, and when drafted, they rarely take care of the challenges faced by the elderly in society. Nigeria's policy leaves older adults in the hands of informal caregivers who may not have adequate medical and social requisites to take good care of them. Maintaining healthy behaviours throughout life, mainly eating a balanced diet, engaging in regular physical activity, improving physical and mental capacity, delaying care dependency and refraining from tobacco use, all contribute to reducing the risk of non-communicable diseases. The study suggests that the health of the elderly is in part determined by their birth, upbringing, and lifestyle. The findings suggest that addressing social challenges faced by young people will contribute significantly to achieving good health in old age. Also, older adults with physical limitations and disabilities are most susceptible to unmet healthcare needs and support systems from the government, policymakers and family. Therefore, stakeholders should prioritise the health of the elderly for optimal societal development.

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Effect of Tax Morale on Personal Income Tax Compliance in Edo State

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Abstract

This study was set to investigate the effect of tax morale on personal income tax compliance in Edo State. It became imperative to carry out this study following the series of quests to observe the influence of tax morale on personal income tax compliance in Edo State, Nigeria. A survey research design was adopted in carrying out the research. The primary source of data was collected through a questionnaire and used for the study. Tables and percentages were used to analyse the data, while Pearson Chi-Squares estimation technique was adopted to test the hypothesis. Findings obtained showed that infrastructural development has a negative but insignificant influence on personal income tax compliance, while transparency and accountability and taxpayers' awareness have a positive and significant relationship with personal income tax compliance. The study thus concludes that only transparency and accountability tend to ensure compliance with personal income tax. At the same time, infrastructural development is not good predictor of personal income tax compliance in Edo State, Nigeria. This study thus recommends that government should be more accountable to its citizens to lure them to be tax compliant so that the government can generate enough revenue to perform its fundamental obligations/services equitably to the citizens.

Keywords: Tax morale, tax compliance, infrastructural development, transparency and accountability and taxpayers' awareness.

Introduction

Taxation is a vital instrument used by the government in both advanced and developing countries for the achievement of its fiscal policy strategy (Mayowan, 2019). The government needs financial resources to act and discharge its constitutional responsibilities to the public. Tax revenue is one major income source (Chodorow, 2008) that tends to boost the government's income level for the provision of fundamental human needs. With these tax collections, government tends to discharge its constitutional responsibilities to the public, such as quality education, roads, potable water, adequate security, and to meet societal expectations and well-being. One of the constitutional responsibilities of the government to its citizens is the stabilisation of the economy by ensuring adequate income redistribution, which is

the hallmark of taxation which can only be guaranteed when there is adequate compliance to tax laws and administration by tax payers on the whole.

A major challenge for decision-makers in a growing economy is ensuring that the majority of taxpayers pay their taxes due to a low level of awareness (Akan and Odita, 2013). Compliance with tax payment is not only adhered to as a result of the possibility of detection, tax rates, and enforcement but also on the taxpayer's part not to resist payment of taxes. Consistent with this, people act with integrity and in an honest manner, present accurate information and enhance the extent of their willingness to pay tax as a result of the intrinsic motivation for tax payment known as tax morale (Alm and Togler, 2006). Tax morale measures the desire of individuals to pay taxes or

the belief that paying taxes gives them the enablement to contribute their quota to society. Thus, tax morale is a hidden motivation to pay taxes, and it is directly associated with obeying tax laws which is a noticeable action (Akan and Odita, 2013; Alm, 2018; Fadi, Martin, and Roberta, 2016). However, low tax morale culminates in low tax compliance levels, which thus impedes development, specifically in the area of economic growth. Tax morality has many determinants, which include but are not limited to: socio-demographics [age, gender, education]; socio-economic [marriage status, employment, economic situation, and religiosity]; trust [toward the government, legal system, judiciary, president, civil servants]; political participation [direct democracy, local autonomy]; tax policy [prevention factors, tax systems, tax administration, perception of taxpayers]; and culture [culture of society] (Jackson and Milliron, 1986).

The study of personal tax compliance demands that factors (such as infrastructural development, transparency and accountability which enhance tax compliance position and actions of the tax payers are of significant interest that must be studied. Efforts to expand the tax base depend on the way taxpayers see the tax administration and enforcement and whether there is transparency and accountability in the process.

The main objective of the study is to find out the effect of tax morale on complying with the payment of personal income tax in Edo State, Nigeria. The study will focus on how government infrastructural development and transparency in governance affect the morale of taxpayers leading to tax compliance by individuals. The hypothesis of the study are also drawn from the objectives.

Literature Review

Conceptual Review

Tax

Tax is one major avenue through which government at all levels generate revenue (Mayowan, 2019). The tax system enables the government to generate tax revenue required to discharge its fundamental responsibilities, which, in no doubt, ensures economic growth and development (Alabede, Arifini, and Idris, 2011; Ali, Fjeldstad, and Sjursen, 2014; Fadi *et al.*, 2016). According to Anyaduba (2000), tax is a compulsory levy on the income generated by individuals and corporate organisations by agencies of the government for the purpose of generating revenue. Appah and Oyandonghan (2011) see tax as a levy imposed on an individual or on his property by the government to enable them to meet the basic need of society.

Personal Income Tax Compliance

James and Alley (2002) defined tax compliance as the willingness of the taxpayer to pay his or her tax without any form of enforcement. It also means declaring all your income in accordance with tax laws or regulations and obeying court judgement in that regard. It is the act of filling your returns as and when due, openly declaring your income and paying all the necessary taxes as raised by the tax authority. Tax compliance is the willingness of taxpayers to obey tax laws and balance the economic equilibrium of the country. According to (Noor, Jeyapalan, and Uchenna, 2014), tax compliance is transparently reporting all your income and expenses and making necessary claims in accordance with tax laws.

To this end, the studies of (Anyaduba, Eragbhe, and Kennedy, 2012; Devos, 2012) on tax compliance documented many factors, such as deterrent, socio-psychological, fiscal exchange and comparative treatment, determine individual compliance resolution of tax payment or not. More so, individual compliance behaviour is arguably different among countries as well as individuals. Tax compliance is, to a large extent, influenced by fourteen variables which include: age, sex, literacy, and income level, income sources, residence, peer

influence, ethics, honesty, complexity, and contact of tax agencies, penalty, measurable possibility, and tax level. In relation to tax compliance measurement, a prior study in India provided a tax compliance index as an aggregate index where tax compliance is a measure of actual income tax generated compared to the amount of taxes that government suppose to collect.

Tax Morale

Organisation for Economic Co-operation and Development (OECD) defines tax morale as the 'intrinsic willingness to pay tax'. It further defines this intrinsic motivation in its consultation document what is driving tax morale? as 'our understanding of what motivates taxpayers to participate in, and comply with, the tax system'. It regards this as 'a vital aspect of the tax system, as most tax systems rely on the voluntary compliance of taxpayers for the bulk of their revenues'. Tax morale is about far more than an individual's moral beliefs; it also includes their actions, which may well not reflect those professed beliefs

According to Akan and Odita (2013), tax morale as a concept is credited to Schmolders (1960), who sees it as the mind-set of a group or groups of taxpayers about the achievement or abandonment of their tax obligations based on their tax awareness is the hallmark of the sovereignty of the state. The issue of morale in tax began to elicit interest among researchers in the 1990s and concerted efforts have been geared towards examining the fundamental question of tax compliance despite the low level of fines, penalties as well as possibility of being audited as studies have revealed based on the need assessment, early theories suggest lesser tax compliance. Based on previous research work, new studies have been carried out to find new issues that affect tax morale.

The first research on tax morale was carried out by German scholars who confirmed that the early motive of tax morale is the reason why people do not cheat. In developing nations such as Nigeria, the level of exposure to non-compliance and punishment is so low, and despite this, taxpayers

are still rational and sensitive to compliance with tax payments. Thus, morale in tax is defined as the enthusiasm of paying taxes, and it is closely related to compliance with tax laws. Many taxpayers want to see the reason for paying taxes translated into infrastructural development. Questions like what do government do with all these taxes they are collecting from us? They see infrastructure as the government's judicious use of their tax money.

Infrastructural Development

Infrastructures are essential to improving the economy of any nation and are characterized as social goods (Afubero and Okoye, 2014; Olabisi, Afolabi, Olagunju, and Madariola, 2020). The concept is made up of the Latin prefix *infra* (which means beneath) and *structure*. Infrastructure is defined as making available basic amenities to the corporate world and individual homes in society. There are two types of infrastructures: hard infrastructures (these are huge substantial networks required to ensure a functional and modernized industrial nation) and soft infrastructures (these are institutions necessary to sustain the basic social needs of a country, for example, all the system relating to finance, education, healthcare and government as well as emergency services) (Adesoji and Chike, 2013; Olabisi *et al.*, 2020).

Investment in infrastructural development is fundamental in ensuring a developed economy as it solves probable economic growth. On average, infrastructural resources are capital intensive, involve huge capital outlay, long-term assets, site and use specific, and are competitive in nature (Adesoji and Chike, 2013; Olabisi *et al.*, 2020; Umar *et al.*, 2018). Infrastructural development is also the total amenities and social facilities made available by the government to increase the living standard of the people. Consequently, these infrastructural developments include pipe-borne water, good roads, good educational facilities, good and adequate health care centres, qualified teachers and teaching facilities (Adesoji and Chike, 2013; Anyaduba and Aronmwan, 2015; Olabisi *et al.*, 2020). To this end, the fundamental economic

objective of emerging nations is to enhance the rate of economic growth as well as income per head which tends to ensure high living standard which can only be ensure in a high tax compliance environment.

Infrastructural development has become an issue that affect the tax morale of citizens as they always question what tangible thing they can see that government has done with the taxes they pay.

Transparency and Accountability

Accountability means giving account of ones stewardship of what is entrusted in your care. It has do with maintaining openness in character and conducts in doing government business. It is transparently complying with rules, norms and guidelines in conducting government business. Accountability involves individual or government agencies providing the valuable and correct information about their activities and justifying their action with supportive evidence to avoid sanctions. Accountability provides an answer for actions and provides the mechanism for enforcement of legal and regulatory frameworks.

Accountability provides the basis for tax compliance, but where government fails to give account of taxes collected in the form of the provision of infrastructure and other benefits, it will definitely affect the level of tax compliance. Tax morale is the hidden motivation that compels tax payers to provide correct information that will aid voluntary tax compliance. The extent to which government displays accountability will shape the tax morale of the citizens and in turn affect the level of their compliance in the voluntary payment of taxes. This forms the basis of social contracts between the government and taxpayers (Sitardja and Dwimulyani, 2016).

International Monetary Fund (IMF) and World bank have always promoted accountability among various arms of government that have dealing with them. Omolehinwa and Naiyeju (2015) emphasized that lack of accountability has been a problem among developing nations of the world when it comes to tax compliance and provision of

basic goods. Igbeng, Beredugo, and Adu (2015) stated that despite the fact that tax revenue increased between 2012 and 2014 in Nigeria which ought to lead to increase in development, the country rather deteriorated in infrastructural development and was ranked among the poorest nations of the world.

Tax Penalties for Non-Payment of Tax by Tax Payers

The penalties attached to non-compliance in tax law differ from country to country. Various penalties are attached to varied offences in tax law. A particular penalty depends on the level of evasion committed by the tax payer. For instance, the penalty for late filling of returns differs from non-filling or falsification of accounting records or even refusal to keep proper records. Deliberate evasion of tax attracts stiffer penalties than non-deliberate tax evasion. It is yet to be proved if there is a relationship as regards the effect of the penalty on the tax compliance behaviour of citizens.

Tax compliance reacts more positively to fine than as it does to other measures to enforce compliance. Compliance rises as fine increases but not with audit probabilities. Other researches have reported that tax compliance does not have a relationship with penalties and fines. In some climes, fine can be seen as a de-motivator when it comes to tax compliance as it is perceived to be harmful to the community.

Empirical Review

Siahaan (2013) examined the effect of tax openness and trust on tax payers' willingness to comply with tax laws in Indonesia using the path analytic regression techniques, and the result showed a positive but insignificant relationship between tax transparency and voluntary compliance with tax laws. The result also showed that tax openness through having trust in governance had a positive and significant influence on compliance with tax laws

Rasak and Adefula (2013) examined taxpayer's attitudes and how it affected the

decision on tax compliance in Tamale, Ghana, using the Ordinary Least Squares (OLS) technique and discovered that the majority of citizens do not regard transparency and accountability in governance which in turn have a negative effect on individual tax compliance. The study concludes that tax payers do not have trust in governance and, as such, affect their tax compliance.

Fadjar (2013) studied how direct and indirect tax compliance affects voluntary tax compliance in Indonesia using the OLS regression technique. Tax payers in service industries were sampled in the study. The result found that direct tax transparency had an insignificant effect on voluntary tax compliance, while indirect tax transparency was positive and significant on voluntary tax compliance through trust.

Kiow, Salleh, and Kassim (2017) studied the determinants of personal tax compliance by individuals in Peninsular Malaysia. Findings revealed that the majority of the tax payers compliance is their ethical perception and the level of transparency displayed in government activities. The study concluded that individual perception of how the government uses revenue generated from tax for the benefit of its citizens determines to a large extent, the level of their tax compliance. Transparency has to do with how the government is using its tax revenue to provide its citizens with basic needs and amenities that would influence tax payers decisions as regards tax compliance.

Sitardja and Dwimulyani (2016) studied how trust and good governance influenced tax compliance among public companies listed in Indonesian Stock Exchange using a questionnaire employing the structural equation model with partial least squares. The outcome is a positive relationship between fairness, trust, transparency and tax compliance.

