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Editorial

This issue of NIU *Journal of Social Sciences* focuses on Development Administration, Demography, Educational Management as well as Peace and Conflict Studies.

The first part of the Journal addresses issues in Development Administration such as Fiscal Policy, Economic Repositioning, Social Corporate Resposibility, Rural Development, Election Management, External Debt Management and so on. It is argued in one of the papers that external debt had no significant effect on sustainable infrastructural development in Nigeria. As the solutions to the challenges, the paper recommends among others that the National Assembly and the Federal Ministry of Finance should ensure that external loans are tied to specific projects.

Section two explores issues in Peace and Peace Studies such as Use of Strikes by Labour Unions, Vilangitism in National Seurity, Criminal Victimization, Insurgency and the Institutional Service Quality of Security Agencies in Nigeria. In assessing and exploring Management Control and Institutional Service Quality in Nigeria Police Force and Nigeria Customs Service with the use of Mixed Research Design, one of the papers in this section concludes that Over-centralised management system of both agencies with Powers clearly concentrated in Abuja serves as impediment to service quality in the two agencies and suggests that the management of the NPF and NCS should institute effective management control mechanisms that is transparent and impartial to swiftly check its personnel excesses regardless of cadre in the agencies.

In the Section on Demography, one of the papers argues that climate change has critical human security impact on the countries under study and it is not a problem that one country can solve on its own as floods and droughts know no national boundaries. It, therefore, recommends concerted effort and cooperation between Nigeria and Niger Republic in tackling the issues associated with climate change.

Papers in the last section are on Educational Management. Using Akwa Ibom State in Nigeria as a case study, one of the papers in these sections reveals that one of the major challenges confronting public and private schools is lack of resources for science delivery, some of the community resources available were not utilized, science teachers' rating of the efficacy of community recourses in instructional delivery was high and there was no significant difference in the use of community resources between private and public secondary school science teachers ($t= 0.130$, $df=478$;$p>.05$). It is concluded that for science teachers to be effective in carrying out

their instructional functions, there is need to harness and use the abundant resources of the surrounding communities in their teaching.

In all, this edition of *NIU Journal of Social Sciences* features many interesting research papers. Some of these papers are empirical in nature while others have theoretical base. Each of them focuses on one specific social and management problem or the other; trying to proffer solutions to them. Readers are therefore advised to make proper use of the ideas presented by the various authors.

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Part One
Development Administration

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Fiscal Policy and Economic Development in Nigeria: A Study of the Economic Recovery and Growth Plan (ERGP) 2014 – 2019

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Abstract. There is an implicit assumption in most policy studies that once a policy has been formulated the policy will be implemented. However, this is not often the case most especially in developing countries where governments tend to formulate broad, sweeping policies, and government bureaucracies often lack the capacity for their implementation. Within the framework of systems theory, this paper examined the impact of implementing fiscal policy on economic development with specific reference to the Economic Recovery and Growth Plan (ERGP) 2014-20-19. This study utilised qualitative research design to gain an insight into the impact of implementing fiscal policy on economic development. The researchers also consulted different sources to ensure quality of the paper. Subsequently, relevant sources of this research were fairly and professionally scrutinized, understood and tested with the available literature for the purpose of this research. This paper argues that it is not enough to make public policies; implementation is the key, because it is by implementing policies that economic development can be achieved in a country. This study discovers that, the implementation of the ERGP was the major factor that brought Nigeria out from recession. Though, the targets of the ERGP have not fully been met but it was able to contribute positively to the country's economy. It concludes that, the implementation of fiscal policy can bring about economic development in a country. Therefore, the ERGP plan should be revised and extended for more years in order to bring more positive impact on the Nigeria economy.

Keywords: Economy, Governance, Management, Recovery, Sustainability

1. Introduction

There is an implicit assumption in most policy studies that once a policy has been formulated the policy will be implemented (Khan, 2016). This assumption however, cannot be said to be valid for policies formulated in many Third World countries. Third World governments tend to formulate broad, sweeping policies, and governmental bureaucracies often lack the capacity for implementation (smith, 2009). Research studies have it that public policy analysis is a specialized field that has traditionally tended to favour the study of the policy making process by concentrating on the participants and their interests; compromise through bargaining and negotiation; expertise in policy making and the role of analysis (Paki & Ebienfa, 2011). However, the observation is made that public policy making and its ramifications, are not the only significant aspects of the public policy process but also and most importantly the way policy is implemented (Marume, Mutongi & Madziyire, 2016). A policy is but a wishful thinking until it is implemented. Ebienfa and Paki (2013) argued that policies play crucial role in the development and underdevelopment of a given state. However, there have been no lacks of public policies in Nigeria since independence. The paradox of public policy implementation has continued to militate against the realization of public objectives in the country. The reason being that most governmental policies either end prematurely only at the formulation stage; or are purposely designed not to be religiously implemented (Nnajiofor, Ifeakor & Mgbemena, 2013). This paper focuses on the importance of the implementation of fiscal policy on

economic development: a study of the Economic Recovery and Growth Plan (ERGP).

Fiscal policy is largely based on the ideas of a British economist John Maynard Keynes (1883-1946), who argued that economic recessions are due to a deficiency in the consumption spending and business investment components of aggregate demand. Keynes believed that governments could stabilize the business cycle and regulate economic output by adjusting spending and tax policies to make up for the shortfalls of the private sector (Hayles & Boyles 2021). Fiscal policy is the use of government spending and tax policies to influence economic conditions, especially macroeconomic conditions, including aggregate demand for goods and services, employment, inflation, and economic development. The paper argued that it is not enough to make policies but also and most importantly to implement them. It is by implementing policies that it can be able to bring about economic development. It is based on this assertion that this study investigated the impact of the implementation of fiscal policy on the Nigeria economy by examining the ERGP.

The ability of an economy to support a defined level of economic production and minimal fluctuations in the macro-economy is a function of the policies of the government and actions of its Central Bank (Akinyede &Elumah, 2017). The Nigerian government periodically sets policies as corrective measures for the volatile economy. The Federal Government and the Central Bank of Nigeria are taxed with setting policies to fit all aspect of government, ministries and industries with important economic component. Despite these efforts, the Nigeria economy has faced the problem of excess liquidity, slow growth in gross domestic product (GDP), unpredictable inflation rate, periodic variation in external reserves, exchange rate inconsistency, yearly budget deficit and untapped revenue sources aside revenue from crude oil, causing different system of monetary and fiscal policies to evolve in Nigeria (Musasa, 2012). Nigeria economy dropped into recession in 2016 showing negative economic shocks, conflicting economic policies, and security problems (African Economic Outlook 2017).

Flowing from the foregoing, the paper argues that making fiscal policies is not enough to achieve economic development but also and most importantly is the implementation. The ERGP was examined to explain the importance of fiscal policy implementation on the Nigeria economy. In order to guide the motive of this paper, the researcher intended to find answers to: why was the ERGP adopted? What are the targets of the ERGP? What is the impact of the implementation of the ERGP on the Nigeria economy?

To address the issues raised, this article is divided into five parts. Aside introduction, the first part explores the conceptual and theoretical framework. The second examines the factors that led to the adoption of the ERGP. The third provides an overview of targets of the ERGP. The fourth discussed the impacts of the implementation of the ERGP on the economic development of Nigeria. The fifth and last part of this work makes conclusion and recommendations on how the government can improve economic development in Nigeria.

2. Methodology

This study, which is theoretical in nature, drew its arguments mostly from secondary data, which included, textbooks, journal publications and internet sources. Subsequently, relevant sources of this research were fairly and professionally scrutinized, understood and tested with the available literature for the purpose of the research. It included scan-reading, comprehensive and critical reading and writing down ideas. Authoritative scholarly sources were reviewed, during a desktop study. The purpose was to identify the relevant publications and apply them in the research.

3. Conceptual and Theoretical Clarifications

Fiscal policy is the means by which a government adjusts its level of spending to monitor and influence a nation's economy. It is used along with the monetary policy, which the central bank uses to influence money supply in a nation. These two policies are used to achieve macroeconomic goals in a nation. These goals include price stability, full employment, reduction of poverty levels, high and sustainable economic growth, favorable balance of payment, and reduction in a nation's debt (Reem as cited in Agu, Okwo &Ugwunta, 2015).

The term "policy implementation" has been defined by many scholars from various perspectives. It means the execution of the law in which various stakeholders, organisations, procedures, and techniques work together to put polices into effect with a view to attaining policy goals (Khan, 2016). Even the very best policy is of little worth if it is not implemented successfully or properly. Implementation studies, therefore, place emphasis on understanding the success or failure of public policy by elaborating on factors that affect it. The concept of implementation helps to draw the attention of policy makers and implementers to study the processes that influence and establish the outcome of public policy (Bempah, 2012). This paper argued that it is not enough to make public policies, but also very

important to implement it in order to bring about economic development.

Economic development is a process of targeted activities and programs that work to improve the economic wellbeing and quality of life of a community by building local wealth, diversifying the economy, creating and retaining jobs, and building the local taxes (Romer, 2016). Hill (2020) went further to express that economic development is often defined based on what it is trying to accomplish.

Gross Domestic Product (GDP**)** refers to the total market value of goods and services produced by a country's economy during a specific period of time (Bondarenko, 2020). That is to say GDP is the sum of consumption, investment, government spending and net exports. It is used throughout the world as the main measure of output and economic activity.

4. Theoretical Framework

This paper adopted the systems theory which is generally traced to the work of English sociologist and philosopher Herbert Spencer who argued for a unitary form of the social system (Spencer, 1872). Also, a French social scientist Émile Durkheim believed that society is a complex system of interrelated and interdependent parts that work together to maintain stability (Durkheim 1893). Systems analysis was further influenced by Bertalanffy (1950) and Parsons (1970), who gave a broad description of systems theory. Their theory explained how the various parts and levels of a political system interact with each other. The central idea of systems analysis is based on an analogy with biology: just as the heart, lungs, and blood function as a whole, so do the components of social and political systems. When one component changes or comes under stress, the other components will adjust to compensate. Moreso, Griffiths & Tabery (2013) explained that systems theory identifies processes that explain how a system retains its functions while continuing to integrate new information from the environment and adjoining systems.

Nigeria seemed to be running a mono-economic system where the major focus was on oil. Oil revenue was the major source of virtually all public expenditure until the price dropped worldwide. This brought the country into recession in 2016. It was at this point that the government had to think outside the box to look at other sectors of the Nigeria economy. The ERGP appeared to be the best option to make up for the stress in the oil sector. This study therefore intends to find out the impact of implementing the ERGP on economic growth in Nigeria.

5. Factors that led to the adoption of the ERGP

There was a rapid growth in the Nigerian economy between the year 2000 and 2013 in terms of Gross Domestic Product at an average rate of 8% (IBRD, 2014). Also, the per capita income rapidly increased from US$646 to US$2,937, nearly tripling the initial growth rate. This is shown in the table below:

Table 1: Nigeria's GDP growth rate for years 2004, 2010 and 2013.