Orunmwense and Aiwoho (2021) examined the determinants of tax morale and tax compliance in Nigeria. The study's objectives are trusted in government, culture, age, religion, education, and employment. The study adopted a cross-sectional research survey design as a method of

investigation. Four (4) public limited companies listed under the Nigeria stock exchange formed the basis upon which the investigation was carried out and the sample size obtained for the study. A questionnaire was used as a research instrument to elicit responses, a total of three hundred and eighty-two (382) questionnaire copies were administered, and all three hundred and eighty-two copies were retrieved. Multiple regressions were used to analyse the data. The study revealed that trust in government, employment, religion, and age significantly correlate with tax morale and compliance. In contrast, culture and education have an insignificant relationship with tax morale and tax compliance in Nigeria. The study recommends that understanding a taxpayer's social psychological (demographic) as it relates to tax morale would help address the issue of tax compliance in Nigeria, and this would also help the government formulate better policies in tax-related matters.

Okanlawon, Raji, Bojuwon and Kafayat (2022) examined the impact of tax morale on the economic development of Nigeria using Lagos state as a case study. A cross-sectional survey was used with a questionnaire as the significant tool for data collection. Simple tables and percentages were used to analyse the data, while regression analysis was used to test the hypothesis. The result shows that there is a significant positive correlation between tax morale and economic development. The study recommends that government should embark on programmes that will win trust in governance and positively impacts on tax morale of its citizenry.

Theoretical Framework

Economic Deterrent Theory: This research is based on *economic deterrent theory* because it captures all tax morale determinants and tax compliance. This theory, which is premised on the economic theory of obeying the law, commonly focuses on deterrence. Deterrence can be attained through the punitive approach and the persuasive approach. The economist views tax compliance as the rational behaviour of taxpayers who sees

themselves as having a moral judgment that does not take risk and who enjoys tax evasion if the benefit of evading tax outweighs the costs (Mayowan, 2019). This theory was first revealed in the 60s from the study of Becker, who investigated illicit action employing an economic blueprint. Becker put forward a slight view which suggested that deterrents such as the possibility of discovery, penalties and fines are factors that are under the influence of society. In line with Becker's argument, this theory presupposes that behaviour is subjective to factors like tax rate (which determines the gain from evading tax), punishment for fraud and possibility of exposure (which determines costs).

This theory literarily considers an individual as a rational and reasonable being who weighs the pros and cons of evading taxes and thus ignores payment of tax if the perceived gain of non-payment exceeds the costs (Walsh, 2012). The postulation deals with logical and reasonable choice under improbability as to whether nonpayment of tax is beneficial or adversely consequential to the taxpayer (Fjeldstad, Schulze, and Sjursen, 2012). The proposition of this theory is that there tends to be a high level of tax evasion when the punishment for deviants are low, while fewer people tend to evade taxes with high punishment measures (Fjeldstad *et al.*, 2012). Consistent with this, the proponents advocate a stricter assessment and grave punishments for defaulters as a way of decreasing non-payment of taxes. This theory has its limitation because it was based on assumption and was later modified by Allingham and Sandmo in the 1970s by working out a theory that includes the assumption that taxpayers benefit from the knowledge of the punishment given to tax evaders.

Intrinsic Motivation Theory: Intrinsic motivation depends on the application of policy instruments. Frey (1997) claims that tax morale is not expected to be crowded out if honest taxpayers perceive the stricter policy to be directed against dishonest taxpayers. Regulations which prevent free-riding by others and establish fairness and

equity help preserve tax morale. If intrinsic motivation is not recognized, taxpayers get the feeling that they can as well be opportunistic. This considers the relevance of policy instruments in supporting or damaging intrinsic motivation.

Theory of Crime: The deterrence doctrine can be traced back to the classical works of Jeremy, Bentham and Cesare (Murphy, 2008). Their classical utilization theory of crime is that people are rational actors who behave in a manner that will maximize their expected utility. Becker (1968) argued that authorities needed to appropriately balance between detection of non-compliers and sanctions to the point where non-compliance becomes irrational. They began to focus their attention on researching compliance rather than deterrence and realised the importance of persuasion and cooperation as regulatory tools for gaining compliance. In fact, research has shown that the use of threat and legal coercion, particularly when perceived as illegitimate, can produce negative behavior; these actions are more likely to result in further non-compliance (Murphy and Harris, 2007).

Methodology

The research adopted the survey research design which is one of the most important designs utilised in management sciences. The data were primarily sourced, which means that the data were obtained by conducting and administering the questionnaire. Since the population of self-employed individuals in Edo State is very large and cannot easily be determined, Cochran (1977) formula for determining sample size in an infinite population was used determining the sample size:

$$n = \frac{Z^2 PQ}{e^2}$$

Where: n = sample size; Z = the Z-value gotten from the Z-table; $Q = 1 - P$; P = Estimated proportion of the population assumed to be 50% (i.e. 0.50); and e = The margin error limit stated at 5%. Assigning values to these symbols, the sample size is calculated thus:

$$n = \frac{1.96^2 \times 0.5 \times 0.5}{(0.05)^2}$$

$$n = \frac{3.8416 \times 0.5 \times 0.5}{0.0025}$$

$$n = \frac{0.9604}{0.0025}$$

$$n = 384$$

The total sample is given as 384 and the questionnaire was distributed among the three hundred and eighty-four (384) self-employed individuals/respondents in selected Local Governments from Edo State, Nigeria and 300 respondents returned their questionnaire.

The scale rating range from (1), indicating the lowest evaluation of a particular construct to (5), indicating a full assessment of each component of the observed variables (infrastructural development, and transparency and accountability). The questionnaire comprised of seven (4) sections, some of which include: the introductory letter, the biodata, infrastructural

development data, and transparency and accountability data. The questionnaire was strategically designed, and a sample test was carried out on every question to ascertain its validity. The questionnaire was made easy for the respondents to select from the option which, to them, best suits the question asked. Cronbach Alpha technique was used to test the validity and reliability of the questionnaire and the result indicated is 0.84 which is a good result.

Data Presentation and Analysis

Tables 1, 2, 3 and 4 summarize the percentages of responses from individuals to the options available for the questions under each category; strongly agree (SA) and agree (A), strongly disagree (SD), disagree (D) and undecided (U):

Table 1: Infrastructural Development

S/N	Question: Infrastructural Development	SA	A	SD	D	U
1.	Self-employed individual who are resident in areas where there are good roads comply more to tax payments.	63 (21%)	66 (22%)	114 (42%)	21 (7%)	24 (8%)
2.	Self-employed individuals residing in areas of constant electricity have increased tax morale which will impact positively on tax compliance.	36 (12%)	48 (16%)	147 (49%)	39 (13%)	30 (10%)
3.	Entrepreneur in local government with no infrastructural development will completely evade tax.	36 (12%)	39 (13%)	186 (62%)	27 (9%)	9 (3%)
4.	Entrepreneurs who are resident in areas where there are no constant electricity and good road will most likely understate income so as to reduce tax liability due to low tax morale.	30 (10%)	36 (12%)	69 (23%)	126 (47%)	24 (8%)

Source: Researcher's compilation (2022).

From Table 1, on responses relating to the effects of tax morale on infrastructural development in Edo State showed that 42% of the respondents strongly disagreed that areas with more good roads comply more to tax payment in Edo State yearly, 49% strongly disagreed that tax payers that enjoy electricity comply more to payment of taxes, 62% strongly disagreed that

entrepreneur that enjoy not government infrastructure will completely evade tax, and 47% disagreed that individuals that do not enjoy basic infrastructures will not declare their income to reduce tax liability. This implies that infrastructural development does not play significant role in tax compliance in Edo State.

Table 2: Transparency and Accountability

S/N	QUESTION: Transparency and Accountability in Governance	SA	A	SD	D	U
1.	Government disclosure of revenue collected will improve tax payers' compliance behaviour?	117 (39%)	102 (34%)	36 (12%)	12 (4%)	30 (10%)
2.	Trust in tax collection and administration will increase tax compliance behaviour?	63 (21%)	39 (13%)	33 (11%)	138 (46%)	27 (9%)
3.	Transparency of tax administration or tax authority is key to driving compliance.	138 (46%)	63 (21%)	0 (0%)	66 (22%)	33 (11%)
4.	Absence of corruption among tax officials will enhance compliance?	51 (17%)	129 (43%)	27 (9%)	42 (14%)	51 (17%)

Source: Researcher's Compilation (2022).

Data presented in Table 2 showed the responses on the effects of transparency and accountability on tax compliance in Edo State. It was observed that 39% of the respondents strongly agreed that government disclosure of their revenue collection would improve tax compliance, 46% strongly disagreed that the issue of trust in governance would increase tax compliance, 46% strongly agreed that transparency in tax administration will drive tax compliance, and 43% agreed that absence of corruption among tax officials increases tax compliance. This implies

that transparency and accountability affect tax compliance in Edo State.

Test of Hypothesis

Hypotheses designed earlier in the introduction were tested in this section. The decision rule is to accept the null hypothesis (H_0) if the calculated P-value is greater than the critical P-value, which stood at 5% level of significance (0.05), otherwise, we reject. The following tables present the Pearson's chi-square test results analyzing the various research questions outlined for this study.

Table 3: Result of Infrastructural Development and Personal Income Tax Compliance

	Value	d.f.	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.550 ^a	1	.458		
Continuity Correction ^b	.317	1	.573		
Likelihood Ratio	.554	1	.457		
Fisher's Exact Test				.483	.288
Linear-by-Linear Association	.548	1	.459		
N of Valid Cases	383				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 16.08.

b. Computed only for a 2x2 table

The result of Pearson's chi-square test of independence between infrastructural development and personal income tax compliance (PITC) is presented in Table 3. The Pearson Chi-Square

value of 0.550 with a degree of freedom (d.f.) of 1 and probability value 0.458 suggests that there is no significant relationship between infrastructural development and personal income tax compliance.

Table 4: Result of Transparency and Accountability and Personal Income Tax Compliance

	Value	d.f.	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	5.656 ^a	1	.017		
Continuity Correction ^b	3.949	1	.047		
Likelihood Ratio	4.288	1	.038		
Fisher's Exact Test				.034	.034
Linear-by-Linear Association	5.641	1	.018		
N of Valid Cases	383				

a. 1 cells (25.0%) have an expected count less than 5. The minimum expected count is 1.96.

b. Computed only for a 2x2 table

The result of the Pearson's chi-square test of independence between transparency and accountability and personal income tax compliance (PITC) is presented in Table 4. The Pearson chi-square value of 5.656 with a degree of freedom (d.f.) of 1 and related probability value of 0.017 shows that there a significant relationship between transparency and accountability and Personal Income Tax Compliance.

Hypothesis One

i. There is no significant relationship between infrastructural development and personal income tax compliance.

ii. **Test Statistic and Decision:** The Pearson Chi-Square value of 0.550 with a probability value 0.458 is greater than 5% level of significance. The study concludes that ID has no significant relationship with PITC. Thus the null hypothesis of no significant relationship between infrastructural development and personal income tax compliance was accepted.

Hypothesis Two

i. There is no significant relationship between transparency and accountability and personal income tax compliance.

ii. **Test Statistic and Decision:** The Pearson chi-square value of 5.656 with and the related probability value of 0.017 was less than 5% level of significance. The study, therefore, concludes that transparency and accountability has a significant relationship with PITC. Thus, the null

hypothesis of no significant relationship between transparency and accountability and personal income tax compliance was rejected.

Discussion of Findings

Infrastructural development (ID) reveals an insignificant relationship with personal income tax compliance (PITC), which is inconsistent with the economic deterrent theory. This indicates that irrespective of increases in infrastructural development, and self-employed individuals are still not motivated to comply with prompt tax payment in the long-run. Following from the research finding, infrastructural development has a Pearson Chi-Square coefficient of 0.550 with an associated probability value of 0.458 greater than 5% level of significance. The result suggests that ID does not significantly influence PITC. This, of course, is attributable to corruption, unfavourable government actions in the past in terms of mismanagement of public funds, tribalism and nepotism, cronyism, as well as empty promises towards the people, which is prevalent in the Nigerian governance process.

Transparency and accountability (TRA) were found to have a significant relationship with PITC when measured at a 5% level of significance. Following the research finding, TRA has a Pearson Chi-Square coefficient of 5.656 with a probability value of 0.017, less than a 5% level of significance. The result suggests that TRA significantly influences PITC, and this is consistent with the prior expectation. This, of course, suggests that

transparency and accountability on the part of the tax Authority as well as government officials invariably will result in high PITC. That is, transparency and accountability by the government on how government resources were applied in providing basic amenities will enhance personal income tax compliance. This finding aligns with the finding of Kiow, Salleh, and Kassim (2017), Sitardja and Dwimulyani (2016) but inconsistent with the findings of Fadjar (2013), Rasak and Adefula (2013), and Siahaan (2013).

Conclusion

The broad aim of the research is to investigate the impact of tax morale on personal income tax compliance in Edo State. Tax morale is measured by the perception of taxpayers in what the government do with their taxes in the area of infrastructural development and their perception of how government render an account of their stewardship to the populace. Specifically, personal income tax compliance is a topical issue which will continue to attract attention in the Nigerian economy due to the wide income disparity between the have and have not. Also, economic deterrent, socio-psychology, and comparative treatment theories have shown the significance of PITC for the interest of all stakeholders (self-employed tax payers). Following the various reviews, results of analysis, interpretations and hypotheses tested, the outcome of the research showed that transparency and accountability have a positive and significant relationship with Personal Income Tax compliance. In contrast, Infrastructural Development has a negative but insignificant relationship with Personal Income Tax compliance at a 5% critical level. Following the empirical findings, the study can conclude transparency and accountability tend to increase PITC in Edo State, while Infrastructural Development is not a good predictor of Personal Income Tax compliance in Edo State.

Recommendations

Having investigated the impact of tax morale, such as infrastructural development, transparency and accountability on personal income tax compliance (PITC) in Edo State, the study recommends that government always make open how it spends taxpayers' money so that personal income tax compliance and collection, especially among individuals in self-employment in Edo State, will increase. Also, a tax system aimed at higher tax incidence on the rich via their tax base, such as the opulence tax, should be initiated. This is to enable the government to spread income by taking money from the haves (in the form of tax revenue) to provide for the poor in society.

The study finding that infrastructural development does not play a significant role in personal income tax compliance implies that Edo State Government should place less emphasis on using basic infrastructure to influence the tax morale of taxpayers.

This study contributed to knowledge by looking at other factors that can influence the tax morale of individuals, which is a shift from other studies that usually use culture, religion, age and education.

It is also recommended that further study in the tax morale should look at how trust in governance and mode of enforcement of tax laws influence the morale of taxpayers.

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Health Seeking Behaviours of the Aged Population in Nigeria

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Abstract

The health problems, either illnesses or losses, facing the world's ageing population continue to multiply even though they are against the wishes and best interests of the people. Acute illness comes with many problems, and it may be necessary to keep one's emotions, self-image, abilities, and relationships in shape while dealing with the disease. The tendency of older people to seek medical attention is one of the most significant factors that play a role in the severity of the condition. Thus, this paper assessed older people's health-seeking behaviours (HSB) by focusing on the factors that facilitate and delay access to healthcare needs to ameliorate the severity of health challenges for optimal social functioning. The paper employs analytical methods and collates data from various scholarly works on the internet. It was discovered that factors that significantly affect HSB among the aged include the types of health facilities, the distance to the nearest health facility, ignorance of disease, poverty, poor attitudes of health workers, lengthy treatment process, religion, marital status, and lack of support. It was also established that physical, socio-economic, cultural, and even political factors could all play a role in influencing an individual's health behaviour. Similarly, the utilisation of a health care system is contingent on the levels of education, economic factors, cultural beliefs and practice, environment, knowledge about the facilities, gender issues, the political climate, and the health care system itself. This paper concludes that age-related health crises affect older people's HSB, particularly their well-being, social interactions, decision-making, and self-control. Therefore, it is recommended that older people should seek more information about their health and exercise daily to stay energetic, independent, and happy; maintain a healthy lifestyle; and prioritise preventative health behaviours by becoming immunised for health emergencies.

Keywords: Aged population, ageing, health, health-seeking behaviour, old age, older people.

Introduction

Old age is a global issue that governments at all levels are addressing. Increased population ageing is a human success story, a reason to celebrate public health, medical advancements, and economic and social progress over diseases, injuries, and early deaths (United Nations, 2019). In Africa, and especially Nigeria, old age is a blessing since the elderly benefit their communities and form the council of elders, keepers of traditional values, and upholders of history, customs, and cultural values. Old age brings many health concerns, so celebrating the triumph has been difficult. According to Mudiare (2013), the aged endure physical and psychological changes that cause non-communicable diseases and urinary tract infections. Every young person today will grow old and live in rural or metropolitan areas depending on their social chances. Age brings physical, mental, and social changes and needs that are well-known to people. Thinking about ageing is part of being human. Thus, experiences and knowledge gained along the way are transferred to younger family members through preserved knowledge, notes and traditions for future generations (Olayiwola *et al.*, 2013).

Historical views about ageing ranged from ritual deaths to respect, acknowledgement, marginalisation, discrimination, and ageism. Biological changes in an ageing organism were noticeable, and the closeness of death encouraged explorers to find an elixir of youth to lengthen life and reduce senior ailments. Increasing life expectancy exposes the elderly to geriatric ailments that require speedy and positive HSBs. These behaviours are influenced by many factors, including systemic and individual approaches to prevent older people's health challenges. Based on this, individuals at all levels devise different means to remain healthy and sometimes are supported by different organisations to promote positive HSB among them. The Federal Ministry of Health aimed to develop six regional geriatric centres in tertiary hospitals to improve older people's health (Agency Report, 2019). The centres planned to

address the health and social requirements of the elderly in the country, as well as their developmental difficulties. This project indicates that Nigeria's aged population suffers health challenges that require a systematic strategy to promote healthy ageing.

As international agencies focus on disease management and primary health care, nations must provide comprehensive senior care. Existing older adult programs have technical and resource efficiency problems. In underdeveloped countries like Nigeria, governmental and public policies rarely address socio-economic and gender concerns that affect geriatric health. In Nigeria, older people lack essential health, medical care, and social assistance, negatively impacting their health-seeking behaviour (HSB) (Mudiare, 2013). Growing old comes with lots of challenges, although the health-seeking behaviour (HSB) of the aged population is crucial for optimal health. Therefore, poor health seeking can exacerbate ageing suffering and impairment. Older persons have more underlying issues regarding treatment seeking, including illiteracy, family structure, misconceptions, and funding (Lloyd-Sherlock, 2022). As unproductive elders, they may endure financial burdens and social dependency owing to disease and health care. The attitudes of healthcare professionals and older people influence long-term ageing healthcare treatment seeking. Therefore, this paper focuses on the HSBs of older people to determine the challenges faced while growing old and the possibility of as.

Literature Review

It is challenging to develop a universal operational definition of the process of HSB due to the diverse ways in which it has been researched up to this point because of the expansive nature of the health-seeking process. HSBs are actions undertaken to care for, maintain, and uphold one's health, regardless of current health status (Bausell and Bausell, 1987). Poortaghi *et al.* (2015) defined HSB as a multi-dimensional concept which relies on time and context. Tipping (2000)

conceptualised HSB as decision-making for healthcare at the household level, where the decisions made encompass all available options, whether it will be public, private, modern, or traditional. HSB is the behaviour of a person actively searching for different ways to be able to achieve higher-level wellness (Hampshire *et al.*, 2011).

In several other research, the terms “health-seeking” and “help-seeking” are used interchangeably. The tendency of older people to seek medical attention is one of the most significant factors that play a role in the severity of the condition. When a person chooses or does an activity to improve, regain, or preserve their health and ward off sickness, this is referred to as ‘HSB’. This often plays a role in determining whether they go to a public or private institution for medical care. Traditional medicines, self-medication, and home treatments may not appeal to many people (Chauhan, 2015). Understanding, direction, treatment, and general support are all included in HSB, which is any action of actively seeking assistance from healthcare providers or trusted persons in the community. Different people will approach the treatment of their symptoms in different ways based on their own best judgment. These behaviours are known as HSBs and are impacted by the type of care individuals prefer to receive to address their health concerns (Rickwood and Thomas, 2012).

HSBs include modifying eating habits, performing regular exercise, consulting, utilising professional care, and early detection of health crises based on their symptoms (Doshi *et al.*, 2010). HSBs play out in situations where people control their symptoms with the help of both lay and professional resources (Shaw *et al.*, 2018). HSBs are linked to a variety of health disorders because they provide more efficient use of medical treatment before the onset of illness (Bourne, 2009). However, its efficacy could be affected by factors like people’s histories, health literacy levels, and environments. HSB, as the process of illness response, is rooted especially in

psychology; look at HSBs more generally; draw out the factors which enable or prevent people from making “healthy choices” in their lifestyle behaviours or their use of medical care and treatment. HSB is conceptualised as a “sequence of remedial actions” taken to rectify “perceived ill-health” (Ahmed *et al.*, 2000). In the second approach, the latter part of the definition, responding specifically to perceived ill-health, may be dropped as a broader perspective on affirmative, health-promoting behaviours is adopted.

Researchers have shown interest in the factors that encourage individuals to use health services and change their behaviour regarding their health. Many studies have been conducted in various nations, focusing on a particular facet of this ongoing dispute. In the context of this investigation, they may be categorised in a somewhat simplified manner as one of two categories, which closely coincide with a distinction that Tipping and Segall discovered (1995). First, some studies emphasise the ‘end point’, either utilising the formal system or healthcare-seeking behaviour. Secondly, some studies highlight the ‘process,’ which is how the system works (illness response or health-seeking behaviour). Behaviours associated with seeking health care are examined with a special emphasis placed on obtaining “health care” by the official definition that applies in a given setting. Although data are also collected on self-care, visits to more traditional healers, and unofficial medical channels, these are frequently seen as something that should be avoided in large part, and the emphasis is placed on persuading people to choose official medical channels first (Ahmed *et al.*, 2001). Tipping and Segall (1995) show that various socio-economic factors, including gender, age, the social status of women, the type of illness, access to services, and perceived quality of the service, influence the decision to engage with a particular medical channel. Other factors that play a role in this decision include the perceived quality

of the service, access to services, and perceived availability of services.

In keeping with this history, various 'social cognition models' have been constructed to predict likely behaviour patterns. These are determined by a complex interplay of demographic, social, emotional, and cognitive variables, as well as perceived symptoms, accessibility to care, and personality (Conner & Norman, 1996). The fundamental presumption is that behaviour may be most effectively comprehended in terms of an individual's view of the social context in which they find themselves. People are said to engage in HSB when they conduct corrective activities to improve their health when they believe they are unhealthy. HSB is defined in this research as an action carried out by older persons who may have potential health problems to get or gain treatment or assistance about their potential health problems from healthcare experts. As a corollary, HSB refers to deciding among the elderly while experiencing symptoms of illness, whether or not to seek professional medical attention from trained medical specialists.

Theoretical Framework: Social Exchange Theory

Social Exchange Theory (SET) is a psychological and sociological approach developed by social psychologists and sociologists to describe exchange as a process of negotiation between parties. The theory, which originated from Economics, Psychology, and Sociology, posits that human connections are formed by applying an individual's subjective cost-benefit analysis and evaluating available options (Homans, 1961). The works of two key theorists, George C. Homans and Peter M. Blau, inspired SET. According to these scholars, people are portrayed as strategic agents who use the resources at their disposal to maximise benefits/gains. They contend that people make decisions based on rational consideration by weighing the consequences of alternative courses of action in terms of the "profit" they are likely to

generate. This, however, explains why people do the things they do.

The theory's central tenet is that social behaviour and interactions between people are the product of an underlying exchange process. This viewpoint indicates that pursuing rewards and benefits and avoiding costs and punishment forms the interaction between persons. This paper defines SET and then discusses how it might be applied to the natural ageing process. According to Homans' thesis, which is founded on sociological and psychological viewpoints, social interaction may be seen as a kind of reinforcement. Individuals determine and learn from their previous interaction experiences whether their behaviours are rewarding or expensive. They do this by analysing the outcomes of those events. These behavioural consequences, whether favourable or unfavourable, reinforce, extinguish, or change future behaviours to accomplish desired results and reduce expensive effects. People have a tendency, as their relationships with others progress over time, to prioritise social interactions that result in favourable outcomes and to do their best to reduce the impact of those that have unfavourable effects. The principle of reciprocity in socially contractual commerce is the foundation for this approach. According to this criterion, every action or service that has some value to person B and is offered by person A to person B is anticipated to be returned by person B to person A, where the exchange expectation concerns some agreed-upon standard of equivalence (Gouldner, 1960).

According to this theory, individuals make choices by consciously or subconsciously weighing the benefits and drawbacks of a potential relationship or course of action, with the ultimate goal of optimising the amount of pleasure they get. This theory is not intended to measure behaviour or change on a societal level; instead, it focuses on face-to-face interactions between individuals. According to this theory, a person will weigh the cost of a social interaction (a negative outcome) against the reward of that social interaction to determine whether or not to participate in the

exchange (positive outcome). The costs and the benefits might take the form of something tangible, such as money, time or service. They can also be intangible, such as an individual's effort, the approval of their peers, love, pride, shame, respect, opportunity or power. Everyone expects they will get more from a conversation or connection than they provide. When a person feels that they are getting less out of a relationship than they put into it, they will choose to quit the relationship. However, they will maintain a connection if it is profitable enough for them to do so. It depends on whether something is sufficient or insufficient, such as the expectations of a person and their comparisons with other prospective interactions and partnerships. The idea that individuals anticipate fair treatment in exchange is an additional SET component. People expect to get the same return for bearing the same costs, and they feel dissatisfied when this expectation is not met.

The theory has been utilised in a wide variety of social contexts, including but not limited to romantic relationships, friendships, workplace behaviour, organisational management, business decisions, social power, leadership, politics, consumer purchasing decisions, and television viewing decisions, amongst others (Antonucci *et al.*, 2014; Cropanzano *et al.*, 2017; Gouldner, 1960). In this investigation, the theory will be used to explain the determinants of healthcare challenges among the elderly and the provision of healthcare services in Nigeria. Individuals learn from their previous interactions, evaluate their current reciprocal or nonreciprocal exchanges, and make decisions about their future behaviours, all of which contribute to the development and accumulation of these perspectives on social exchange over time. This is one of the fundamental principles underlying these viewpoints.

Dowd (1975) developed an enhanced version of the fundamental SET to take into account the experiences of older adults. Accordingly, as people age, the ratio of rewards to costs associated with social interactions might shift based on social status (for example, being an elder) and personal

resources. He argued that this could happen because people's social status changes as they get older (e.g., money, power, and the ability to work or provide care to others). Dowd emphasised the perceived loss of status and power that he claimed are linked with ageing in his exchange theory of ageing. This loss of status and power is related to ageing (Dowd 1975). He said that since one's resources (such as one's health, income, loss of employment and community responsibilities and others) diminish with age, elderly individuals are more prone to be involved in social transactions that are unequal or unbalanced. These unbalanced connections may lead to a power disadvantage for the older person, in which they are needed to depend or rely on others to satisfy their fundamental requirements. However, they are unable to give back (reciprocate) too much in exchange for the assistance they get.