Macro-Economic Context	**Growth Rates for years 2004, 2010 and 2013**		
	2004	2010	2013
GDP ($ billion)	87.8	369	509.9
GDP Growth Rate	10.3%	7.8%	7.3%
GDP per Capita ($)	646	2.311	2.937

(**Source:** IBRD, (Report No PAD927, 2014)

This rapid growth in GDP however, did not transform the structure of the economy of Nigeria. The level of poverty and unemployment worsened in the same period (IBRD, 2014), which goes against the conventional economic thinking that expects a positive effect of the GDP on the people's standard of living. The reasons for this contradiction were explained by Kazeem (2017) as follows:

Firstly, a significant part of the propulsion for growth emanated from the oil sector. Between 2004 and 2013 the sector accounted for about 25% of GDP and over 90% of export revenues. Despite this achievement, no domestic petro-chemical industry was developed, thereby limiting employment opportunities. Secondly, the post-structural adjustment naira devaluation and the wrong fiscal policies after 1990 which was characterized by the continuation of the long-term trends of both de-industrialization and the weakening of primary exports, generated unemployment and sowed the seeds for subsequent fall in GDP growth. Thirdly, underdeveloped infrastructure such as bad roads, poor power generation and distribution inhibited structural development of the Nigerian economy. Fourthly, the Micro, Small, and Medium Enterprises (MSMEs) sector was substantially underdeveloped. This sector has perhaps the highest potential for generating jobs and also for promoting equitable

growth. In 2014, the oil sector contributed about 52% of GDP and employed 82% of Nigeria's workforce (CBN, 2018). In terms of access to credit for development though less than 5% of credit from financial institutions went to MSMEs, leaving about 89% of the 37 million enterprises in this sector without access to credit from the formal financial sector. This severely limited their capacity to grow, increase value addition, modernize processes and technology and boost employment creation (Development Bank of Nigeria, 2017). The fifth reason is inadequate educational system in both quality and quantity has not sufficiently developed in content and structure to suit the evolving market needs (Kazeem, 2017).

These are indicative factors explaining the specific characters of development in Nigeria. It helps to explain the circumstances under which the Buhari administration took over power in May 2015 and thereby the imperatives of economic policy needed to address the challenges encountered. The challenges became clearer when the normalisation of monetary policy in the United States and the over 60 per cent drop in crude oil prices between 2014 and 2016, showed significant adverse consequences on the Nigeria economy. Given Nigeria's dependence on crude oil revenues for close to 86 per cent of the foreign exchange earnings and over 60 per cent of government expenditure, the drop in oil prices led to heightened inflationary pressures, depreciation of the exchange rate, significant drop in the external reserves, and eventually, a recession set in during the second quarter of 2016 (Financial Inclusion Newsletter, 2017).

The fall in oil prices exposed the unsustainable economic growth model of the Nigerian economy. The effect of oil on the Nigerian economy cannot be overemphasised as the effect was clear when oil price dropped thereby reducing its share in the GDP. GDP growth therefore fell from 6.3% in 2014 to 2.11% in 2015 and had further fallen to -1.58% in 2016. The table below shows the GDP growth rate for 2014 to 2016

Table 2: GDP growth rate from 2014 to 2016

Year	GDP growth rate
2014	6.3%
2015	2.11%
2016	-1.58%

(**Source:** CBN half year report, 2018)

The fall in the GDP growth rate to a negative level brought the country into recession in the second quarter of 2016. Consequently, monetary policy instruments were deployed in 2016-2018 to promote the establishment of a stable and competitive exchange rate, build external reserves, ensure the maintenance of a sound financial system and improve credit availability to the private sector (CBN, 2018). In April, 2017, President Muhammadu Buhari launched the Economic Recovery & Growth Plan (ERGP) as a fiscal policy option for the nation. It is one of the medium-term plan (2017-2020) to achieve economic growth and development in Nigeria.

Targets of implementing the ERGP

The ERGP has three main strategic objectives; to restore economic growth, investing in people, and building a globally competitive economy (Financial Inclusion Newsletter, 2017). Restoring growth is linked to the other two strategic objectives but is specifically deemed to involve two main dimensions: macro-economic stability and economic diversification. Macro-economic stability is needed to create and sustain the right environment and the ERGP believes it will be achieved through the fiscal stimulation of the economy, achieving monetary stability and improving external balance of trade. Economic diversification on the other hand largely focused on promoting the non-oil productive sector, particularly agriculture, energy and MSME-led growth in industry.

Investing in people which is the second strategic objective, mainly focused on the implementation of social investment programme, job creation and youth empowerment programme along with improved investments in health, education and infrastructure. The third strategic objective generally involved the improvement on the ease of doing business in the country in order to attract foreign direct investment and international competitiveness.

To achieve the objectives set out in the ERGP, specific targets were developed. GDP was projected to grow by an average of 4.62% between 2017 and 2020, reaching 7% by 2020, also to attain the growth objective as well as to ensure sustainability, diversification, job creation and social equity. The following table shows the anticipated results of the successful implementation of the ERGP:

Table 3: The anticipated results in the successful implementation of the ERGP

Anticipated results	Anticipated growth rate
Increased real GDP growth	-1.54% to 7%
Reduced inflation	18.55% to 9.90%
Reduced unemployment rate	14.20% to 11.23%

(**Source:** Financial Inclusion Newsletter, 2017).

In order to kick start the implementation of the ERGP, the National Assembly passed two bills; Collateral Registry Act, 2017 and Credit Reporting Act, 2017 (Vanguard Nigeria, 2017). These bills were signed into law by Professor Yemi Osinbajo who was then the Acting President of Nigeria. The purpose of the bills was to ease the challenges faced by Nigerians to access affordable credit and promote a favorable business environment. The Collateral Registry Act, 2017 seeks to address the major obstacle of accessing Micro Small Medium Enterprises by allowing the citizens to register their movable assets in the National Collateral Registry and use the same as collateral for loan acquisition. While the Credit Reporting Act, 2017 provides the platform for credit information sharing between Credit Bureaus and lenders, enabling the lenders to make viable decisions on whether or not to extend credit to individuals. Together, these two Acts were supposed to drive growth of the private sector development by facilitating the achievement of the goals of Presidential Enabling Business Environment Council (PEBEC) (Otinche, 2018).

In view of the implementation of the ERGP, the Central Bank of Nigeria (CBN) increased the development finance interventions in order to catalyze growth in critical sectors of the economy. This objective was driven by the need to increase investments by MSMEs as well as spur consumer spending, as these factors would have a positive impact on GDP growth and employment. Furthermore, the development finance effort was driven by the need to reduce the country's reliance on revenues from crude oil (Emefiele, 2019).

One important aspect in implementing the ERGP was increasing the focus on Micro, Small and Medium Scale Enterprises (MSMEs), given their central role in employment generation and economic growth (Eke, 2017). The role of the MSME's on the Nigeria economy especially during the recession cannot be overestimated. The next section emphasized on the impact of the implementation of the ERGP

6. The impacts of the implementation of the ERGP on the economic development of Nigeria

Flowing from the above, the adoption and implementation of the ERGP in 2017 was able to diversify the economy by focusing on the MSMEs. This also led the rise of the GDP to positive. The table below shows GDP growth rate before and after the adoption of the ERGP up to 2019

Table 4: GDP Growth Rate for 2016 to 2019

Year	GDP growth rate
2016	-1.58%
2017	2.79%
2018	0.82%
2019	1.93%

(**Source:** Center for Democracy and Development, 2019).

The table shows that the implementation of the ERGP helped to bring the country out from recession by raising the GDP level from negative to positive in 2017. One major strategy of the ERGP was paying more attention on the private sector by investing on Micro Small and Medium-sized Enterprises (MSMEs). This sector contributed immensely to reviving the economy back from recession. However, the growth rates turned positive but have been lower than the stated targets to increase GDP growth rate, reduce inflation and reduction of unemployment rate. As unemployment rate keeps declining while inflation rate keeps rising (CEIC data, 2020). The inability of this single policy to tackle all the issues in perspective can rightly be said to be linked to the factors explained by Kazeem (2017) in the previous section of this study. It can therefore be argued that of the five reasons given by Kazeem (2017), only one of those factors (that is the development of the Micro, Small, and Medium Enterprises (MSMEs) sector) were tackled by the implementation of the ERGP and the result was positive on the Nigeria economy.

The ERGP was therefore able to achieve a fluctuation growth in the GDP, but was not able to tackle the issues of unemployment and inflation. The point here is that even if the target of the ERGP has not been fully met, the implementation of the ERGP was able to bring a positive growth in the country's economy within a space of one year (2017).

7. Conclusion

The ERGP was a strategic context for the government's fiscal policy towards economic development, it was rightly focused on the right objectives with respect to growth, revenue, output and employment. The implementation of the ERGP

directed fiscal policies to encapsulate the main challenges of the country, ranging from economic recovery and growth (GDP), economic diversification and creation of more employment opportunities. The major focus was the development of the MSMEs to bring about economic development in the country and also lead the country out from recession. The implementation of the ERGP was able to contribute to economic development as it moved the GDP from negative to positive. However, the set targets were not completely met but there was a positive movement.

The paper concludes that the ERGP was a major tool in bringing our economy out from recession within the space of one year because the policy was implemented. It therefore means that when policies are implemented it brings about development as it was proven in the implementation of the Federal Government's fiscal policy (the ERGP). However, it might not tackle all the problems, but can have a positive impact. It can therefore be said that fiscal policies can bring about economic development if properly implemented. On the other hand, a policy can only be proven to be ineffective also when it is implemented. Based on this, this paper made the following recommendations:

8. Recommendations

It was observed earlier in this study that policy making is taken more seriously than policy implementation.

However, this study argued and proved that it is by implementing policies that economic development can be achieved. The issue of policy implementation should therefore be taken more seriously by government just as policy making is a serious business.

In addition to the above, renewed efforts should be made to tackle the challenges highlighted by Kazeem (2017) to ensure total economic development in the country. The government can start by strengthening the MSMEs to partake in businesses that will boost the country's economy. Since the oil sector is already unstable and Nigeria can do little or nothing about international oil prices. Focus should therefore be on how to increase production and local processing as this can contribute to both economic growth and development.

Finally, it was observed that the implementation of the ERGP was able to add positive change to the Nigerian economy, the ERGP should therefore be revised and extended for more years in order to establish robust institutional arrangements for implementation, monitoring and evaluation.