According to this view, the HSB of older people is directly related to the quality of the relationships they maintain with their significant others, governments and organizations that provide social services. It might be argued that as individuals age, their resources decrease, and it becomes more difficult for them to meet the demands of others around them in kind. The perception is that they are a burden rather than a benefit. These factors make it impossible to perform services on their behalf. As a result of globalisation, industrialisation, and technological advancement, there is a chance that relationships may deteriorate since individuals may believe they do not play a vital part in the world. The government may see investing in them as more of a cost than a benefit to the country. This connection risks their lives and prevents them from accessing necessary social and healthcare services. When such services are made accessible, they are asked to pay for them, which may discourage their HSBs. The nature of the Nigerian economic system is that it is capitalist, which means that individuals and governments alike are driven by the desire to accumulate wealth. Therefore, the HSB of the elderly may remain poor and negative when they

are perceived by the elite or capitalists as burdens or not delivering any significant advantage or advancement. This may be the cause for the delayed development in the sponsoring, passing and implementing measures capable of standardising the health of the aged.

The family that also need to reciprocate the demands of their senior ones are motivated by the drive to generate more money. Hence, they leave their older ones in the care of housemaids or public institutions where abuse is easily perpetrated against this ageing population. Thus, this leaves them with all types of psychological issues, comparing the mistreatment from the household they formed with their resources throughout their young age. Of course, when elderly persons keep being isolated and deprived of chances, social connection, and financial assistance, they begin to encounter psychological issues in the form of depression, and dementia, among other psychological obstacles. These issues may make it easier for natural challenges to one's physical health to emerge, such as falls, shingles, weight loss, loss of sight, hearing trouble, chronic illnesses, and infections, to name a few. The societal changes that have occurred throughout the years have positively and negatively affected the HSB of the ageing population. A robust economy has brought forth unprecedented levels of affluence for a large number of individuals in the current society of Nigeria. Because medical treatment has improved and is now more readily available, older people can survive longer. However, since older people cannot reciprocate the required resources, they are not as crucial to the economic survival of their families and communities as they formerly were. This is a change from the situation that existed in the past.

Even if the theory can explain the phenomena being investigated, this does not mean it is exempted from criticism. The theory has been criticised because it cannot provide an acceptable and appropriate explanation of the biological process of ageing. It is also assumed that every connection or contact is based on cost and

advantages, which is another criticism levelled against it. This suggests that the culture of caring for elderly persons allows it not only for economic reasons but also out of respect for old age and morality. Taking care of older people is seen as a moral and respectful act. The theory is criticised for heavily justifying the explanation of old age challenges within material gains by devaluing nonmaterial assets such as love and friendship. This is one of the major criticisms levelled against the theory. One more powerful argument against the theory is that it does not provide sufficient theoretical precision, which is of limited practical use.

Scholars who use SET can explain many social phenomena that have already occurred, but their ability to make valuable predictions regarding those phenomena is severely limited. Although the theory can explain many social phenomena that have already occurred, the theory is criticised for having overlapping constructs that need to be more clearly distinguished. The theory was found to have an insufficient appreciation of the positive or negative hedonic value of these various constructs; an assumption of bipolarity, which treats negative constructs (such as poor health and health challenges) as the absence of positive constructs (such as support and social services); and, following on from the previous three issues, theoretically inaccurate behavioural prediction (Cropanzano *et al.*, 2017).

The theory has been criticised, yet, this has not diminished its use in explaining the HSB of older people. The theory has theoretically explained its relevance to this research by assuming that the HSBs of the elderly are due to their incapacity to reciprocate the advantages or benefits acquired from members of society. It is generally accepted that the difficulty of a situation increases proportionally to the recipient's inability to return the favours extended to them. In addition, the cost of maintaining relationships with older people is inversely proportional to the amount of engagement and assistance provided and the difficulty of such relationships. Nevertheless, the

theory presupposes that older people can deal with the challenges by not solely relying on welfare services, government interventions, and support from significant others, rather, they must acknowledge their unavoidable condition and try to add value to other social issues. The theory proposes that an individual's life history and experiences, including age, gender, race, culture, and context, among other things, can prepare them for a new old age rather than viewing living longer as a circumstance that will inevitably result in a deficit.

Family is still essential to middle age and older people, and their stake in the family's future is also significant to them. However, people of middle and old age appear to be creating circumstances that will permit them to maintain reciprocal exchanges. These circumstances can be made by developing new short-term, contemporaneous relationships, such as service exchanges, or by developing multiple innovative long-term relationships, such as group or congregate housing. Either way, these people are putting themselves in a position where they can maintain reciprocal exchanges. Strong negative emotions such as anger and frustration are elicited among those who are concerned when this norm is violated because service, in return, is denied or fails to meet an agreed-upon level of equivalence. This results in the sense of being mistreated unjustly. If the social relationship is threatened, or if it continues, strong negative emotions are elicited. The injustice of exchange in significant social role relationships can potentially have negative health impacts owing to the body's response to persistent stress when it occurs regularly. This provides more justification for the determinants of healthcare services and challenges among the elderly in Nigeria.

Methodology

Comprehensive, recently published scholarly works were reviewed by the authors to identify journal articles and books dealing with health, health-seeking behaviour, old age, ageing, and older adults to examine the health-seeking

behaviour among the elderly. Also, research articles, case reports, report updates and other web pages were reviewed to examine the concepts of health-seeking behaviour. This approach was used to determine the health attitudes and perceptions of the elderly in Nigeria towards healthcare services. The database of WHO was accessed to determine the HSB of the aged population in Nigeria to arrive at a logical conclusion. Google advanced search was used to search the internet using several combinations of words and phrases such as gender, health, medical information and knowledge and Nigeria. The data extracted were thematically analysed and presented in narrative forms. The data were discussed in this review and recommendations were made based on identified gaps in efforts toward achieving optimal HSB and quality healthcare among the elderly in Nigeria. This research did not involve human participants and the analyses were undertaken with publicly available secondary data; hence no ethics approval was required.

Discussion/Results

It has been discovered that factors that significantly affect HSB among the elderly include the types of health facilities, the distance to the nearest health facility, ignorance of disease due to old age, poverty, poor attitudes of health workers, lengthy treatment process, trust on god for healing if ill, living alone, and lack of someone to take them to hospitals (Adewoye *et al.*, 2021; Moe *et al.*, 2012; Ohta, 2021; Vagenas *et al.*, 2019). Physical, socio-economic, cultural, and even political factors can all play a role in influencing an individual's health behaviour (Vagenas *et al.*, 2019). Accordingly, the utilisation of a health care system may be contingent on the levels of education, economic factors, cultural beliefs and practices. Other factors include the environment, socio-demographic characteristics, knowledge about the facilities, gender issues, the political climate, and the healthcare system itself (Adewoye *et al.*, 2021; Ohta, 2021). Accordingly, environmental

conditions, socio-demographic factors, and knowledge about the facilities.

According to Moe *et al.* (2012), HSB is impacted by a handful of characteristics, including illiteracy, misconceptions, money, family composition, social isolation, and reliance. These factors may amplify the level of misery and incapacity experienced by older people. Adewoye *et al.* (2021), using a descriptive cross-sectional study to conduct research amongst 420 elderly respondents in Ido-Ekiti, with the assistance of an interviewer-administered semi-structured questionnaire, found that respondents' health-seeking behavioural practices were significantly associated with employment status, educational level, cost of health care, access to the health facility, length of time before consultation, beliefs, and lack of support from relations. The findings established that 63.3% of the respondents experienced an episode of illness within the most recent year before the study. However, only 35.3% of the respondents sought treatment from a physician (considered positive HSB). In comparison, 57.9% admitted to using self-medication, consulting a spiritualist, or using herbal medicine (poor health-seeking behaviour). The study concluded that most older people had poor HSB due to educational and economic factors. Specifically, the following subheadings are identified as vital correlates determining HSB among older people.

Society, Location and Environment

Because of advances in medical technology and general socio-economic circumstances, people are living longer than ever before. This has resulted in a more significant percentage of older people in the overall population of every nation globally. All of these things are dependent on the health-seeking behaviours of individuals, especially the behaviours of older people. Therefore, older persons need to engage in HSB to maintain

maximum health. Increasingly elderly societies need older individuals to manage many ailments by using various services (Ohta *et al.*, 2021). The HSBs of such societies will be different from one another depending on the healthcare resources that are readily accessible. People living in metropolitan regions, which have access to sufficient medical resources, have their pick of several different medical and healthcare providers. This circumstance may also be connected to the incorrect use of medical treatment.

Rural communities often do not have access to sufficient resources for medical treatment. When they encounter symptoms, they are required to assess the severity of those symptoms and select from among the significantly restricted medical resources and access to medical treatment. However, since there are not enough resources available, elderly persons may lack an understanding of medical care concerns (Goins *et al.*, 2015). In rural districts of a developing country, acute malaria, hypertensive crises syndrome, and acute hypertensive heart failure were the three conditions responsible for the greatest number of geriatric emergencies, according to the findings of a cross-sectional study (Vagenas *et al.*, 2019). A qualitative study by Ohta (2021) revealed that elderly individuals who lived in rural regions considered that being assisted in later life was a reward for having led a decent life. In addition, this group believed that official assistants could satisfy their requirements in a timelier and satisfactory manner if they were aware of and adhered to the guidelines for obtaining assistance among older people.

Education, Medical Information and Knowledge

Moe *et al.* (2012) used a cross-sectional survey to study the health status and HSB of 729 older people in Myanmar. They found that approximately half of the elderly population in Myanmar had primary or lower education; only one-third were working but with low income; and one-third of the male and female elderly perceived

that they were in good health. The findings revealed that upper and lower Myanmar people had different behaviours when seeking medical attention. Accordingly, it was discovered that the elderly's behaviour towards obtaining medical attention was not connected with gender, race, or religion but rather with money and education level. There was a significant correlation between having a higher level of education and seeking professional treatment for depressive symptoms (Jett, 2012). Accordingly, a lower educational degree was connected with an increased risk of untreated morbidity caused by chronic illnesses. In terms of educational interventions, there was an increase in the use of professional treatment among those with mental problems who attended educational workshops (Jett, 2012).

People of advanced age may seek professional treatment for relatively minor symptoms without giving due thought to the extent to which they need medical attention. Consequently, people's knowledge and abilities about managing their minor symptoms may not be nurtured by the incorrect use of medical treatment, which may be the case. In addition, a lack of information and ability to deal with symptoms might cause a delay in accessing medical treatment in instances of severe sickness. In addition, a lack of information resources and inadequate access to medical care expertise and locations might be barriers to HSBs, particularly among older individuals living in rural areas. Even though the internet and social media have made it simpler to get new information, a more significant proportion of people in their 20s and 30s than those in their 40s and 50s utilise these platforms (Molokhia and Majeed, 2017). Older people are more likely to get their news from television and newspapers, and fewer than half of them use the internet. If there is insufficient information, people might not seek professional care when they need it as much as they should, particularly for acute symptoms. The progression of symptoms may cause various diseases, leading to clinical issues such as multi-morbidity and polypharmacy (Molokhia and Majeed, 2017). As a

result, insufficient information and healthcare services for older people living in rural areas may also affect their HSBs.

Finance, Income and Cost of Healthcare Services

People think of old age and poor health as two sides of the same coin. Due to the high cost, people avoid getting medical care from a doctor with a formal qualification. It is a significant factor in determining whether or not to seek treatment, the desired treatment, and whether healthcare providers are flexible in how they receive payment. Some of the factors associated with a delay in seeking medical attention include the attributing of poor health to getting older, having a low economic status, and health workers having a negative attitude toward the care of elderly patients. Abdulraheem (2017) reported that over two-thirds of respondents sampled (68.8%) had never been to health facilities to receive medical check-ups. As a result, most of the people who participated in the survey cited the high cost of orthodox healthcare services, cultural beliefs, a lack of availability, and a significant distance between themselves and nearby health facilities as the reasons they did not use proper healthcare facilities.

Several studies (Adewoye *et al.*, 2021; Bhat and Kumar, 2017; Moe *et al.*, 2012) have shown a correlation between certain socio-demographic and socio-economic factors and HBS and practices. In a study that was carried out in Ilorin, Nigeria, Abdulraheem (2017) discovered that most older persons who were unwell resorted to self-medication. According to the findings of another study by Okojie and Lane (2020), which was carried out in a rural community in Nigeria and focused on the elderly population, most older people sought healthcare services from patent medicine stores, which is indicative of a lack of proactive or poor HSB. This is likely because of the high cost of seeking orthodox healthcare and unsatisfactory experiences with the quality of treatment received from conventional medical facilities. Their dissatisfaction was due to several

factors, including the length of time it takes to get a consultation, the attitude of the staff members, the lack of availability of doctors, the uncleanliness of the hospital environment, the inefficiency of the hospital services, and the cost of the hospital bills (Abdulraheem, 2017; Adewoye *et al.*, 2021; Okojie and Lane, 2020).

In a study conducted by Rummi *et al.* (2022) on the socio-demographic status, identification of the health-related determinants and health problems, and treatment-seeking behaviour among rural elderly, it was discovered that most respondents (93.91%) drank water from tube wells, 81.49% used sanitary latrines, and 42.68% were addicted to chewing betel leaf. The research adopted a cross-sectional descriptive method to collect data from 427 people aged 60 years at Baliyati, Mohishashi, and Dhalkunda villages in Satoria, Upazilla of Manikganj District. The majority of study participants suffered from chronic disorders such as joint pain (57.38%), vision disturbance (57.14%), general weakness (37.94%), sleeplessness (16.16%), and hypertension (14.50%), as determined by a technique of purposive sampling. Most respondents (78.68%) took action to address their health concerns; however, approximately 41.75% did not take any action when sick due to the prohibitively expensive cost of treatment. Most respondents who sought medical attention (55.6%) indicated a preference to check into a health facility run by the government. The findings revealed that the primary challenges faced by older people in Bangladesh were increased medical costs and a lack of knowledge regarding the availability of medical facilities in nearby medical centres. The study also found that most diseases could be avoided if awareness was raised through the use of mass media.