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An Assessment of the Effect of External Debt on Sustainable Infrastructural Development in Nigeria

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Abstract. Sustainable investment in infrastructure requires a huge financial outlay. Resources scarce countries borrow to bridge their resource gap in order for them to develop their infrastructure. Thus, public borrowing provides a reliable way to finance government spending where available resources are insufficient. Nigeria is an experienced borrower from multilateral, bilateral, and private lenders in a bid to fill its infrastructural gap. As of 2021, Nigeria's external debt stood at US$39.5 billion. Despite the loans contracted over the years, there is an observed gap between her accumulated external debt and the level of infrastructural development available to the citizens. The study, therefore, investigated the effect of external debt on sustainable infrastructural development in Nigeria. The study employed a mixed-methods design. For the purpose of credibility and validity of the findings, the triangulation technique was adopted. The population of the study was 532, drawn from Public Debt Management=142, Fiscal Responsibility Commission=110, and Central Bank of Nigeria=280. The sample size of the study was 228 using the Taro Yamane sample size determination formula. The study employed structured questionnaires and interviews as its data collection instruments. The questionnaire and interview schedule were subjected to a validation process of face and content validity. A pilot study was conducted involving 10% of the respondents who were randomly selected from the Ogun and Kwara states' ministry of finance to determine the instruments' reliability. The Cronbach's Alpha values 0.758 and 0.842 were obtained and which indicated a high level of internal consistency of the scales. Data analysis was carried out with the aid of Inferential statistics and content analysis. The study found that external debt had no significant effect on sustainable infrastructural development in Nigeria ($\beta = 0.002$, $t_{(}198) = 0.040$, $p > 0.05$. The study concluded that external debt had no significant effect on sustainable infrastructural development in Nigeria. The paper recommended that the National Assembly and the Federal Ministry of Finance should ensure that external loans are tied to specific projects.

Keywords: External debt, Sustainable infrastructure, Gross domestic product, Productive investment.

1. Introduction

Sustainable investment in infrastructure requires a huge financial outlay. Resources scarce countries borrow to bridge their resource gap in order for them to develop their infrastructure. Thus, public borrowing provides a reliable way to finance government spending where available resources are insufficient.

Governments across the world need huge financial resources to meet these obligations. This includes the provision of public goods that improve citizens' overall quality of life. The provision of quality public infrastructural facilities offers an avenue for citizens to create wealth and contribute meaningfully to economic prosperity. This is the first and most important step in achieving sustainable development goals. The government also has obligation to sustain the development created by the citizen as a result of their entrepreneurship through appropriate legislation to regulate socio-economic activities.

Since the outbreak of the coronavirus pandemic in 2020, the world has witnessed phenomenal growth in global public debt. This surge was a result of the economic recession induced by the pandemic which forced governments around the world to provide unprecedented bailouts to private sector industries. Developed economies such as Japan, the US, Germany, and the UK all ran deficit budgets in a bid

to spend their ways out of the recession caused by the global pandemic.

Predictably, Africa was not excepted from the surge. According to a world bank data, public debt across the continent grew from US$350billion in 2010 to US$702 billion in 2021. Countries across Africa sub region spent almost 20% of their income on debt service despite the raging public health emergency and the attendant economic recession (IMF, 2020) Increasing public debt levels have grave consequence for debt service cost. Three key drivers are responsible for this upsurge in debt level across Africa. This includes: the frequent devaluation of the local currency against globally traded currencies like US Dollar, Euro and others, growing interest costs, and increasing deficit financing. Strong economic performance in some of these countries in the last decades has helped to slow down the noticeable upward trend in the debt-to-GDP ratio, but the overall growth in public debt has been much evident due to mounting interest payments. According to a world bank survey, most African countries suffer from insufficient infrastructures such as poor road networks, unstable electricity, insufficient transportation network, to name a few. Nigeria, Angola and Ghana are somewhat responsible for the high incidence of debt-to-GDP levels across the continent (Sow, 2018).

According to Ojekunle (2021) Nigeria's public debt reduced significantly between 1999 to 2007 due to the Paris Club's debt cancellation in 2005, Nigeria has rapidly amassed over US$39.7 billion as of December 31st, 2021.
While increase in public borrowing enables the government to have access to extra resources, Nigerians are generally worried about the level of public debt vis-a-vis the level of infrastructural development in the country.
In view of the widening gap in the loan taken and the available public infrastructure in Nigeria, the objective of the paper is to measures the effect of external debt on sustainable infrastructural development in Nigeria between 2011 and 2021.

2. Literature Review and Hypothesis Formulation

2.1 Conceptual Clarification:

2.1.1 External Debt

The sources of external debt may be bilateral, multilateral, or commercial lending institutions. This includes debts owed to international or foreign nations (Arnone & Presbitero, 2005). The government borrows from sources external to the country when internal funding sources are not enough to meet its funding requirement. Gbosi (2015) described external borrowing as when a sovereign entity obtains a loan from resources external to its sovereign control. The overall intention may be to invest in programs that can improve the quality of life of its citizenry. Tom-Ekine & Nnadede (2012), submitted that the provision of socio-economic necessities to the citizens of a country often leads to external borrowing when there is a shortfall in the internal resources. These necessities may include the provision of good roads, health facilities, and education.

Furthermore, an external borrowing scenario occurs when a sovereign borrows in another country's currency from a non-resident creditor. Todaro and Smith (2011) suggested that foreign debt is the sum of a country's total indebtedness to outside sources notwithstanding the classification of such debt. Ajie, Akekere & Ewubare (2007), conceptually clarified that external debt is the unpaid share of external resources obtained to finance development projects and matured current account deficit. Simply put, external debt is a country's debt to countries and institutions outside its monetary system, that is, to outside creditors. Overtime, such debt will constitute a huge drain on national resources due to interest and principal repayment.

External resource is used to fast-track development pace beyond what the available resources can finance at a given time. Some critical national assets such as the Kainji Dam, and others were financed with loan proceeds. Umo (2012) advocated that debt accumulation process enhances public sector capital formation. Borrowing hugely enhances capital investment which in turn fast track the development of the economy and sets it on the path to sustainable infrastructural development through the multiplication of wealth. For example, the Lagos' third mainland bridge was constructed with a £10 million loan. This subsequently opened up one of the most viable sub national economies in West Africa. Thus, external borrowing has the potential to accelerate the development of infrastructure or hurt the country's economy. This depends on the utilization of the loan proceeds.

Historically, Nigeria has a rich experience in the external debt market. This is because foreign loan is part of her colonial past. It was documented that Nigeria took a $28 million loan from the Italian government in 1958 to finance the construction of a

rail line. Foreign debt was however kept nominally low in the years that followed political independence. This period span 1960 to 1977. Reason for this can be attributed to the oil boom of the period. This is partly because of the oil revenue surplus and the fact that debts were generally obtained during this period from bilateral/multilateral sources that has longer maturity of at least 10 years period and much lower interest rate. In addition, debt servicing was not an issue because of the booming oil revenue. Conversely, sustained fall in the prices of oil and other commodities in the global oil market in 1978 and beyond forced the government to turn to foreign loans to finance capital projects.

Growth in public expenditures, expensive borrowing at non-concessional rates, reduction in oil receipts, the incidence of trade arrears was identified as factors responsible for the astronomical growth in external borrowing (Gbosi, 2015). The problem of external debt was also caused by the fact that Nigeria contracted some loans that were project-tied without comprehensive consideration for their long-term economic benefit. Moreover, some of these loans had short maturity periods and were obtained mostly from private sources to finance projects with long maturation periods. As such, there was a matching problem from the inception of the project. Matching loan maturity and repayment source is very importance in public finance. This is essentially critical in order to avoid putting too much pressure on the fiscal system.

The loan defaults of the 1980s and the 1990s culminated in a globally coordinated debt relief that was granted by the creditors at the beginning of this century to poor countries. This largess was necessary because it was impossible to fund new public investment in public infrastructure at the time. Tom-Ekine (2014) attributed the poor investment and lack of development during this period to the extreme indebtedness of poor countries such as Nigeria to their heavy external debt burden. The fact that enormous resources were devoted to servicing these debts in order to avoid a default scenario with its devastating consequence for the economic prosperity of the defaulting nation and credibility in the international debt market. Therefore, Nigeria like any other sovereign entity has a sacrosanct responsibility to manage its external debt portfolio in a cautious and efficient manner.

Over the past decades, Nigeria has adopted several internationally recommended public debt management strategies in order to cut her external debt burden with a view to achieving sustainable infrastructural development. These approaches include debt rescheduling, debt conversion or liquidation management, embargo or limitation on new loans. Literature revealed that despite these strategies. The intended result or goal has not been achieved. This is because foreign debt has continued its upward trend since independence. Ekperiware & Oladeji (2012) lamented that decades after the debt reprieve, key sectors of the Nigerian economy like power, education, and health are supposed to show the benefits of the debt cancellation. Buttressing this point, some studies have found no commensurate connection between debt relief and sustainable economic development. Despite the whooping debt forgiveness from Paris Club, the hope of rapid infrastructural development remains a mirage about twenty years later.

By the same token, Ayodele (2012) noted that in spite of the 2005 debt forgiveness from the Paris club of creditors, Nigeria's debt has quickly grown to a staggering sum of $95.7 billion which comprises US$38.3bllion and US$57.3billion respectively. Nigeria's external debt was $10.32 billion as of June 2015, but by December 2021, it had strangely grown to US$39.7 billion. Nigeria has been on a borrowing binge since 2015. In 2021 alone, Nigeria grew its debt burden by over US$5 billion. The implication is that resources that could have been used to build sustainable infrastructures are needlessly diverted to service external loans.

The researcher believed that increase in external loan stock should lead to increase in industrialization because development projects are financed at a faster rate, social and economic facilities such as health, education, transportation, communications, electricity, sanitation and water supply, and many more should improve because of the additional resources. (Ajudua & Davis, 2015). Governments around the world take external loans to improve the living standard of their citizens through investment of capital on ventures that can fast track sustainable development of their economies. Thereby enabling individual citizens to create wealth. External debt usually takes the form of a 'tied loan', which means the funds secured through the loan must be spent in the nation that is providing the loan by way of paying for the material and technical resources needed for the project and must be tied to a specific project in the borrowing country.

For instance, resources for such projects are usually bought from the country that provides the loan. Reasons for this may not be unconnected with the need for monitoring, evaluation, accountability and transparency in the loan disbursement and utilisation.

Tied loans, like the Chinese loans under the birth and road initiative (BRI), are always for specific purposes which are usually jointly defined by the borrowing and the lending nations. Chinese loans and loans from other bilateral institutions have been used to finance different projects across Nigeria. Although scholars believe that justifiable public borrowing is good for the economy and helps to sustain economic development. Nigeria's experience is however uniquely different because of the inverse relationship between the level of public borrowing and the appalling infrastructural gap in the country (Adetunji, 2017). Nigeria's external debt as of December 31st, 2021 according to the debt management data was US$38.3 billion (DMO, 2021). Breakdown of Nigeria's external debt is presented below:
However, when the volume of external borrowing outgrows public revenue, it will undermine the economy and defeat the aims of the borrowing or the anticipated benefit. As a result, external loans need to be prudently contracted and thoughtfully utilised.

2.1.2 Sustainable Infrastructural Development

Infrastructure is a critical key driver for achieving sustainable development vision 2030 is considerably dependent on the development of sustainable infrastructures, such as public investment in public projects such as air transport, power stations, public schools, gas pipeline, hospitals, rail networks, bridges and roads and others (Udeh, Ugwu & Onwuka, 2016). Nkechi & Onuora (2018) postulated that the infrastructure of a country involves the reasonably permanent and foundation capital investment of a country and private firms enable its economic activities.
These include electricity, transportation, telecommunication, and other amenities necessary for the orderly administration of the state. Methodical borrowing enables the economy to grow at a faster rate because it allows the state to access extra resources and thereby creates an enabling environment for sustainable economic development. This is perhaps the most important role of government in creating sustainable infrastructural development. Citizens' living conditions are improved when an enabling environment is created through the provision of necessary infrastructure in an economy.

A well-utilized external borrowing increases productive investment in the infrastructure of a state. This has both short- and long-term effects. The direct implication is that it increases the internally generated revenues of a state because it stimulates economic activities whose impact is felt in the short run via improvement in the revenue of the state. The development of sustainable infrastructure is very crucial to the continued health of an economy. Akpan & Nwanseh (2013) asserted that infrastructure is the vital oil that propels the wheel of development of a country's economy. Consequently, there can be no development without the availability of a certain level of public infrastructure.

These Infrastructures include good road networks, access bridges, stable electricity supply, and others. Hence, sufficient revenue generation and collection are vital to the provision of sufficient and sustainable public infrastructural development (Nkechi &Onuora, 2018). However, for developing countries, external debt poses major challenges, particularly in the context of fluctuating foreign exchange rate regimes to the provision of adequate public infrastructure (Uguru, 2016). This is because the maintenance and servicing of external debts ultimately require sufficient income to be able to honour matured obligations -interest and the principal. Emphasizing the need for sustainable infrastructure is not enough. Such emphasis must be accompanied by the availability of sufficient revenue. Due to the huge financial outlay required, a considerable amount of time is needed to plan and execute them. Government projects are either financed via externally generated or internally generated revenue.
The external source of revenue to the government includes grants and aids, individual corporate donations, public borrowing (domestic and Foreign) e,tc. During the oil boom, the Nigerian government depended exclusively on revenue generated from oil sales to solve most of its fiscal needs. This reliance on oil revenue changed with the instability experienced in commodities prices starting from the late 1970s to date.

2.2 Theoretical Framework

2.2.1 Debt Overhang Theory

The theory gained global popularity following the work by Krugman (1988) even though debt overhang theory was first propounded in 1977 by Stewart Meyer. The theory states that when an entity's debt is too large, a time will come when such entity will not be able to take on new debt to fund new project. Debt overhang reveals a state of affairs in which a country's debt becomes disproportionately huge beyond what the country can repay (Burhanudin, Muda, Nathan, & Arshad, (2017). Debt overhang theory is widely applied to the understanding of public debt and its implication for an economy. It implies that uncontrolled borrowings

lead to high public debt and can compromise the ability of the economy to generate enough resources for its repayment. Its relevance to this study lies in its ability to show the danger of growing external public debt at the expense of the overall health of the Nigerian economy. Krugman (1988) argued that if the possibility exists that the public debt of a country will be larger than what the country can repay, the cost of servicing the debt will slow down investment regardless of if it is foreign or local. This is because it will discourage investors due to the fact that high public debt burden ordinarily attracts higher tax bills from the government to honour their repayment obligation, and thus, high debt incidence discourages investment in an economy in the long term.

2.3 Research Hypothesis

Ho1: External debt has no significant effect on sustainable infrastructural development in Nigeria.

2.4 Research Method

This study adopted a mixed-method research design to strengthen and expand the study's conclusions thereby addressing the research objective.

3. Result and Discussion

The population of the study comprised employees from the Debt Management Office, Central Bank of Nigeria and Fiscal Revenue Commission with a numerical population of 532. The justification for these two agencies of government was because they have primary responsibility for managing Nigeria's external debt. Specifically, The CBN has a population of 280, DMO has population size of 142 while FRC was 110 respectively.

Sample size was determined using Taro Yamane (1967). The sample size was 228. The paper adopted multistage random sampling technique to access senior employees from these agencies. Structured questionnaire was self-developed and validated. Interview was used to support the survey method. Cronbach's Alpha reliability coefficient range from 0.758to 0.842. The response rate of 90.9% was achieved. Data were analyzed through inferential statistics and content analysis.
Research objective One: the effect of external debt on sustainable infrastructural development in Nigeria.

The quantitative analysis of the data and interpretation of the respondents' responses to the question on the effect of external debt on sustainable infrastructural development in Nigeria is presented below.

Statements	**SA**	**A**	**U**	**D**	**SD**	**Mean**	**Remark**
	5	4	3	2	1	STD	
Loans will solve future infrastructural problems	15	14	25	79	67	2.16	Disagree
	7.5	7.0	12.5	39.5	33.5	1.182	
The benefit of external debt to the citizens is more than the burden of repayment	2	48	13	52	85	2.15	Disagree
	1.0	24.0	6.5	26.0	42.5	1.235	
External debt have improved the quality of life	19	34	37	49	61	2.51	Undecided
	9.5	17.0	18.5	24.5	30.5	1.334	
External loans have helped fast track the pace of investment in public infrastructure	6	55	29	45	65	2.46	Disagree
	3.0	27.5	14.5	22.5	32.5	1.279	
Loans have improved infrastructure	19	50	31	25	75	2.57	Undecided
	9.5	25.0	15.5	12.5	37.5	1.441	
Borrowed money solves the problems of infrastructure	22	46	7	61	64	2.51	Undecided
	11.0	23.0	3.5	30.5	32.0	1.421	
Loans achieve the purpose of creating meaningful jobs	18	48	49	44	41	2.79	Undecided
	9.0	24.0	24.5	22.0	20.5	1.266	
Needed resources for other sector is not affected by ongoing borrowings	22	41	8	49	80	2.38	Disagree
	11.0	20.5	4.0	24.5	40.0	1.455	

Source: *Field Survey Results, 2021*

Table 1.0 shows the effect of external debt on sustainable infrastructural development in Nigeria. It was revealed that 7.5% of the respondents strongly agreed that Loans will solve future infrastructural problems, 7.0% of the respondents agreed, 12.5% were undecided, 39.5% of the respondents disagreed and 33.5% of the respondents strongly disagreed. On average, the respondents disagreed that external loans

will solve future infrastructural problems (Mean = 2.16, STD = 1.182). Further, 1.0% of the respondents strongly agreed that the benefit of loans to the citizens is more than the burden of repayment, 24.0% of the respondents agreed, 6.5% were undecided, 26.0% of the respondents disagreed and 42.5% of the respondents strongly disagreed. On average the respondents disagreed that the benefit of loans to the citizens is more than the burden of repayment (Mean = 2.15, STD = 1.235). In addition, 9.5% of the respondents strongly agreed that Loans have improved the public infrastructure, 17.0% of the respondents agreed, 18.5% were undecided, 24.5% disagreed and 30.5% strongly disagreed. On average the respondents were undecided that Loans have improved public infrastructure (Mean = 2.51, STD = 1.334). The table reveals further, that 3.0% of the respondents strongly agreed that public loans have helped fast track the pace of investment in public infrastructure, 27.5% of the respondents agreed, 14.5% were undecided, 22.5% of the respondents disagreed and 32.5% of the respondents strongly disagreed.

On average the respondents disagreed that public loans have helped fast track the pace of investment in public infrastructure (Mean = 2.46, STD = 1.279). Also, 9.5% of the respondents strongly agreed l Loans have increased revenue, 25.0% of the respondents agreed, 15.5% were undecided, 12.5% of the respondents disagreed and 37.5% of the respondents strongly disagreed. On average the respondents were undecided that Loans have increased revenue (Mean = 2.57, STD = 1.441). From the analysis, 11.0% of the respondents strongly agreed that borrowing money solves the problems of social amenities, 23.0% of the respondents agreed, 3.5% were undecided, 30.5% of the respondents disagreed while 32.0% of the respondents strongly disagreed. On average, the respondents were undecided whether borrowed money solves the problems of infrastructure (Mean = 2.51, STD = 1.421). In addition, 9.0% of the respondents strongly agreed Loans achieve the purpose of creating meaningful jobs, 24.0% of the respondents agreed, 24.5% undecided, 22.0% disagree, 20.5% strongly disagree.

On average the respondents were undecided whether external loans achieve the purpose of creating meaningful jobs (Mean = 2.79, STD = 1.266). The findings revealed further that 11.0% of the respondents strongly agreed that Needed resources for other sectors are not affected by ongoing borrowings, 20.5% of the respondents agreed, 4.0% were undecided, 24.5% disagreed and 40.0% strongly disagreed. On average the respondents were undecided that needed resources for other sectors are not affected by ongoing borrowings (Mean = 2.38, STD = 1.455).

The interviewees chorused that “external debt is a “curse on Nigeria”, “a big problem”, “will sink Nigeria” and so on. Some interviewees explained that “external debt has not contributed positively to infrastructural development in Nigeria. They further stated that the claims that it has helped in building physical infrastructure is not true” The money borrowed is not a gift; it is a loan that must be paid back with exorbitant interest. Unfortunately, the money spent on repaying the loan in some instances is more than the actual money borrowed. Another interviewee quarried why we continue borrowing. In support of this argument, three of the interviewees countered that note that Nigeria’s growing external debt makes no sense. When considered against “the huge infrastructural gap and the accumulated debt”, the government’s assertion that Nigeria needs to continue borrowing to develop its infrastructures will eventually lead the country to a debt crisis like what she suffered back in late 1980s and late 1990s.

In an interview, Sherifdeen (2022) argued that since the resources raised through tax and other sources are not utilised properly, it is difficult for the government to suddenly master how to utilise loan properly. Despite the claims by the government that borrowed resources have improved its public infrastructures, this claim is far from realities as public data tells a different shocking story of dilapidation and despair in public infrastructures. In fact, excessive borrowing has restricted economic growth and become the biggest drawback for the economy.

Another interviewee lamented that the government’s claim that it borrows to accelerate the pace of investment in public infrastructure and to enhance the quality or standard of life of the citizens is weak and unconscionable. The actual reason behind government’s borrowing is because of the insatiable appetite of the political elite. They prefer personal aggrandizement to the development of basic infrastructures that can engender a sustainable growth in economic prosperity and development of the country and the quality of life of the citizens. Another interviewee declared that ultimate beneficiary of Nigeria’s external debt is somehow connected to the individuals in government.

Majority of the interviewees cited the deplorable state of roads in Nigeria as the main reason for their conclusion that external debt has no commensurate

relationship with sustainable infrastructural development in Nigeria.

Findings from the analysis of the quantitative data and findings from the interview point out that external debt has no significant sustainable infrastructural development in Nigeria. The results of the descriptive analysis of the quantitative data on the effect of external debt on sustainable infrastructural development in Nigeria showed that the mean value for the responses on the rationale for external loan contracting in Nigeria ranges from 2.15 to 2.79. Also, it was observed that about half of the responses were undecided and about the same half believed that external debt affects sustainable infrastructural development in Nigeria. The standard deviation ranges from 1.182 to 1.445 indicating a huge difference in how they responded.