Age and Gender

In a different study that was carried out by Bhat and Kumar (2017), using a community-based cross-sectional study that was carried out in the field practice area of Father Muller Medical

College, it was found that the majority of the participants (67.3%), who were in the age group of 60-70 years, were illiterate, and that approximately 65.3% of them were suffering from chronic illness, primarily hypertension. The research, which consisted of a purposive sample of 150 older people and data collection through a pretested questionnaire, concluded that most participants with chronic diseases went to a health facility consistently to keep track of their condition. The only demographic characteristic to be substantially connected with HSB for chronic disease in the research was the participant's age. This was determined using statistical tests such as chi-square and regression analysis.

There are several different ways in which gender influences HSBs. There was a correlation between being female and having a lower likelihood of seeking professional assistance for symptoms of depression (Jett, 2012). In addition, the possibility of female patients seeking treatment for different forms of mental illness was lower than that of male patients (Srivastava *et al.*, 2021). There was a correlation between having a lower educational level, a lower monthly income, and the existence of one or more significant medical issues and receiving less professional treatment for the symptoms of depression (Jett, 2012). When confronted with diverse diseases, people and communities behave noticeably differently concerning their pursuit of medical care. For example, Adhikari and Rijal (2020) highlight contrasting pathways to care for women when faced with abnormal vaginal discharge, as opposed to malaria. For the former, the woman is bound far more by rituals and obligations, such as shaving before an examination and being accompanied to a medical consultation by her husband.

Personal Attitudes, Beliefs and Marital Status

The personal notion that one does not need medical care was the most common obstacle mentioned when it came to therapy for depression. Mistrust of mental health practitioners, the belief that treatment would not be beneficial, the fear of

stigma, and an unwillingness to discuss intimate things with a stranger were all often cited as obstacles to receiving mental health care (Adhikari and Rijal, 2020). A favourable influence on HSBs was found to be familiarity with medical treatment and support from families. There was a correlation between knowledge of medicine and the practice of self-treatment (Zhang *et al.*, 2019). Accordingly, the likelihood of having untreated morbidities was significantly lower in those who lived with a spouse than in those who lived alone. Ohta (2021) highlighted that conditions such as diabetes frequently require changes in lifestyle and approach to health behaviours. The ease with which such changes occur depends on the person's perception of their self-efficacy and expectations about their actions' outcomes. It is abundantly clear that this has a connection to HSB.

A paper on native and immigrant diabetes sufferers in Sweden reiterated the importance of self-efficacy in health-related behaviours and compliance and the cultural relativity of beliefs about health and illness (Ohta, 2021). Specifically, the paper focuses on the differences between native and immigrant diabetes sufferers. Despite this, Vagenas *et al.* (2019) claim that during consultations with diabetic patients, medical professionals typically fail to address the social or psychological issues associated with diabetes. Adewoye *et al.* (2021) bring up another interesting point in their study, which is that diabetic patients who have lower levels of trust in the medical professionals who treat them may be more likely to engage in hazardous behaviours to their health. This dynamic between the physician and the patient is thus brought up once more as an essential issue.

Type of Healthcare Facilities and Socioeconomic Correlates

According to a study on the HSBs of 411 older people carried out by Zabeen (2016), 45.7% sought treatment from a private hospital, 32.3% sought treatment from non-registered practitioners, and 18.9% sought treatment from a government

hospital. The remaining 3.1% utilised home remedies or sought the assistance of traditional healers. The accessibility, low cost, and relative affordability of treatment were the primary influences behind their decisions. Educational intervention, gender, educational level, socio-economic status, past medical histories, personal brief, mistrust of mental health providers, stigma, health status, alcohol consumption, utilisation of family practice, and living with families were significantly associated with HSBs among older people living in rural areas, according to several studies (Baral and Sapkota, 2018; Jett, 2012; Srivastava *et al.*, 2021).

Baral and Sapkota (2018) discovered that most participants (86.5%), using a cross-sectional analytical study to survey 104 elderly aged 60 years and above, accessed via a non-probability convenience sampling technique, were suffering from a chronic health problem. Of the participants, 37.8% suffered from hypertension, and 11.1% suffered from diabetic mellitus. The study, which gathered data by conducting interviews with older people at their homes and analysing them using descriptive and inferential statistics in SPSS software, found that all of the participants (100%) were seeking help for their health problems; however, 83.7% of the participants sought help from modern medication, and 16.3% sought help from alternative medicines. It was found that the health problem, ethnicity, and religion were each found to have a statistically significant relationship with the HSB. The research also reported that most participants were aware of requesting assistance from the health care centre. However, they still believed in alternative medicine rather than contemporary medication, which may be a disturbing reality in healthcare.

A low socio-economic position was another factor that hindered the effectiveness of HSB. It was noticed that having a poor socio-economic status was a barrier to receiving treatment for mental problems (Adhikari and Rijal, 2020). Consequently, families with low incomes were related to a low treatment-seeking rate for chronic

disorders. Because of their health issues, patients also used less self-care. Self-treatment for symptoms was connected with being in good health and not having consumed any alcohol recently (Zhang *et al.*, 2019). The likelihood of older persons with lower socio-economic levels seeking treatment for mental problems decreased compared to those with higher socio-economic status (Srivastava, 2021). There is a correlation between HSB and quality of life (QOL). People with a higher quality of life were less likely to use inpatient services (Brenes *et al.*, 2015). High quality of life was associated with familiarity with healthcare (Pham *et al.*, 2018). In addition, HSB, associated with a pattern of self-management for minor symptoms, was associated with a good quality of life (Ohta *et al.*, 2021).

Studies of HSB in connection to tuberculosis have frequently shown that older patients do not always pick a public health care institution, delay diagnosis, and often do not finish the extensive course of treatment required. According to research by Steen and Mazonde (1999), almost all patients in Botswana make their first appointment in a “modern” healthcare facility. Despite this, 47% of patients went on to seek treatment from a traditional or faith healer after beginning conventional treatment. They stress the significance of social and cultural factors as essential contributors to the outcome of tuberculosis control efforts. These patients have the misconception that tuberculosis is a “European disease” that can be effectively treated with Western medicine. Despite this, a traditional healer is consulted to gain insight into the ‘meaning’ of the illness for the individual in question. In a similar vein, it was determined by Pronyk *et al.* (2001) that patients in South Africa suffering from tuberculosis were more likely to seek treatment at government facilities than they were for patients suffering from other conditions. 72% went to a hospital or clinic first for treatment, while only 15% went to a spiritual or traditional healer, and 13% went to a private doctor. Despite this, the authors acknowledged a significant failure by

official clinical services to diagnose individuals who exhibited symptoms. This contributed even further to the already substantial issue of delayed presentation, which is especially prevalent among women.

Conclusion and Recommendations

Longer life gives chances and allows for further education, a new career, or a long-neglected passion for older people, their families, and communities. However, old age does not come only as an opportunity because it is laced with various health challenges that significantly impact the HSBs of older people. As individuals age, greater obstacles, life experiences, healthcare expenditures, financial security and changing circumstances increase health risks that require positive HSB and proactive strategies for prevention or minimisation. Age-related health crises affect older people’s HSB, particularly their well-being, social interactions, decision-making, and self-control. A poor HSB encourages the postponement of treatment among the ageing population, leading to community transmission risk. Thus, understanding HSBs assists the aged, public health practitioners, and policymakers in improving the healthcare system and health promotion programs.

This paper notes that multiple factors, including types of society, environment, education, medical information, knowledge, cost of healthcare services, age, gender, personal attitudes and marital status, have influenced the HSB of older persons. This paper concludes that adequate and proactive HSB can help older people adaptively change and live happy and productive lives. Adequate and consistent access to health facilities, socioeconomic position, and perceived service quality impact HSBs across demographic groups. Older people should seek more information about their health and exercise daily to stay energetic, independent, and happy. They should maintain a healthy lifestyle, accommodate for bodily function changes and prioritise preventative health behaviours by becoming

immunised for health emergencies, obtaining frequent check-ups, and being optimistic about old age. Older people need to get abreast of arts, science, politics, and other cultural and social changes that may benefit their health. Also, they should be provided with free or subsidised health care and monthly financial aid to ease stress. More importantly, they should stay active, eat healthily, get enough sleep, limit alcohol, and manage healthcare.

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Contributory effect of Value added tax to Tax Revenue in Nigeria

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Abstract

This study examines the contributory effect of value-added tax on the level of tax revenue in Nigeria using time series data spanning from 2010 Q1 to 2021 Q4. The data used in this study were sourced from the Central bank of Nigeria (CBN) statistical bulletin. The technique used for estimation in this study was the Autoregressive Distributed Lag (ARDL) model, which was employed to examine the short-run and long-run impact of value-added tax on tax revenue. The result shows that value-added tax has a negative and insignificant contributory impact on tax revenue in the long and short run. The study recommends that government should work at increasing the level of VAT in the country until it contributes positively to the overall tax revenue and the economy.

Keywords: Value-added tax, tax revenue, ARDL.

Introduction

Every government is saddled with the responsibility of looking after the welfare of its people and also providing for their needs in one way or the other. In other words, for this to be possible, the government will be in need of funds to fulfil this responsibility. Funds can be generated using taxes. Taxation is the compulsory levy imposed by the government on economic agents such as firms and households (Goode, 1984). Every tax must be based on a valid statute. If there is no valid statute, no legitimate tax can be imposed (Okafor, 2012). It is a financial charge or other levy imposed upon a taxpayer (an individual or legal entity) by a state or the functional equivalent of a state, usually considered a major source of government revenue for the funding of various public expenditures (Edame and Okoi, 2014). Tax is a major source of revenue for the government. The flows from this revenue are used to provide public goods, maintain law and order, defend against external aggression, and regulate trade and business in order to ensure social and economic processes (Edame, 2008). Tax revenue has accounted for a small proportion of total

government revenue over the years because the bulk of the nation's revenue needed for development purposes is derived from oil. Among the various types of taxes (i.e. companies income tax, petroleum profit tax, personal income tax, withholding tax, education tax, stamp duties, information and technology tax, capital gain tax etc.) collected by the government, value-added tax (VAT) is a consumption tax that is relatively easy to administer and difficult to evade, and it has been embraced by many countries world-wide which is because VAT provides an avenue for citizens to contribute funds through a compulsory levy to help the government in achieving their objectives (FIRS, 1993). VAT increases government revenues without charging affluent taxpayers more, unlike income taxes which charge them more. Also, it is easy and more uniform than the traditional sales tax, with a smaller amount of compliance issues. Ultimately, VAT basically pays off for the communal service and infrastructure provided in an economy by the government and financed by its taxpayers that were used in providing the products or services. In many developing countries, VAT has become a major

source of revenue to Sub-Saharan African (SSA) countries such as Benin, Côte d'Ivoire, Guinea, Kenya, Madagascar, Mauritius, Niger, Senegal, Togo and Nigeria as this was adopted in the 1980/90s (Kaisa, Mika and Jukka, 2019).

Furthermore, VAT was introduced into Nigeria's tax system as a means of increasing government revenue, given the steadily rising costs of governance on the one hand and the dwindling and erratic returns from petroleum, Nigeria's principal source of revenue. VAT in Nigeria today replaced the existing sales tax, which had been in operation under the Federal Government Legislated Decree No. 7 of 1986 (Okoli and Afolabi, 2015). The interesting aspect of Nigeria's Value Added Tax is that it is very low, which has stood at a single rate of 5% in 1996, not until the recent increase to 7.5% in 2020. The country has one of the lowest VAT rates in the world and in Africa. To mention but a few, Ghana has a rate of 12.5%, Angola, Botswana, and Egypt have a rate of 14%, while South Africa, Eswatini, Ethiopia, Sierra Leone, Equatorial Guinea, Seychelles, Mauritius, and Namibia have their rate at 15% (Statista, 2021). Due to problems like poor accountability, corruption of tax officials, tax avoidance and evasion and so on, which are faced by the tax administration in Nigeria, the administration has suffered several limitations in the discharge of their responsibility. Several studies have been carried out on this study by different researchers' on VAT and tax revenue (Karumba, 2016; Keen 2010; Saeed, Ahmad and Zaman, 2012), but little attention has been given to the issue of VAT and how they significantly influence economic growth. Economic growth comes into the picture when revenue is generated, and the government is able to fulfil its role in the economy. Therefore, this study seeks to underscore the contributory effect of VAT on Tax revenue in Nigeria. The time scope that will be used in this study will cover from 2010 to 2021 quarterly data from one to four. The rest of the paper is structured as follows: section two for literature review, section three is for theoretical framework and

methodology, section four is for data analysis and interpretation, and section five concludes the paper.

Literature review

The relevant studies reviewed for this study are presented in this section. Ofishe (2015) investigated the impact of value-added tax on economic growth in Nigeria so as to find out if revenue from VAT has any significant impact on economic growth. The study carried out its investigation from 1994 to 2012. The technique used was OLS. After having analyzed the objectives using the technique chosen, the result showed that there is a positive and significant impact that VAT has on total revenue in Nigeria. Total revenue growth also had a substantial effect on economic growth. It is concluded that Value Added Tax has a significant impact on the economic growth of Nigeria. Government should put in place measures that will ensure that revenue obtained from VAT is effectively and efficiently utilized to grow the economy and enhance infrastructural development. Efuntade (2020) examined value-added tax and its effect on revenue generation in Nigeria from 1999 to 2019. The technique used in the study is the VECM method of analysis. The findings show that Value Added Tax has a significant positive relationship with revenue generation. PIT has a positive and significant impact on oil revenue. CIT also has a positive and significant relationship with total public borrowing. Government should ensure strategies that will help maintain adequate accounting procedures in the tax system to enhance the efficiency of VAT.

Ubesie, Igweonyia and Ubaka (2019) analysed a causal and long-run nexus between value-added tax and the economic growth of Nigeria from 1994 to 2017 to examine the implication of VAT on revenue generation in Nigeria and also to know how VAT affects the economic growth. Data was sourced from the Central Bank of Nigeria (CBN) statistical bulletin and the National Bureau of Statistics (NBS). The technique used in this study

is Vector Error Correction Mechanism (VECM), Granger Causality Model, and Vector Autoregressive (VAR). Findings using this technique showed that Value Added Tax and Tax revenue both have short and long run significant influences on the growth of the Nigerian economy. It is recommended that the economy restructure for taxation to serve as a major source of non-oil revenue for the Nigerian economy. There are many other recommendations in the study. Odunsi (2022) examined the effect of VAT on Nigeria's revenue generation and economic growth. The data was gathered from the Central Bank of Nigeria (CBN) statistical bulletin, Federal Inland Revenue Service reports, the Federal Office of Statistics, and the Federal Ministry of Finance for a period of twenty-five (25) years (1994-2018). The data was evaluated using the regression (OLS approach), and the result indicated that the impact of VAT on economic growth and tax revenue generation in Nigeria was positive and significant. The study suggests that the government should establish appropriate tax management to increase revenue and implement better economic policies and macroeconomic changes.

Onuora, Okegbe and Ezejiofor (2017) found out that: Value Added Tax (VAT) contributes to the total tax revenue of the nation, Value Added Tax (VAT) contributes to the Gross Domestic Product of the nation and also Value Added Tax (VAT) revenue has impact on the actual VAT with data gathered from CBN statistical bulletin, Federal Inland Revenue Services federal ministry of finance, and journals. The data obtained were analyzed using Simple regression analysis over a period of thirteen years (2003 to 2015). The recommendation of this study, among others, is that governments' agencies are advised to be loyal and disciplined when utilizing public funds obtained from VAT. Ugwu, Peter and Udolu (2019) investigated the effect of VAT on total government revenue in Nigeria from 1994 to 2017 using Ordinary Least Square (OLS). This study generated data from the Central Bank of Nigeria statistical bulletin and the Federal Inland Revenue

Service. The result of the study revealed that value-added tax benefits the Nigerian economy; this implies that value-added tax is statistically significant to government revenue in Nigeria. The recommendation is that value-added tax administration should be sustained while all known administrative ambiguity should be covered for VAT revenue to keep contributing more significantly to the government's total revenue. Keen and Lockwood (2007) conducted a panel study of 143 countries, exploring the causes and consequences of the spread of value-added tax. The findings revealed that adopting VAT by some countries leads to an increase in revenue generated while others do not, thus indicating mixed results. Saeed, Ahmad and Zaman (2012) analyzed the revenue effect of the value-added tax on revenue in the SAARC region from 1995 to 2010. The authors said the adoption of VAT in some parts of the region has proved to be a viable instrument for collecting tax revenue. The study indicates that VAT has been an effective tax instrument for most of the SAAR countries that adopted this tax form, as it has increased their GDP-to-revenue ratio. Olatunji (2009) used simple percentages and chi-square to analyze the effectiveness of the administration of value-added tax on government revenue, consumption patterns of consumers and output growth in Nigeria. The result was subjected to 433 returned questionnaires out of 550 administered. The result shows that value-added tax has been effectively administered and increased government revenue and economic growth. The author noted that the administration of tax would have an economic implication on the consumption patterns of Nigerians.

Onaolapo, Aworemi and Ajala (2013), in their study, investigated the impact of VAT, petroleum profit tax, company income tax and education tax on the total revenue generated within the periods of 2001-2010. It indicates that VAT has positive and significant impact on revenue generation when regressed alone and also with petroleum tax but negatively adding company income tax and education tax as regressors. The study concludes

that value-added tax is advantageous to Nigeria. They argued that for the economy to attain growth and development, adequate revenue must be generated to sufficiently provide social amenities and infrastructure.

The results obtained in the literature, it shows that there exists a gap in knowledge as there is few or no study conducted that examined the contributory effect of VAT on tax revenue in Nigeria. Hence, this study will fill the gap in knowledge.

Methodology

$$LTAXR_t = \pi_0 + \pi_1 CCIED_t + \pi_2 CCIEDSQ_t + \pi_3 CFTAX_t + \pi_4 CFTAXSQ_t + \pi_5 CVAT_t + \pi_6 CVATSQ_t + \varepsilon_t \quad (1)$$

The tax revenue (LTAXR) in this study is the total amount of tax collected in a year. CCIED and CCIEDSQ represent the contribution of Custom, Imports and Excise Duties and its square, CFTAX and CFTAX are the contribution of Federal Inland Revenue Service Tax and its square, while CVAT and CVATSQ represent the Value Added Tax and its square. π_0, π_1 to π_6 are the model's constant value and coefficients of the variables, respectively, while ε is the error term and t is time.

The data used in this study were sourced from the Central Bank of Nigeria's (CBN) Statistical Bulletin, 2020. The data that will be used for this study are basically time series data covering 2010:Q1 to 2021:Q4, a period of twenty-five years with 100 observations based on the availability of data for some of the variables. The dependent variable is measured by tax revenue (TAXR),

The study employs the Laffer curve theory, which is found relevant towards illustrating the relationship between VAT and tax revenue. It was believed that an increase in tax rates would increase tax revenue, but this was countered by Laffer that taking more money from a business in the form of taxes, the less money it will be willing to invest, and a business will find ways to protect its capital from taxation or to relocate all or a part of its operations overseas. He argued that this means less total revenue as tax rates rise and that the economic effects of reducing incentives to work and invest by raising tax rates would adversely affect the economy. Following the theoretical framework, this study specifies the empirical model of the contributory effect of value-added tax on tax revenue in Nigeria in equation (1):

while the independent variables are Custom, import and excise duties (CCIED), Firs tax (FTAX), and Value added tax (VAT).

This study utilized the Auto regressive distributed lag (ARDL) to estimate the parameters. The pre estimation test that was carried out were unit root test and bound test while for the post estimation test; normality, serial correlation, heteroskedasticity, CUSUM and CUSUMSQ were also carried out.

Data analysis and Interpretation

The study presents the description of the data series by evaluating the different statistical measures like mean, median, standard deviation, maximum and minimum values, skewness, kurtosis and Jarque-Bera values. The summary of statistics for customs, import and excise duties (CCIED), Firs tax (FTAX), and Value added tax (VAT) are presented in Table 1.

Table 1: Summary Statistics

	CCIED	CFTAX	CVAT	LTAXR
Mean	22.96	41.62	37.1	26.02
Median	23.45	37.39	38.75	25.93
Maximum	29.77	73.82	51.03	26.83
Minimum	12.36	28.15	25.45	25.28
Std. Dev.	3.34	11.22	5.95	0.37
Skewness	-0.77	1.26	-0.21	0.27
Kurtosis	3.8	3.94	2.65	2.3
Jarque-Bera	6.01	14.51	0.6	1.55
Probability	0.05	0	0.74	0.46
Sum	1102.05	1997.58	1780.62	1249.12
Sum Sq. Dev.	523.66	5919.38	1661.23	6.42
Observations	48	48	48	48

Source: Authors' computation (2022).

The summary statistics show that the average values of the contribution of custom, import and excise duties (CCIED), the contribution of Firs tax (FTAX) and the contribution of Value added tax (VAT) and tax revenue (LTAXR) were 22.96, 41.62, 37.1 and 26.02 respectively. The table also shows CVAT and CCIED are negatively skewed while CFTAX and LTAXR are positively skewed.

It also shows that CCIED and CFTAX are leptokurtic while CVAT and LTAXR are platykurtic. The Jarque-Bera values indicate that the data series is not normally distributed at 5% level of significance.

The study used Augmented Dickey Fuller (ADF) unit root test which is shown in Table 2.

Table 2: Augmented Dickey Fuller (ADF) unit root test

Variables	Levels		First Difference		Conclusion
	ADF Test	Test Critical	ADF Test	Test Critical	
LTAXR	0.58	-2.603	-15.743	-3.589***	I(1)
CCIED	-4.349	-3.592***	-	-	I(0)
CFTAX	-1.638	-2.603	-11.924	-3.589***	I(1)
CVAT	-2.377	-2.603	-14.077	-3.589***	I(1)

*, **, *** represent 10%, 5% and 1%, respectively

Source: Author's compilation from Eviews.

The ADF unit root test results shown in Table 2 indicate three variables are integrated at the first

difference I (1) while only CCIED is integrated at the level I (0) in the study.

Table 3: Bounds Tests

F-Statistics	Value	I (0)	I (1)	Decision
4.957	1%	3.27	4.39	Co integration exists

Source: Author's compilation from Eviews.

The result in Table 3 shows that the F statistics 4.957 is seen to be higher than the upper bound of the critical value of 4.39 at a 1% significance level. This implies that there is cointegration among the variables. The study, therefore, proceeds to use ARDL model, which is shown in Table 4.

In Table 4, it shows both the long-run and short-run results. In the table, the result of the adjusted R-squared indicates that only a 96.56% variation in tax revenue is explained. The Durbin -

Watson statistics of 2.04 indicates that there is no serial correlation in the model and also, the overall test using the F-statistics (89.296) is statistically significant at 1% level of significance, showing that the model is well specified and statistically significant. In the long run, it shows that an increase in the contribution of Value added tax to tax revenue will produce a 28.87% reduction in tax revenue, although at a 10% level of significance.

Table 4: ARDL Estimates

Dependent Variable: LTAXR

Long run estimates				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
CVAT	-0.288708	0.152321	-1.8954	0.0651
CFTAX	0.019881	0.20591	0.096552	0.9236
CCIED	0.000929	0.218334	0.004257	0.9966
Short run estimates				
D(CVAT)	0.02432	0.01975	1.23145	0.2306
D(CVAT(-1))	-0.13922	0.02161	-6.44305	0
D(CVAT(-2))	-0.04594	0.01265	-3.63322	0.0014
D(CCIED)	-0.03162	0.01662	-1.90233	0.0697
D(CCIED(-1))	0.01051	0.00466	2.25655	0.0338
CointEq(-1)*	-0.33179	0.04613	-7.19227	0
R-squared	0.976565	F-statistic(Prob)		89.29551 (0.000)
Adjusted R-squared	0.965629	Durbin-Watson stat		2.038782

Source: Authors' computation.

An increase in the contribution of custom, import and excise duties and Firs tax both have a positive impact on tax revenue in the current quarter by 0.0929% and 1.9881%, respectively and they are all not significant at 1% or 5%. In the short run, the result indicates that an increase in the contribution of Value added tax to tax revenue will produce a 2.43% increase in tax revenue, although not significant. The coefficients of the contribution of custom, import and excise duties in the current lag have a negative and insignificant influence on tax revenue, while in the first lag, it has a positive and significant influence on tax revenue at 5% level of significance.

The coefficient of the contribution of value-added tax in the current lag has a positive and insignificant influence on tax revenue, while in the first and second lag, it has a negative influence on tax revenue which is significant at 1%. It is observed that the ECM is negative, less than one and significant at 1%. This indicates that 33.18% of the past error is corrected in the current period in the system.

The study tested for normality test, heteroskedasticity, serial correlation, CUSUM and CUSUMSQ which is shown in Table 5. It showed that the variables are normally distributed, it is homoscedastic, and there is no serial correlation while the CUSUM and CUSUMSQ are stable. The

CUSUM and CUSUMSQ graph is shown in Figure 1.