The findings from the interview section support these findings. Interviewees believed that infrastructural facilities built with loans proceeds may have been used to target growth in economic activities in some sectors, however, the possibility that such activities lead to more jobs and creates enough income to pay back in the foreseeable future is absent. Overall, the findings showed that external debt has no significant effect on sustainable infrastructure development. This finding provides an answer to research question four.

Restatement of the Hypothesis

H01: external debt has no significant effect on sustainable infrastructural development in Nigeria. Hypothesis one was tested using simple regression analysis. Data for external debt and sustainable infrastructural development was used in the analysis. The results of the analysis are presented in Table 1.1:

Variables	**B**	**T**	**Sig**	**R**	**R2**	**Std. Error of the Estimate**
Constant	23.867	16.104	.000	.003a	.000	3.8111
External debt	.002	0.040	.968			
a. Dependent Variable: sustainable infrastructural development			F (1,199) = .002			

Source: *Researcher's Field Results (2021)*

The result revealed that ($\beta = 0.002$, $t(198) = 0.040$, $p > 0.05$). The slope coefficient was .003. It represents the strength, amount of change and direction of the relationship between external debt on sustainable infrastructural development in Nigeria. The correlation coefficient reveals that there is no relationship between external debt and sustainable infrastructural development in Nigeria. The findings indicated that external debt does not affect sustainable infrastructural development in Nigeria. Hence, external debt has no significant effect on sustainable infrastructural development in Nigeria. Thus, consideration should be given to any other way of building infrastructure.

Furthermore, the result indicated that external debt explains 0.0% of the variations that occur in sustainable infrastructural development in Nigeria. ($R2 = 0.000$). The result revealed that the model was statistically not significant. This was supported by the F (1,199) statistics of .002 and the reported p-value (0.968) which is less than the conventional probability of 0.05 significance level ($t(198) = 0.040$, $p = 0.968$). This shows that the p-value for the analysis was reported to be more than the alpha benchmark of 0.05 thus implying that the analysis is not statistically significant. On that basis, null hypothesis two is accepted and we conclude that external debt has no significant effect on sustainable infrastructural development in Nigeria.

These findings yielded an optimal regression model for statistically significant construct shown below:

SID = 23.867 + 0.002SLC……...……. ……. eq. 5.2

Where:

ED = External Debt

SID = Sustainable Infrastructural Development

The model, shown above indicated a constant parameter value of 23.867, which implied that external debt when at constant zero, sustainable infrastructural development in Nigeria would be 23.867 which is positive. Furthermore, the results revealed that unit change in external debt would lead to 0.002 change or increase in sustainable infrastructural development. The results revealed that external loan contracting has no significant effects on sustainable infrastructural development in Nigeria. Based on the F statistics and coefficient of determination with a p-value more than the

conventional probability of 0.05, the null hypothesis (H01) was hereby accepted.

4. Discussion of Finding

Findings on this objective indicated that the items on the effect of external debt on sustainable infrastructural development had no significant effect on sustainable infrastructural development in Nigeria. The finding supports the work of Calderon & Serven (2010) cited in a 2020 World Bank report that concluded that public infrastructure networks remain poor in Sub-Saharan Africa despite huge external debt allegedly incurred to improve them. Ajakaiye & Ncube (2010) asserted further the presence of a wide gap in infrastructure provision, especially in Nigeria where public officials characteristically borrow to finance public infrastructure. An Africa development bank survey of public infrastructure index in 2015 ranked Nigeria's infrastructure 23rd in Africa out of the 53 African countries surveyed. However, the 2020 edition of the survey showed that Nigeria had receded to the 24th position from where it was in 2015. Nigeria's external debt has risen from $10.7 billion in 2015 to $38.3billion in 2021.

The researcher agrees with this empirical reality bearing in mind the deplorable state of electricity supply, road network, and nonexistence water and sanitation system in Nigeria, this period, however, has seen one of the most dramatic rises in both domestic and external debt in Nigeria debt without commensurate effect on sustainable public infrastructure. The findings of the study agree with Ifeanyi and Earnest (2016) and Ndubuaku, Uche, Onwuka, & Ifeanyi (2021) conclusions that external debt has not made a positive contribution to Nigeria's sustainable physical infrastructure.

Therefore, Nigeria's mounting external debt profile since 2011 is unjustifiable, irresponsible and uncalled for. Ugwu and Nzewi (2016) cautioned that foreign loans should only be embarked on when it is inevitable and the proceeds should be invested in productive economic activities and not fund consumption. As a result, the productive economic benefits of the loan will be more than the cost of servicing the debt which will ultimately bring sustainable infrastructural development. The N27.2billion accumulated by the Nigerian government between 2015 to 2021 did not show any important yield in terms of improvement in the country's infrastructures nor the much desired fiscal and monetary market stability.

Furthermore, Ogunmuyiwa (2011) corroborated the finding of the study by noting that the relationship between external debt and economic development in Nigeria could not be proven because there is no significant relationship between the two variables. However, the study disagreed with findings from previous studies that either state that a positive or not so negative relationship exists between foreign debt and economic development. These scholars include Ahmed and Shakur (2011), Ezeabasili, Isu, & Mojekwu (2011), Oyovwi, & Eshenake (2013).

Theoretically, the finding of this study supports the submission of the Debt Overhang Theory. Based on the proposition that sooner a country's current borrowing rate if not checked may exceed her ability to repay. It, therefore, follows that a sovereign country that finds it difficult to service her loan may attract negative perceptions that defaulting countries face. Trust is an important aspect of lending and a country that defaults might find its future access to credit constricted. It could also find its assets in foreign countries seized. There is also a present danger this unrestricted borrowing may cause Nigeria. Every possibility points directly that continuous borrowing may threaten present direct investment into Nigeria. Investors will be discouraged on the basis that the higher the public debt, the higher they will be taxed by the government to repay the public debt and thus they will be less willing to incur investment costs today for the sake of increasing future output.

The present study supports these propositions. Hence, this study revealed that external debt may be far injurious not only to sustainable infrastructural development but may endanger the future of the next generation's ability to pursue fresh loans when needed. As an alternative to frequent external borrowings from the international community any time the government needs to execute a capital-intensive project, such projects can be funded by increasing the country's export earnings capacity. Export earning capacity can be increased through deliberate and strategic export growth policy as well as aggressive investment in human capital development as an alternative to frequent external borrowing. This comes with huge cost implications for the economy such as long-term fiscal instability, and the slow pace of investment in public infrastructure arising from huge debt service costs.

5. Conclusion

In this paper, we have presented data on the effect of external debt on sustainable infrastructural

development in Nigeria. We analyzed the consequence of Nigeria's external debt on its infrastructural development. To drive home the objective of this study, we have complemented the quantitative data with the data obtained from the interview. We also showed that the citizens do not derive the expected benefits from the country's borrowing from external sources.

Based on the findings of the study, the study concluded that external debt has no significant effect on sustainable infrastructural development in Nigeria as the finding showed. This is because Nigerians are yet to experience the expected improvement in their quality of life as a result of the mounting external loan. The study further concluded that placing a moratorium on future external loans will enable Nigeria to fix its fiscal policy problems by harnessing its resources to fund its infrastructure needs internally.

6. Recommendation

The paper recommendation below is based on the findings of the paper:

The National Assembly and the Federal Ministry of Finance should ensure that external loans are tied to specific projects during the loan approval and post-approval period, periodic assessments should be jointly carried out to evaluate the level of work done and the fund disbursed. This will ensure that deficit financing is infrastructure tied. It will also ensure that external loans have the desired effect of sustainable infrastructure.

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Awareness of Engagement Strategies and Stakeholders' Responsiveness and Formulation of Corporate Social Responsibility Goals in the Fast Moving Consumer Goods Industry in Lagos and Ogun States, Nigeria

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Abstract. Formulating Corporate Social Responsibility (CSR) goals help organisations to align stakeholders' demands with organisations' goals. Effective engagement with stakeholders is a vital communication strategy that enhances the alignment of stakeholders' demands with organisational goals, like those of Fast Moving Consumer Goods (FMCG) industry. FMCG industry involves companies that supply low-cost products that are in constant high demand. One major factor that precipitate stakeholders' engagement with FMCG companies' CSR programmes is awareness of their engagement strategies. This determines the extent of the participation of stakeholders and ultimately impacts the formulation of CSR goals. However, the lack of awareness of these engagement strategies may undermine the formulation of FMCG companies' CSR goals. Consequently, this study investigated how awareness of engagement strategies and stakeholders' responsiveness (participation/contribution) informed the formulation of CSR goals of FMCG companies in Lagos and Ogun States, Nigeria. A total of 833 questionnaire were administered to employees of selected FMCG companies and residents of host communities. Mean and standard deviation were used in the analysis of data gathered. Results showed that employees were moderately aware of FMCG companies' CSR engagement strategies for formulation of CSR goals ($\bar{x}$ = 3.05, SD = 1.25). Host communities were also moderately aware ($\bar{x}$ = 2.86, SD = 0.90). Jointly, all stakeholders were moderately aware of FMCG companies' CSR engagement strategies ($\bar{x}$ = 2.97, SD = 1.10). Employees' responsiveness to CSR policy formulation was moderate ($\bar{x}$ = 2.85, SD = 1.04). Host communities' responsiveness was also moderate ($\bar{x}$ = 2.84, SD = 0.93). Jointly, stakeholders' responsiveness to CSR policy formulation was moderate ($\bar{x}$ = 2.84, SD = 0.99). However, responses from management staff of FMCG companies revealed that stakeholders were highly aware of the various engagement strategies and that Stakeholders' responsiveness was also high. The study concluded that stakeholders were not fully aware of engagement strategies for formulation of CSR goals while stakeholders' responsiveness to CSR policy formulation was also moderate. The study recommended that management of FMCG companies should intensify efforts to ensure full awareness of engagement strategies.

Keywords: CSR goals, Engagement strategies, FMCG Industry, Stakeholders, Stakeholders' responsiveness

1. Introduction

Corporate Social Responsibility (CSR) is a concept that deals with how companies manage their business processes to produce an overall positive effect on the society. Through CSR, organizations integrate social and environmental concerns in their business operations and their interaction with their stakeholders. Corporate Social Responsibility (CSR) has attracted a large amount of attention in research and practice, particularly in the context of stakeholder's engagement (Lindgreen & Swaen, 2010; Pedersen, 2010). Many organizations are concerned with satisfying the social responsibility expectations of their stakeholders, and therefore focus more on communicating their CSR policies and CSR activities to them. This has made CSR communication a vital issue in stakeholders' engagement and has helped in building and sustaining the legitimacy of an organization in the eyes of stakeholders. Dimitrova (2018) observed that Corporate Social Responsibility is a multidimensional construct that requires the transformation of the whole organization's visible and invisible structures. He noted that corporate

communication is a vital part of the management of stakeholder relations and the legitimate socially responsible reputation of the company. Podnar (2008) defined CSR communication as:
a process of anticipating stakeholders' expectations, the articulation of a CSR policy and the managing of various organizational communication tools designed to provide true and transparent information about a company's or a brand's integration of its business operations, social and environmental concerns, and interactions with stakeholders (p. 75).