Table 5: Post Estimation tests for ARDL model

Post Estimation tests	
Normality: 0.946 (0.623)	Serial Correlation: 0.387 (0.684)
Heteroskedasticity: 1.136 (0.381)	CUSUMSQ: Within 5% lines
CUSUM: it is within 5% lines	
Source: Authors' computation	

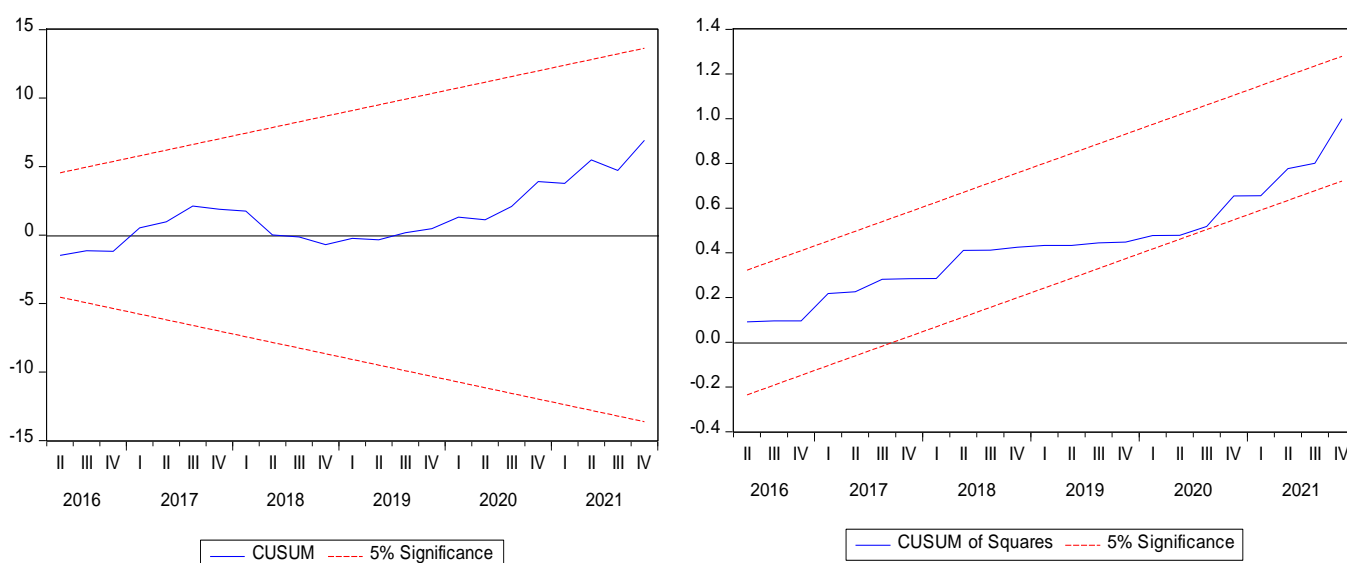


Figure 1: CUSUM and CUSUM squared graphs of ARDL model

Source: Author's compilation

In summary, VAT contributes negatively to tax revenue in both the short and long run. Among the other variables, customs, import and excise duties (CCIED), and Firs tax (FTAX) contribute positively to tax revenue in the short and long run. Ubesie (2019), Ofishe (2015), Odunsi (2022), Aworemi and Ajala (2013) result contradicts the findings of the study, but only Okoro and Onatuyeh (2018) findings are in line with the result obtained.

Conclusion

In this study, the contributory effect of value-added tax on the level of tax revenue in Nigeria has been examined to provide further evidence to the existing documented studies. The variables of the study are both integrated at the level and the first difference I (0) and I (1), respectively and the bound test is also co-integrated. The study used

ARDL technique for estimation and the results show that value-added tax has both long-run and short-run effects on tax revenue with data from CBN statistical bulletin. The result indicates that VAT contributes negatively to tax revenue in both the short and long run. Among the other variables, Custom, import and excise duties (CCIED) and Firs tax (FTAX) contribute positively to tax revenue in the short and long run. It is recommended that government should work at the increasing the level of VAT in the country until it contributes positively to the overall tax revenue as well as the economy.

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Human Capital Development and Poverty Alleviation in Nigeria: Evidence from ARDL Model

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Abstract

Theoretical and empirical research has emphasized that education is the most powerful instrument for developing and empowering citizens to master their social, cultural environment and compete for survival. However, most of the developing economies, although conscious of the transformation, that education brings, are yet to reap its full potential. A recent statistic on the multidimensional poverty index in Nigeria coordinated by the National Bureau of Statistics (2022) indicates that 63% of persons living in Nigeria (133 million people) are multidimensionally poor. Furthermore, the incidence of monetary poverty is lower than the incidence of multidimensional poverty across most states. The 2018/19 national monetary poverty line indicates that 40.1% of people are poor. Over time, different governments in Nigeria have adopted programmes and policies to address the challenge of poverty in Nigeria, some of which are based on the empowerment of youths and women, among others. Also, education at the primary level in most states in Nigeria is financed by the government. This study ascertains whether human capital development can alleviate the poverty level of Nigerians using data that spans from 1985-2020. The autoregressive distributed lag model was employed. It was found that a long-run relationship exists between human capital development and poverty in Nigeria. In the short run, government spending on health, consumer price index, final consumption expenditure and employed persons determine poverty headcount in Nigeria. Even though findings indicate significant relationships between key variables, the study recommends the urgent need to ensure that economic growth is inclusive and sustainable in Nigeria. This can be enhanced through increased public and private sector investment in education and health.

Keywords: Human capital development, poverty, government health expenditure, consumption expenditure and consumer price index.

Introduction

Many researchers over the decades have confirmed the assertion that humans are the most important and potential source of productivity. Economies have made appreciable economic progress accompanied by steady increases in economic growth via the persistent increase in capacity to train productive and skilled workers (Dixit *et al*, 2017). All these are required to manipulate capital, technology and land, among other things, in order to produce goods and services for human consumption. Related to this, human capital has been defined as “the abilities and skills of human

resources” (Adelakun, 2011). It is, therefore, the foundation and the end of any form of capital. Each of the integrals of human capital, education, and health has been proven to have a remarkable impact on economic growth. For instance, education has a strong impact on labour productivity, the rate of innovation, healthy living and technological improvements. It is beneficial to humans because it decreases inequality, improves the quality of life and, more importantly, it is a factor in increasing the income level of individuals (Campbell, 2021). Increased labour productivity translates to increased wages, and improved access

to health facilities, which ultimately leads to economic growth and general improvement of the aggregate living standard. Human development raises capacities and, consequently creativity and productivity of economic agents who make critical contributions to economic growth. It leads to labour quality, whose impact on economic growth is widely taken care of by investment in human capital (Campbell, 2021). The assumption is that an individual with better skills acquired from education and training have more choices and opportunity of getting a good job and do good business, thereby increasing his income level. This explains the importance of human capital for poverty reduction in developing countries. Furthermore, the higher the level of productivity, the higher the returns that accrue. The economic progress of East Asian countries has been noted in the literature to be primarily due to investment in education.

Davis and Sanchez-Martinez (2014) adopt the World Bank definition of poverty to imply deprivation in well-being. This includes low incomes, inability to acquire basic goods and services necessary for survival, poor health outcomes, low levels of education, poor access to clean water and sanitation and so on. In absolute terms, poverty implies a lack of basic amenities (food, housing, health care), while in relative terms, poor people have income below the benchmark in a community average, making it difficult for affected people to enjoy a decent life. The empirical literature has also confirmed that poverty is negatively linked with an income level of the household. So, higher wages imply low poverty. A World Bank Report puts it that most people in the world live in poverty. According to the statistics, about 85% of the world population lives on less than \$30 per day, about two-thirds survive on less than \$10 per day, while about every tenth person lives on less than \$1.90 per day (World Population Growth, 2021). This implies that no country or continent is actually free from poverty. However, the rate varies. Nigeria has been rated as one of the poorest countries in the

world. A recent statistic on the multidimensional poverty index in Nigeria coordinated by the National Bureau of Statistics (2022) indicates that 63% of persons living in Nigeria (133 million people) are multidimensionally poor. Furthermore, the incidence of monetary poverty is lower than the incidence of multidimensional poverty across most states. The 2018/19 national monetary poverty line indicates that 40.1% of people are poor. Furthermore, a recent Longitudinal Phone Survey (NLPS) indicate that the welfare status of Nigerians post-COVID-19 and their response to incessant insurgencies ravaging the six geopolitical zones in Nigeria have possible tendencies of pushing about additional 10 million Nigerians into abject poverty.

The high rate of poverty across the globe, especially in Sub-Saharan Africa, is of great concern to the United Nations (UN). This explains why in the year 2000, the UN led a global effort to tackle poverty by kickstarting the Millennium Development Goals (MDGs), with the first goal as “to eradicate extreme poverty across the globe by 2015”. The MDGs were not fully realized and thus were replaced by the 17 Sustainable Development Goals meant to end poverty, ensure prosperity and protect the planet by 2030. Surprisingly, despite the acknowledged importance of human capital development, the developing countries of sub-Saharan Africa (SSA), especially Nigeria, still lag behind other regions in human capital development, with the gap widening over time. The country continues to be faced with high levels of extreme poverty, a high annual population growth rate, a life expectancy that is among the lowest in the world, and a very low youth literacy rate

Successive government administrations at various times implemented different chains of policies and programmes such as Operation Feed the Nation, Rural Banking Scheme and Austerity Measures by Olusegun Obasanjo’s administration, 1976-1979; the Green Revolution by Shehu Shagari in 1980; War Against Indiscipline and Corruption by Gen Muhammadu Buhari in 1983;

the establishment of Peoples Bank, Directorate of Foods Roads and Rural Infrastructure (DFRRI), Nigerian Agricultural Land Development Authority (NALDA), National Directorate of Employment (NDE) and Family Support Program (FSP) by Babangida administration, 1986-1993; Family Economic Advancement Programme (FEAP) by the administration of Late Gen Sani Abacha in 1997; National Poverty Eradication Program (NAPEP) of 1999; and National Economic Empowerment and Development Strategy 1 and 2 (NEEDS). A more recent one is the N-Power programme of President Muhammadu Buhari's administration. These were all aimed at improving the economic and social conditions of the unprotected part of the population to reduce the level of severe poverty in the country. It is not clear if these policies have yielded any remarkable reduction in the country's poverty profile amidst increasing public spending, thus, prompting the question of whether any relationship exists between human capital and poverty in Nigeria.

Considering the latest multidimensional poverty index of Nigeria, and the fact that human capital development improves capabilities and increases the productivity of the working population, it becomes imperative to investigate whether an investment in human beings via the integrals of human capital can actually alleviate poverty in Nigeria using data that spans from 1985-2020. To this end, following this introduction is the review of theories, the link between human capital development and poverty, the methodology adopted for the study, empirical results of the study, the conclusion and recommendations.

Human Capital Theory

This theory attempts to answer the question of "Why the decision to invest in education is made?" The theory is therefore relevant at the decision-making stages. The proponents of this theory (Theodore Schultz, 1961; Garry Becker, 1967) see human capital as how education increases the productivity and efficiency of workers by

increasing the level of their cognitive skills. In other words, they see human capital as the stock of economically productive human capabilities, which can be formed by combining innate abilities with investments in human beings. Examples of such assets include expenditures on education, on-the-job training, health and nutrition. Such expenditures increase future productive capacity at the expense of current consumption. The provision of education is seen as a productive investment in human capital, an investment which the proponents of the human capital theory consider to be equally worthwhile than that in physical capital. The notion of education as a capital good is rooted in this concept of human capital, which attached a high premium to human skills as a factor of production in the development process. Human skill or productivity has been found by this theory to be just as important an input in the process of development as finance, natural wealth, and physical plant. The proponents of the theory have established that basic literacy enhances the productivity of workers in low skilled occupations. In this regard, an instruction that demands logical or analytical reasoning, or provides technical and specialized knowledge, increases the marginal productivity of workers in high-skill or professional positions. Thus, educational choices may be assimilated into investment decisions where rational individuals decide on the optimal amount of education they wish to acquire so as to maximize the net return on education. The higher the provision of schooling, the greater the stock of human capital in society. Consequently, the greater the increases in national productivity and economic growth.

Additional schooling, however is expected to generate benefits in terms of enhanced future earnings but also entail costs: direct as well as opportunity cost resulting from delayed entry into the labour market. It is also noteworthy that the human-capital theory contends that education participation/enrolment is an investment decision by which individuals forgo time and resources in return for higher wages in future. People invest in

education due to the consideration they have given to the future earnings streams that will result. From these submissions, it would be possible for individuals or households to build up human capital by investing in education with the expectation of deriving some satisfactory future benefits. Incidentally, such help would include increased earnings, heightened social status, and higher economic prestige associated with higher educational qualifications such as first, second and doctorate degrees. It can be inferred from the foregoing submissions that basic literacy enhances the productivity of workers in low-skill occupations. Furthermore, instruction that demands logical or analytical reasoning, or provides technical and specialized knowledge, increases the marginal productivity of workers in high-skill or professional positions.

Classical Poverty Theory

This theory was proposed by Lewis (1961) using Mexico and Puterico as case studies. The theory explains poverty in terms of the conditions under which the poor lives i.e. unemployment, underdevelopment, poor education and poor health. The theory emphasizes the relationship between income and productivity. Other researchers have also contributed to this theory. For instance, Shaffer (2008) explains poverty in terms of lack or inadequate incentive system to realize an individual's capabilities, the nature of economic underdevelopment and much more.

Human Capital Development and Poverty

Policymakers and academicians have long viewed human capital development via its integrals as a vital tool for economic growth and poverty reduction in any nation. Current projections assume that Sub-Saharan Africa cannot achieve the sustainable development goal of reducing extreme poverty to less than 3% unless income inequality is reduced drastically through more inclusive growth (Makuta and O'Hare, 2015). The key to poverty reduction and economic development, according to Philbin (1996) involves the ability of a nation to

engage in an adequate capacity building, which has to do with improving people's cognitive and non-cognitive abilities and their health. This involves developing and strengthening the skills, knowledge, abilities and resources that organizations and communities need to survive, adapt, and thrive in the fast-changing world. These qualities affect the possibilities of earning current and future money income. The assumption is that the higher the productivity of an individual, the higher the returns that accrue.

Poverty and human capital have been expressed in literature to possess a 2-way causal relationship. For instance, poverty is seen as hindering the accumulation of human capital. Zhang (2014) puts it that due to the high costs of education in Western China, low-income households are prevented from accessing education. This perpetuates the poverty trap. Credit constraints have also been found to have a negative effect on human capital accumulation, especially for poor households (Hai and Heckman, 2017). The works of Hong and Pandey (2007), Arias, Gimenez and Sanchez (2016) employed the Logistic and Probit Models respectively to show that human capital reduces the likelihood of an individual being poor.

Analyzing time series data through descriptive analytical techniques, empirical studies of Ali, Ahmad et al (2013) Janjua and Kamal (2014), and David *et al.* (2018) submit that human capital has a negative impact on poverty levels in developing countries. Sustaining growth and making it inclusive requires innovative solutions and efficient investments in human capital development. Developing and utilizing education skills, health, and other forms of acquired knowledge serve as a crucial determinant of a nation's productivity and standard of living. This is excessively illustrated by the outstanding records of Japan, Taiwan, Hong Kong, South Korea, and other fast-growing Asian economies as most of them lack natural resources, which is believed to be a major determinant of economic performance. Nevertheless, these nations have managed to

experience significant, extreme and rapid economic growth and development because they have had a well-trained, educated, healthy and hard-working labour force.