Corporate Social Responsibility (CSR) initiatives have not only become expected but also highly scrutinized. Stakeholders, be it customers, employees, community members, NGOs, suppliers or investors, require companies to provide evidence of community courses they support and these stakeholders are looking for honest, authentic actions that have been carried out by such companies. This is why social responsibility is important; simple public relations actions are no longer accepted by savvy stakeholders (SustaiNet Software, 2017). Studies have shown that CSR has a positive influence on a firm's financial performance (Orlitzky, Schmidt, & Rynes, 2003), it builds brand equity (Hoeffler & Keller, 2002) and at the same time, foster competitive advantages (Porter & Kramer, 2002). One of the positive effects of CSR and its communication is that stakeholders will more likely be positively attracted to products or services provided by organizations that act socially responsible than to organizations that do not.

On the other hand, Public relation (PR) is a field concerned with maintaining public image for high-profile people, organizations and programs. It concerns the shaping of public messages through communication, community relations, crisis management, customer relations, employee relations, government affairs, industry relations, investor relations, media relations, mediation, publicity, speech-writing and visitor relations (Grunig & Hunt, 2014). The nexus between public relations and corporate social responsibility have not gone unnoticed in organizational studies. Wood, Dibben and Klerck (2011) declared that though businesses are driven by profit maximization, they embrace responsibility for the impact of their activities on the environment, consumers, employees, communities, stakeholders and all other members of the public sphere and also promote public interest by encouraging community growth and development, and voluntarily eliminate practices that harm the public sphere, regardless of legality. Saether & Aguilera (2008) noted that PR and CSR are dependent on each other as they both try to build firm's image in the market.

Globally, corporate social responsibility (CSR) has gained greater attention over the years. Many multinationals, including fast moving consumer goods (FMCGs) companies in industrialized nations have increasingly played leadership roles in improving socio-economic and environmental conditions in their host communities through engagements in CSR initiatives (Richardson-Cookie, 2019). This has led to an increasing emphasis on the inclusion of environmental responsibility as an integral component of businesses (Moyeen, 2018). The European Commission (2011) emphasized this point by stating that "to fully meet their corporate social responsibility, enterprises should have in place a process to integrate social, environmental, ethical, human rights and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders" (p.6). This implies that global adoption of CSR is developed on a legal basis and through voluntary initiatives at different levels. To be able to accomplish the onerous task of integrating social, environmental, ethical, human rights and consumer concerns into their businesses, public relations experts contend that stakeholders must be engaged strategically by companies if the aim of those activities is to be mutual; this has given rise to the idea of stakeholder engagement against the backdrop of increased empirical researches that consider environmental and other dimensions of CSR as part of a business' social responsibility (Cacioppe, Forster & Fox, 2007; Bahadur & Waqqas, 2013; Benites-Lazaro, & Mello-Théry, 2017), among others.

Stakeholder engagement can be defined as the process of involving and aligning stakeholders to a company's or project's objectives. It is the process by which companies communicate and familiarize with their stakeholders. By getting to know them, companies are able to better understand what they want, when they want it, how engaged they are and how the companies' plans and actions will affect their goals. The importance of engagement and alignment of the stakeholders' goal and vision to the project goal has been reflected in several literatures (Cooke–Davies, 2000, Christensen &Walker, 2003). The need for stakeholder engagement stems from the realization that they occupy a central position to the realization of an organization's goals. Stakeholders in this regard includes shareholders, employees, directors, customers and host communities, whose varying interest the organisation seeks to satisfy one way or the other through their operations. Alderman

and Ivory (2011) stated that the engagement of stakeholders is necessary from the strategic management perspective so as to know what the stakeholder actually needs. This is due to the understanding that different stakeholders have different values and view the organization in different ways. The purpose of engagement study is to identify and understand the diverse needs and expectations of stakeholders.

It is particularly important in the context of running an organisation responsibly and is integral to the concept of corporate social responsibility. It implies a willingness to listen; to discuss issues of interest to stakeholders of an organization (Youmatter, 2019; Jeffery, 2009). In the process of engaging stakeholders, managers are confronted with the challenging task of identifying stakeholders, understanding their concerns, in order to come up with CSR objectives that will produce satisfaction for both the organization and its stakeholders. Since CSR is about minimising negative and maximising positive environmental and social impacts, then stakeholder engagement is one of the core skills and key activities which enables this to happen successfully and effectively. When organisations do not engage stakeholders successfully, they can lose out. But when organisations engage successfully with their stakeholders it can be a win-win for both the organization and the stakeholders.

The various levels of engagement strategy that an organization can use to reach its Stakeholders are: Stakeholder mapping, preparation, engagement and action plan (BSR 2011). According to Jeffery (2009), engagement strategies that an organization can also adopt to achieve some measure of positive response from their stakeholders include: Building trust with stakeholders by understanding their view points before CSR objectives are formulated. Building trust is a crucial part of meaningful engagement resulting in information being shared both ways and communication becoming an enabler and not a barrier. The organization needs to consult with host communities and other stakeholders to give them a sense of belonging and enable them have a say in issues that concern them. The 'tone from the top' is also very important, the role that leaders of an organization play is fundamental in building meaningful engagement.

Eder (2020) highlighted ways an organization can ensure stakeholders are effectively engaged as follows: conducting a stakeholder analysis, ensuring engagement from leaders, presenting benefits for each stakeholder group, addressing concerns of areas of high impact and following up by keeping ongoing communication with all stakeholders. Mathur, Price and Austin (2008) viewed stakeholder engagement from three different perspectives – strategic management perspective where manager should know the important stakeholder's needs in order to build up a strategy to satisfy these needs. The second perspective, which has an ethical base, holds that stakeholders are citizens having a right to determine or at least influence the services and valuing the process of participation for democratic reasons. The third perspective views stakeholder engagement as dialogue, a social process that emphasizes the less tangible but beneficial elements such as reflection, understanding and learning. For emphasis, this study focuses on the third aspect of stakeholder engagement which has a way of involving all stakeholders in an organization's operations in a way as to deliver the benefits of all the three perspectives. The purpose of dialogue in stakeholder engagement is in two folds: to involve stakeholders by providing them opportunities to share their views and concerns directly with the organization and to improve the management and scope of activities carried out by the organization. To do this, an organization need to establish a two-way communication channels between itself and stakeholders in order to identify issues and to explain its actions, social impact or any other concerns in an open and transparent manner. (Du, Bhattacharya & Sen, 2010; Schlegelmilch & Pollach, 2005; Waddock & Goggins, 2011).

FMCG companies engage with various segments of stakeholders so as to harness their inputs towards the formulation of their CSR objectives. These stakeholders respond to these engagement strategies by contributing and participating in the CSR policy formulation. Stakeholders' responsiveness is therefore the process where stakeholders that can be affected by CSR project/activities come out to make their intentions or grievances known in order to facilitate inclusion or resolution (Hoeffler, Bloom & Keller, 2010). It usually follows a pre-set stakeholders' response mechanism, which enables them to jointly deliberate and resolve concern before CSR policies are formulated. It helps stakeholders start or restart dialogue, facilitate discussion, mediate disputes and enhance understanding of CSR projects. The involvement of stakeholders' responsive mechanism should continue as long as it is believed to be beneficial or until agreement is reached between an organization and its stakeholders (United Nations Development Programme, 2021). Hoeffler, Bloom and Keller (2010) noted that stakeholders go through four stages in their response to CSR initiatives: (1) awareness of the CSR objectives, (2) perception of the importance of the CSR initiatives,

(3) perception of the likely efficacy of the CSR initiatives, and (4) support of and engagement with the implementation team of the CSR initiatives. Active engagement has been identified as key ingredient to building long-term loyalty in relationships. Active engagement is defined in terms of a person's allocation of resources (for example - time, energy, money) toward an activity that extends beyond normal levels. In the context of CSR initiatives, it may involve donations, volunteering, reading and watching communications to learn more about a CSR initiative.

Studies have shown that CSR in Sub-Saharan Africa focus more on charity, donations and other forms of community involvement (Muthuri & Gilbert, 2011; Iwannanda, Sudarmiatin & Adiputra, 2017 & Uhlig, Mainardes & Nossa, 2019). In contrast, Amaeshi, Adegbite, Ogbechie, Idemudia, Seny-Kan, Issa and Anakwue (2016) found that CSR practice in Africa is beyond charity and in some cases involves institutional works aimed at addressing some institutional gaps in the location where SMEs operate. Also, Brammer, Jackson & Matten (2012) found that CSR in Sub-Saharan Africa is a broader mode of economic regulation involving the market, the government and other actors. Overall, the studies by Brammer, Jackson & Matten (2012) and Amaeshi et al (2016) provide insights into the nature and practices of CSR in Sub-Saharan Africa. They however did not investigate the engagement strategies and level of stakeholders' responsiveness to formulating CSR goals. This presents an obvious research gap in terms of CSR engagement strategies that FMCGs and other companies adopt, and the level of responsiveness they get from different stakeholders when formulating their CSR goals. Thus, there is a need to further explore the engagements strategies and stakeholders' responsiveness in formulating CSR goals in Africa.

In Nigeria, the lack of extensive social care and basic infrastructure is a well-known problem facing the country. The growth of the economy and businesses in Nigeria have equally stretched the country's infrastructure and the rapid economic growth and urbanization are challenging the internal balance in Nigeria, with the national government and local authorities often struggling to keep up with the rapid pace of change. In urban centres such as Lagos, Abuja, Port Harcourt, and Kano regular power cuts cost people and businesses time and money (Gabriel, 2014; Aliyu & Amadu,2017). The same is true for transportation, waste management and access to clean water. These are areas where private companies can come into the picture in Nigeria, by engaging in CSR programmes through stakeholder engagement. When organizations engage with stakeholders, their efforts in the area of CSR can make a great impact in their host communities and in Nigeria as whole. These private companies are able to help their stakeholders, host communities and the nation at large by having an insight into the basic amenities needed by the citizens when they engage them strategically. Oil companies, banking industries and telecommunication companies in Nigeria have engage in CSR practices that are related to healthcare, education, welfare, community development, disaster relief, empowerment programmes, promotion of sporting activities and environmental protection more as a publicity stunt or public image building for the organizations rather than through stakeholder engagement (Ismail, 2020). This calls to question the extent of stakeholder engagement, strategies employed and level of responsiveness by stakeholders who are meant to benefit from these activities.

Porter and Kramer (2006) offer the example of Nestle in India where they entered the region in a bid to secure milk suppliers. Through stakeholder engagement they offered improved methods, technologies as well as infrastructure, they created a value chain they could depend on while simultaneously improving the lives of local farmers and improving the local economy. As a result of their prosperity, the region where Nestle operated had a significantly higher standard of living when compared to other regions including access to more doctors, telephones, schools as well as electricity. Thus, socially responsible behaviour became a part of their business strategy and by investing in the community, Nestle was able to build up a competitive advantage as well as help develop the local community. According to Euromonitor International (2011), in Nigeria, CSR through stakeholder engagement represents a way for companies to win the hearts of their local/host communities as well as a way to better understand the local culture. Presently, public relation through CSR has become standard practice in Nigeria with several manufacturers of super brands using it as means of building a strong foundation within the country and a way to portray such companies as part of the community within which they operate. However, there are indications that the full potentials of what companies and especially FMCGs operating in Nigeria can achieve has not been fully utilized, making it imperative to investigate the engagement strategies of FMCGs and the responsiveness of stakeholders since formulating functional CSR goals takes the combine effort of both parties.

Fast Moving Consumer Goods (FMCG) are product that sell easily and quickly at a relatively low cost. FMCGs have a short shelf life because of high consumer demand or because they are perishable. FMCGs are generally cheap products that have a short shelf life and are purchased by consumers regularly (kenton, 2020), FMCG companies have CSR duties towards the people and the environment. To accomplish such duties, they can partner with the people in diverse areas through varied engagement strategies (Alabi, Ologbonjaye, Awosolu, & Alalade, 2019). FMCG companies in Nigeria can contribute as part of CSR on how the natural environment can be protected; however, the measure of stakeholders' responsiveness can make or mar their efforts. The basic idea here is not to create the impression that FMCGs and other multinationals operating in Nigeria are doing nothing in relation to CSR. Brand Times (2018) identified Procter & Gamble Plc to have invested in local manufacturing and in a series of CSR projects and social investments schemes, touching over three million Nigerians annually in health and education programs such as the UNESCO Always Programme which is providing 110,000 girls in the North Eastern part of the country with basic Education; the P&G Women's Entrepreneurial Development Programme which builds the capacity of women-owned businesses; the P&G's Children's Safe Drinking Water Program has provided over 175 million liters of clean drinking water in the country amongst others. Others whose efforts are noteworthy includes Nigerian Breweries, Vital Product Plc., Flour Mills, Dangote Group, Nestle Nigeria Plc., Unilever Nigeria, Cormart Nigeria Limited, Beloxxi group, Friesland Campina Wamco Nigeria Plc., PZ Cussons, May & Baker Nigeria Plc., Dufil Prima Food, Nexans Nigeria, Zubee International Company Limited, British American Tobacco, Chi Limited, Be Global Food FZE (BGF), OK Foods and so on (Malhotra, 2014; KPMG, 2016). While the efforts and commitment to CSR among these enterprises are noticeable, their adopted engagement strategies and the level of stakeholders' responsiveness in formulating their CSR goals remains to be investigated. This study is therefore poised to investigate engagement strategies and stakeholders' responsiveness to formulating CSR goals in the FMCG industry in South West Nigeria.

2. Empirical Review

Scholars have made several attempts to understand the relationship between CSR and Stakeholder's engagement and stakeholder's responsiveness. As a result, studies have been conducted in different organizations on how they engage their stakeholders. Corporate Social Responsibility (CSR) has been in existence for a while but recently it has become central to the strategic decision making of every organization. Research in the field of CSR has grown exponentially over the years. However, while looking at the relationship between CSR and stakeholders' engagement and stakeholders' responsiveness, only a few academic studies have managed to dwell on that, where different scholars noted a surprising gap.

2.1 CSR and Stakeholder Engagement

Stakeholders are a group to which management needs to be liable (Parmar, Freeman, Harrison, Wicks, Purnell & De Colles, 2010). Stakeholders are individuals or groups that have a legitimate interest in substantive aspects of corporate activity and the interest of all stakeholders are of intrinsic value. Stakeholder are individuals or groups who have a vested interest or stake in an organization, including employees, consumers, suppliers, and the local community (Branco & Rodrigues, 2007; Cheng & Ahmad, 2010). Stakeholder engagement is an important aspect of an organization's corporate social responsibility (CSR) activities. According to Crowther & Aras (2008), it is apparent that any action(s) which an organization undertakes will affect not just itself but also the external environment within which that organization resides. In considering the effect of the organization upon its external environment within which that organization resides it must be recognized that this environment includes both the business environment in which the firm is operating, the local societal environment in which the organization is located and the wider global environment. An organization can have a significant impact on its external stakeholders through its various activities and organization's activities within the society it operates can either be beneficial or detrimental to the environment.

Within the CSR perspective, the stakeholders of a firm are defined as individuals or groups which are either harmed by or benefit from the firm, or whose rights can be violated, or have to be respected by the firm (Crane & Matten, 2004). CSR can also be defined from a stakeholder perspective: as a firm's strategic approach and initiatives toward its stakeholders (McWilliams & Siegel, 2001; Schermerhorn, 2002). Fulfilling legal responsibilities is a requirement of any firm seeking to be socially responsible, and the mandatory nature of government legislation makes it uniquely powerful. Government legislation influences CSR practices in two ways: (1) by providing tangible inducements for firms to apply some of their resources toward their stakeholders and

behave in a socially responsible way; and (2) by applying penalties if actions are not taken, or standards are contravened (Carroll, 1991b; Aguilera, Rupp, Williams & Ganapathi, 2007)

The role of CSR in the community has been classified into three levels of increasing involvement with the community (Hamman, 2003). The lowest level is "philanthropy and impact mitigation," where the community sees business as being in opposition to social development in the community. The second level of company attitude is "community investment and eco-efficiency," where business is seen as a source of funding but is still mistrusted, and the highest level is labelled "social partnership, "where the community sees business as a partner for social development. Communities can use various approaches to influence CSR practices (Tilt, 2004). To drive sustainable success, organizations need to invest effort in satisfying their stakeholders because the Stakeholder has the power to exert influence on the organization. Samantha Miles cited in Wasieleski and Weber (2017) combined the extent to which stakeholders can exert influence on an organization with a corresponding influence the organization can exert on the stakeholder by creating the 4 stakeholder hyponyms: 1. Influencer; 2. Claimant; 3. Collaborator and 4. Recipient.

The use of both traditional media and social media have strengthened organizations' abilities to engage with their publics beyond simply disseminating information, which the publics overtime have come to expect from them (Kelleher & Miller, 2006, Cone Communications, 2008;). Gone are the days when corporate websites were sufficient means of disseminating information to the media and other stakeholders (Callison, 2003). Corporations have gone a step higher by taking advantage of the opportunity to engage with the public and by actively utilizing various types of social media such as Facebook, Instagram, Twitter, YouTube, LinkedIn and so on (Sareah, 2015). For citizen or the state or local communities to know what an organization is doing in the area of Corporate Social responsibility, organizations must engage their stakeholders by not only conducting/carrying out these CSR activities but also communicating the CSR activities they have carried out to them. Tang, Gallagher, and Bie (2015) noted that CSR can be understood as a discourse, or "an interrelated set of texts, the practices of their production, dissemination, and reception, that brings an object into being". Communicating CSR activities can be challenging because organizations need to gratify different expectations from various publics, which oftentimes conflict (e.g., shareholders vs. community members) (Carroll, 1991; Porter & Kramer, 2002). Research has shown that, publics are quick to criticize CSR activities and have negative attitudes toward explicit CSR communication, as they are perceived as self-serving for the corporation rather than truly caring for the community (Coombs & Holladay, 2012; Waddock & Googins, 2011; Wagner, Lutz, & Weitz, 2009). The solution to this is for organizations to engage with the public/stakeholders by carrying them along in all the CSR activities the organization embarks on. This is because communicating CSR is still very crucial to enhancing corporate reputation and public support (Ihlen, Bartlett, & May, 2011; Coombs & Holladay, 2012). In particular, utilizing interactive media to communicate CSR issues is considered an effective means for building organization-public relationships and gaining legitimacy from publics (Esrock & Leichty, 2000; Capriotti & Moreno, 2007; Fieseler, Fleck, & Meckel, 2010).

The benefits organizations get from engaging stakeholders in their CSR activities include: improved public image, increased brand awareness and recognition, cost savings, an advantage over competitors, increased customer engagement, greater employee engagement and more benefits for employees. CSR helps to protect the environment, build closer ties between corporations and community. Also, CSR program can be seen as an aid to alleviate poverty, CSR program helps in data gathering for other public organization function and for corporate sustainability goals (Ismail, 2009; Collier 2018). CSR entails a broader approach to business than merely economic and technological purposes. Proponents of the theory of CSR assert that a firm's role, in addition to producing profit, is to generate social value, which benefits those that have an interest in or are affected by the firm's business operation activities and these are the stakeholders (Rhodes, Bergstrom, Lok & Cheng, 2014).

Erdiaw-Kwasie1, Alam, & Shahiduzzaman (2017) in their work titled "Towards Understanding Stakeholder Salience Transition and Relational Approach to 'Better' Corporate Social Responsibility: A Case for a Proposed Model in Practice" proposed a model called the Salience-partnership (SP)-CSR model. This model conceptualises CSR practices and outcomes within the frameworks of stakeholder salience via empowerment, sustainable corporate social performances and partnership quality. A holistic discussion led to the generation of propositions on stakeholder salience management, corporate social performance, corporate-community partnership systems and CSR practices, which have

both academic and management implications. The paper shares a basic logic that a healthy partnership is a prerequisite to inform better CSR practices and outcomes. Nevertheless, despite a true partnership being rare, findings from the study illustrate stakeholder salience via empowerment and sustainable corporate social performances as two critical factors necessary to develop an ideal partnership system. The paper concluded by sharing a basic logic that a healthy partnership is a prerequisite to inform better CSR practices and outcomes and that stakeholder salience via empowerment and sustainable corporate social performances are two critical factors necessary to develop an ideal partnership system.

As stakeholders become more educated about companies and the products they make, they will likely become more critical about these companies' business strategies and how these strategies impact the public sphere. Thus, it is expected that CSR should form a growing part of the corporate strategies of FMCG. These organizations equally need to engage their stakeholder and carry them along in all their CSR activities. Engaging their stakeholders will be instrumental in a brand's retail performance and ultimate success in the Nigerian FMCG marketplace.

3. Theoretical Framework

Concepts and theories of corporate social responsibility (CSR) have been examined and classified by scholars since the mid-1970s. However, owing to the evolving meaning of CSR and the huge number of scholars who have begun to analyze the issue in recent years fresh efforts are needed to understand new developments. Since there is a great heterogeneity of theories and approaches, the task remains a very hard one, mainly because heterogeneity derives from multi-disciplinary diversity. Three theories were considered in this work; the Stakeholder theory, the Social Responsibility Theory and the Managerial theory.

3.1 Stakeholder Theory

According to the stakeholder theory perspective (Freeman,1984, cited in Vollero, A., Conte, F., Siano, A., Covucci, C. (2018), the development of relationships and the engagement of stakeholders have been associated with the corporate commitment to recognizing the right of the public (consumers, investors, employees, etc.) to be heard and to report on social and environmental issues. Thus, the engagement of stakeholders appears connected to the concept of CSR (Lim & Greenwood, 2017). Through stakeholder engagement companies can better determine which information and data should be included in their CSR report (Manetti, 2011).