Methodology of the Study

This study makes use of both descriptive and inferential statistics to capture the nature of the relationship existing between human capital development and poverty in Nigeria.

Model specification

With reference to the study of Anyanwu (2013) that examined the correlates of economic growth for poverty reduction in Nigeria, this study specifies a regression model where poverty is dependent on human capital development and other explanatory variables. Equation (1) is a

$$pov_t = \beta_0 + \beta_1 pse_t + \beta_2 gdp_g_t + \beta_3 gxh_t + \beta_4 cpi_t + \beta_5 fce_t + \beta_6 emp_t + \varepsilon_t \quad (2)$$

The autoregressive distributed lag model expressed in equation (3) is a long-run cointegration and bounds test. Δ is a difference operator, $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$ are measures in the

$$\begin{aligned} \Delta pov_t = & \beta_0 + \sum_{i=1}^k \beta_1 \Delta pov_{t-i} + \sum_{i=1}^l \beta_2 \Delta pse_{t-i} + \sum_{i=1}^m \beta_3 \Delta gdp_g_{t-i} + \sum_{i=1}^n \beta_4 \Delta gxh_{t-i} + \sum_{i=1}^o \beta_5 \Delta cpi_{t-i} \\ & + \sum_{i=1}^p \beta_6 \Delta fce_{t-i} + \sum_{i=1}^q \beta_6 \Delta emp_t + \delta_1 pov_{t-1} + \delta_2 pse_{t-1} + \delta_3 gdp_g_{t-1} + \dots + v_t \end{aligned} \quad (3)$$

The analysis of error correction model is represented using equation (4) below

$$\begin{aligned} \Delta pov_t = & \alpha_0 + \sum_{i=1}^n \beta_i \Delta pov_{t-i} + \sum_{i=0}^y \gamma_i \Delta gdp_g_{t-i} + \sum_{i=0} \theta_i \Delta gxg_{t-i} + \sum_{i=0} \eta_i cpi_{t-i} \\ & + \sum_{i=0} \chi_i fce_{t-i} + \sum_{i=0} \lambda \Delta_i emp + \phi ecm_{t-i} + v_t \end{aligned} \quad (4)$$

Sources of Data

The research employed time-series data for the period of 1985 to 2020 for each variable, such as Poverty (Poverty headcount ratio at \$1.90 a day 2011 PPP % of the population), primary school enrolment rate, gross domestic product growth rate, log of government expenditure on health, log of final consumption expenditure, log of employed population and consumer price index. The time

growth model that shows that poverty is a function of GDP growth rate, and primary school enrolment, among other variables.

$$pov_t = (gdp_g_t, pse_t, gxh_t, cpi_t, fce_t, emp_t) \quad (1)$$

The model is modified to incorporate other variables identified in the literature to determine poverty.

Where: pov = poverty headcount; gdp_g = gross domestic product growth rate; pse = primary school enrolment; gxh = government expenditure on health; fce = final consumption expenditure; emp = persons employed; cpi = consumer price index; and t = time.

Equation one can be captured econometrically in functional form, and the model is expressed in equation (2):

short term, $\delta_1, \delta_2, \delta_3, \delta_4, \delta_5, \delta_6$ measure long run relationship and v_t is the error term. To measure cointegration, the null hypothesis states that: $H_0: \delta_1 = \delta_2 = \delta_3 = \delta_4 = \delta_5 = \delta_6 = 0$

series data are derived from various secondary sources such as the Central Bank of Nigeria Statistical Bulletin, the National Bureau of Statistics (NBS) and the World Development Indicators (WDI). The data gathered were subjected to various econometric tests with the aid of E-views.

Empirical Result and Discussion

The empirical estimation commences with a unit root test to confirm the stationarity level of the variables understudied using the Augmented Dickey-Fuller (ADF) approach. The need to understudy the stationarity test becomes imperative since many macroeconomic series

usually exhibit non-stationarity at the level (Granger, 1981). This, therefore, makes the estimation outputs spurious. The result of the ADF estimator at a 5% level of significance is presented in Table 1.

Table 1: Test of Unit Root in the Variables

Variables	Augmented Dickey Fuller (ADF) Test				Decision
	@ Level		@ First difference		
	t-statistic	P-value (5%)	t-statistic	P-value (5%)	
pov	-1.860	0.654	-7.6811	0.00*	I(1)
pse	-3.27	0.024*	-	-	I(0)
gdp _g	-3.04	0.136	-5.01	0.002*	I(1)
lnf _{ce}	-4.91	0.002*	-	-	I(0)
ln _{gxh}	2.93	1.00	-6.7	0.00*	I(1)
ln _{nemp}	-1.029	0.73	-5.83	0.00*	I(1)
cpi	-3.38	0.01*	-	-	I(0)

Note: (*) indicates significance at 5%

Source: Authors Computation (2022).

Following the unit root test result reported in Table 1, the outcome shows that we do not accept the null hypotheses of a unit root in primary school enrolment, consumer price index, and final consumption expenditure at a 5% significance level. It implies that the series (i.e. primary school enrolment, consumer price index, and final consumption expenditure) are stationary at levels, i.e. I(0). However, the alternative hypothesis that there is no unit root in employment, government expenditure on health, GDP growth rate and poverty is rejected at the conventional level. Afterwards, the stationarity test of the economic variables was conducted at the first difference, and the results show the non-acceptance of the null

hypotheses of unit root at a 5% level of significance. Therefore, the variables - employment, government expenditure on health, GDP growth rate and poverty are found stationary at first difference, i.e. I(1). Based on the stationarity test result of the variables found to exhibit both I(0) and I(1) features, the autoregressive distributed lag (ARDL) bound approach is found to be the most appropriate estimation method to estimate the relationship between human capital development and poverty in Nigeria. Table 2 provides the bound test for the cointegration between human capital development and poverty in Nigeria.

Table 2: Bounds test for Cointegration

F-Statistic (pov, pse, gdpg, lnfce, lngxh, lnemp, cpi)	3.920088*		
Critical values	1%	5%	10%
Lower Bound I(0)	3.15	2.45	2.12
Upper Bound I(1)	4.43	3.61	3.23

Note: (*) shows significance and rejection of no cointegration of null hypothesis at 5% level

Source: Authors' computation (2022).

According to the estimated bound result in Table 2, the F-statistics of 3.92 is greater than the upper bound of 3.61 at 5% significance level. It implies that there is a cointegration among poverty, primary school enrolment rate, gross domestic product growth, government expenditure on health, final consumption expenditure, employed persons, and consumer price index. Thus, this means that there is a long-run relationship between poverty, primary school enrolment rate, gross domestic product growth rate, government expenditure on health, final consumption expenditure, employed persons, and consumer price index in Nigeria. The economic implication is that there is a long-run relationship between human capital development and the poverty rate in the Nigerian economy within the period of 1985-2020.

The long-run and short-run estimates for all the explanatory variables are presented in Table 3. Following the long-run estimates, the result shows that government health expenditure has a direct and significant impact on poverty reduction. This

is empirical evidence that government spending on health has not been able to curtail the number of poor people in the country. It, therefore, means the current government expenditure on healthcare facilities and services does not have the capability of reducing the average number of people living below US\$1.90/day. Notably, the reason is not farfetched since the country's national budget on health falls below 5% of the total budget over the year against at least 15% of the yearly national budget to the health sector proposed by African leaders at the Abuja declaration in 2001 and World Health Organization (WHO, 2014). It should be noted here that there is strong evidence in the literature that provision of good health across the population significantly contributes to labour and human capital that achieve economic growth and, ultimately individual's income and well-being (Hsiao and Heller, 2007). However, the coefficients of primary school enrolment, GDP growth, final consumption expenditure, employment and consumer price index are not significant statistically at the 5% level.

Table 3: ARDL Result

Dependent Variable: Poverty			
Long run Estimates			
Variables	Coefficient	Std. Error	T statistic
pse	-1.067	0.72	-1.48
gdp	-0.08	0.945	-0.08
lnfce	-1.32	0.96	-1.38
lngrh	12.79	6.04	2.12**
lnemp	-21.96	25.99	-0.84
cpi	0.04	0.23	0.19
Short run Estimates			
$\Delta(\text{poverty}(-1))$	0.36	0.12	2.93**
$\Delta(\text{fce})$	-0.17	0.09	-1.89*
$\Delta(\text{lngrh})$	0.39	1.30	0.30
$\Delta(\text{lngrh}(-1))$	-3.94	0.98	-4.04***
$\Delta(\text{lngrh}(-2))$	-4.93	1.12	-4.39***
$\Delta(\text{gdp})$	-0.18	0.17	-1.05
$\Delta(\text{gdp}(-1))$	0.43	0.18	-2.41**
$\Delta(\text{gdp}(-2))$	0.35	0.22	1.63
$\Delta(\text{cpi})$	-0.13	0.06	-2.14
$\Delta(\text{cpi}(-1))$	0.09	0.04	2.27**
$\Delta(\text{cpi}(-2))$	0.11	0.05	2.12**
$\Delta(\text{emp})$	131	32.93	3.98***
$\Delta(\text{emp}(-1))$	-319	46.92	-6.80***
ECT(-1)	-0.47	0.07	-6.41***
C	204	31.04	6.59*
R- squared	0.84	Serial correlation	Prob. =0.24
Adjusted R-squared	0.72	Heteroskedasticity	Prob. =0.39
F statistic	6.93	Normality	0.002
Durbin-Watson	2.68		

Note: (***, **, *) significant at 1%, 5% and 10% respectively

Source: Authors' computation (2022).

As regards the short-run estimates, findings show that the lagged value of poverty at one is positive and significant at 5%, which implies that poverty can be reinforcing and may not be minimized in the short run. With respect to final consumption expenditure, its parameter estimate is negative and significant to the poverty level at 10%. Specifically, an increase in final consumption expenditure in the current period reduces poverty by 17%. The study concludes that final consumption expenditure has a reducing effect on poverty in the short run, as higher final

consumption expenditure is an indication of an improved welfare level. Similarly, the first and second lags of government health expenditure have negative coefficients, which are significant statistically at the 1% level. However, lag one of GDP growth is found to be significant and positive to poverty. This means that there is a likelihood that the growth rate of the national income is insufficient to reduce poverty. More so, the highly volatile nature of the major income-earning sector of the Nigerian economy could inform its ineffectiveness in poverty reduction.

The consumer price index in the current period shows a negative relationship with poverty headcount, while one and two lagged values of the consumer price index are positive and significant to increase poverty headcount. A positive relationship is expected between the consumer price index and poverty as it reduces disposable income thereby increasing the number of people experiencing poverty as there is a fall in the purchasing power of money. This is reflected in the first and second lagged values of the consumer price index as an increase in the consumer price index increases poverty headcount by 9% and 11%, respectively.

Logged values of employed persons in the current period show a positive and significant relationship with poverty in the short run, while lag one of the variables shows a negative relationship with poverty. The study by Dusun and Ogunleye (2016) found that employment is not significant to poverty reduction, necessitating further examination of the employment capability of the productive sectors of the economy that aid poverty reduction. According to Ajakaiye et al. (2016), agriculture contributed more to employment, estimated at above 50%. Unfortunately, this sector is subject to persistent insurgencies or insecurities, which can discourage investment in the sector. The attacks by herdsmen on farm owners and the crisis in the northern part of Nigeria can scare people from investing and working in the sector. The informal sector employs more people, with a high level of uncertainty hence unstable income flow; also, the fall in the oil price, which is a major export product of Nigeria, has an impact on GDP and employment variables in Nigeria.

The error correction term is negative, significant and less than one, signifying that if there is a disequilibrium in the model, the speed of adjustment to equilibrium is 47%. The diagnostic tests examined are serial correlation, heteroscedasticity and normality; while there are no challenges with serial correlation and heteroscedasticity, the error term is not normally distributed.

Conclusion and Recommendations

This study presented the analysis of human capital development and poverty relationship in Nigeria. Empirical analysis using time series data over the period 1985- 2020 shows that government spending on health has a positive relationship with poverty in the long run, an indication that government spending on health is not sufficient to reduce poverty in the country in the long run. The employment variable in the current period has a reducing effect on poverty. However, the employing sector can determine the extent to which poverty is reduced. There is a need to address the unemployment problem being faced in the country since employment guarantees income and could directly cause a decline in poverty. Employment schemes that support entrepreneurship, informal sector training and the development of human capital can enhance human capital development.

Several initiatives on human capital development will be a step in the right direction to fight against poverty and social exclusion in Nigeria. There is an urgent need for the alignment of existing curricula and the development of new curricula for tertiary institutions to match the needs of the manufacturing sector in research and innovation. This will, without a doubt drive the structural transformation of the economy. Focusing on job-creating and broad-based growth cannot be overemphasized. Giving all citizens due consideration for improved quality of public services and efficiency as measured by the incidence of public spending should be re-visited by the government. There is also the need for support safety nets to protect citizens against economic and social shocks. Improving access to education, nutrition and health in Nigeria need urgent attention, given that the United Nations and World Health Organization have a benchmark on budgetary allocation to health and the United Nations Educational Scientific and Cultural Organization (UNICEF) benchmark of 26% budgetary allocation to education. All these

measures will drive structural transformation in the form of reallocation of economic activity to the manufacturing sector of the Nigerian economy, which presently is at a low level of performance. Above all, poverty reduction among the citizenry will be achieved.

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