Central to stakeholders' theory is the concept of the stakeholder. Stakeholders as described by Freeman and Reed are any identifiable group or individual who can affect the formulation of an organization's objectives (Brin & Nehme, 2019). Thus, Stakeholder theory proposes that the objectives of a corporation can only be achieved by protecting and balancing the interests of different groups of stakeholders. Stakeholder theory has been accused of being an umbrella concept rather than a distinct theory per se. Scholars have looked into how CSR and Stakeholder theory are complementary to each other (Russo & Perrini, 2010; Jamali, 2008; Kurucz, Colbert, & Wheeler, 2008; Roberts, 1992). Stakeholder theory and CSR as distinct concepts have some areas where they overlap. The main similarity between the two concepts is that both Stakeholder theory and CSR stress the importance of incorporating societal interests into business operations knowing fully well that businesses are embedded in the society always. The two concepts differ in that stakeholder theory postulate the key responsibilities of the business overall, that is, corporate responsibilities. Where responsibility to the society (which is often represented by the local communities where a business operates) is very important though it is only one part among other corporate responsibilities. CSR on its own part prioritizes one aspect of business – its orientation towards the society at large, that is, its social orientation – over the other business responsibilities. CSR should always be an umbrella concept for a company's activities (charity, volunteering, environmental efforts, and ethical labour practices) and it should always be targeted toward the society at large. The essence of an organization when looking at Stakeholder theory primarily lies in building relationships and creating value for all its stakeholders. To this effect, stakeholder theory posits that all stakeholders (employees, customers, communities, suppliers, and financiers (owners, investors)) are equally important for a company to achieve its set goals and for it to be successful and their interests should be considered when companies make business decisions.

3.2 Social Responsibility Theory

The theory of Social responsibility has two meanings. First, it is a general name for any theory of the corporation that emphasizes both the responsibility to make money and the responsibility to interact ethically with the surrounding community. Second,

corporate social responsibility is also a specific conception of that responsibility to profit while playing a role in broader questions of community welfare. As a specific theory, it is the way corporations interact with the surrounding community and larger world, corporate social responsibility (CSR) comprise of four obligations: The economic responsibility to make money. Required by simple economics, this obligation is the business version of the human survival instinct. Companies that do not make profits in this modern market economy are doomed to perish. Although there are some special cases - Nonprofit organizations make money (from their own activities as well as through donations and grants) but pour it back into their work. Also, public/private hybrids can operate without turning in profit. In some cities, trash collection is handled by this kind of organization, one that keeps the streets clean without (at least theoretically) making anyone rich. For the vast majority of operations, however, there have to be profits. Without them, there is no business and no business ethics (Business Ethics (V1.), n.d.).

The legal responsibility compels organization to adhere to rules and regulations. Like the previous, this responsibility is not controversial. What proponents of CSR argued, however, is that this obligation must be understood as a proactive duty and responsible organizations accept the rules as a social good and make good faith efforts to obey not just the letter but also the spirit of the limits. The ethical responsibility on its own part has to do with what is right even when not required by the letter or spirit of the law. Ethical responsibility is the Social responsibility theory's keystone obligation, and it depends on a coherent corporate culture that views the business itself as a citizen in the society, with the kind of obligations that citizenship normally entails. For example, many industrial plants produce, as an unavoidable part of their fabricating process, poisonous waste, if such companies were not legally required to enclose their poisons in double-encased, leak-proof barrels, the right and ethical thing to do is to double-encased, leak-proof barrels so as to ensure that the contamination will be safely contained. Though it might not be the right thing to do in terms of pure profits, but from a perspective that view stakeholders' welfare as being valuable, the measure should be adopted by such industrial plants. Finally, philanthropic responsibility deals with how organizations contribute to society's projects even when they are independent of the particular business. When organizations engage in public acts of generosity, this signifies that businesses, like everyone in the world, have some obligation to support the general welfare of the society where they operate. Social responsibility theory as it relates to the FMCG companies implies the obligations of the management of FMCG companies to protect the interests of the society where they operate and their stakeholders. Therefore, the objective of managers in carrying out their corporate social responsibility goals and when taking business decisions is not merely to maximize profits or shareholders' value but also to serve and protect the interests of other stakeholders such as workers, consumers and the community as a whole. Also, the government should make it compulsory for firms to be socially responsible. FMCG companies should not ignore society while carrying out production and making profits.

3.3 Managerial Theory

The simple definition of social responsibility calls it the obligation of an organization its management, in particular towards the interests and the welfare of the society that it operates in (Luenendonk, 2019). Corporate Social responsibility is a management strategy used by businesses to create a positive impact in the society. CSR involves the management of stakeholders' concerns about responsible and irresponsible actions related to environmental, ethical and social phenomena to create corporate benefits (Vaaland, Heide & Gronhaug, 2008). CSR can improve the company's value delivered to their stakeholders. While it is a fact that businesses operate for the purpose of maximizing profit, it is still very important for such businesses to maintain good relationship with their host community. Secchi's (2007) analysis stresses the logic of managerial theory that emphasizes corporate management in which CSR is approached by the corporation internally. This suggests that everything external to the corporation is taken into account for organizational decision making. Managerial theories have been divided into three sub-groups: 1) Corporate social performance (CSP); 2) Social accountability, auditing and reporting (SAAR), and 3) Social responsibility for multinationals. Managerial theories are also strongly related to political theories based on the conceptualization by Wood and Lodgson (2002) and supported by Garriga and Mele (2004) as well as Detomasi (2008). They stressed that the social responsibilities of businesses arise from the amount of social power a corporation has and the corporation is understood as being like a citizen with certain involvement in the community. CSR has implications on community and community development in many ways. Based on the report of

Towers Perrin (2009) CSR is the third most important driver of employee engagement overall.

The role of CSR in community development used in this study is any direct and indirect benefits received by the community as results of the social commitment of corporations to the overall community and social system. It is quite noticeable how prominent Corporate Social Responsibility (CSR) has become, not just in the academic world and in the business world but also in the everyday life. Factors such as poor business behaviour towards the customer, treating employees unfairly and ignoring the environment and the consequences of organizational action have brought CSR to the forefront. For companies that have admitted the problems and taken steps to correct the problems they have had their popularity increased in the society. Organizations more than never before now take CSR more seriously not just because they understand that it is a key to business success and can give them a strategic advantage, but because people in those organizations care about social responsibility (Crowther & Aras, 2008).

The Organization is a part of a wider societal network and they need to recognize that their actions affect the external environment, they must therefore assume responsibility for the effects of their actions on the environment. An organization is accountable to the wider social network. According to Crowther and Aras (2008), this accountability therefore necessitates the development of appropriate measures of environmental performance and the reporting of the actions of the organization. This necessitates cost on the part of the organization in developing, recording and reporting such performance and to be of value the benefits must exceed the cost. Benefits must be determined by the usefulness of the measures selected to the decision-making process and by the way in which they facilitate resource allocation, both within the organization and between it and other stakeholders. Managerial theory suggests that all things outside the scope of the business be taken into account when making decisions.

4. Research Materials and Methodology

4.1 Study Design and Location

A convergent parallel design entails that the researcher concurrently conducts the qualitative and quantitative elements in the same phase of the research process, weighs the methods equally, analyzes the two components independently, and interprets the results together (Creswell & Plano-Clark, 2011). Using the Convergent parallel mixed design method of corroboration and validation, the researcher aimed to triangulate the methods by directly comparing the quantitative statistical results and the qualitative findings. The choice of Convergent parallel mixed method design is because it helps to develop more complete understanding of the research problem by obtaining different but complementary data for validation purpose. The researcher applied this method through the administration of questionnaire, in-depth interviews to different segments of the population and Secondary data gotten from the website of the selected FMCG companies – The Sustainability reports from Nestle Nigeria Plc., Unilever Nigeria Plc., and Dangote Industries Limited (Bian, 2018). The key advantage of Convergent parallel mixed method design as explained by Creswell, Clark, Gutmann and Hanson (2003) is that it is used to compare results or to validate, confirm, or corroborate quantitative results with qualitative findings.

4.2 Sampling

The sample size for the study was derived using Saunders, Lewis and Thornhill (2012) formula. The formula produced a sample size of 833 respondents. The study setting was the South-West geopolitical zone of Nigeria. Two states: Lagos and Ogun. The stratified sampling technique was used in selecting the FMCG Companies for this study. FMCG companies were first divided into strata, Monobrand, Offering 2-3 Products and Multi-product FMCG companies. Multi-product FMCG company was purposively selected because of the nature of their products (multi-product), which covers diverse needs of consumers across the country.

The researchers with three trained research assistants administered a total of 833 copies of the research instrument between January and March, 2022. Completed instruments were retrieved, sorted and analyzed using descriptive tools of mean, standard deviation and frequencies. Ethical approval for the study was obtained from Babcock University Health Research Ethics Committee (BUHREC).

5. Results

From the administered and retrieved instrument, 814 were validated for analysis, resulting in 97.7% response rate. The Cronbach's Alpha reliability coefficients ranged from 0.83 to 0.95.

Table 1: Demographic characteristics of respondents

Variable		Frequency (n)	Percentage (%)
Gender	Male	466	57.2
	Female	348	42.8
	Total	**814**	**100.0**
Age	18 - 27 years	203	24.9
	28 – 37yrs	229	28.1
	38 – 47 years	262	32.2
	48 years and above	120	14.8
	Total	**814**	**100.0**
Marital Status	Single	256	31.4
	Married	558	68.6
	Total	**814**	**100.0**

Source: **Field Survey 2022**

Table 1 indicates that majority of participants in this study were male stakeholders (57.2%); while the female stakeholders had a 42.8 percent proportion of representation. Also, age range 38-47 had the highest number of respondents (32.2%), followed by age range 28-37 (28.1%). Age range 18 -27 (24.9%) while age range 48 years and above had the lowest number of respondents (14.8%). This implies that majority of stakeholders who participated in this study could be described as young men and women. Furthermore, majority of the stakeholders in this study (68.6%) were married while (31.4%) were single.

RQ1: What is the level of stakeholders' awareness of FMCG companies' CSR engagement strategies?

Table 2: Level of stakeholders' awareness of FMCG companies' CSR engagement strategies

Items	**HE** *Freq.* **(%)**	**ME** *Freq.* **(%)**	**LE** *Freq.* **(%)**	**VLE** *Freq.* **(%)**	**Mean ($\bar{x}$)**	**Standard Deviation (SD)**
Employees Participation/Contribution (Mean = 2.85, SD= 1.04)						
I participate in web-based surveys each time the link is made available for workers	59 (70.2)	19 (22.6)	6 (7.1)	- -	3.63	1.11
My organization has the culture of engaging with employees when developing CSR objectives	56 (66.7)	21 (25)	7 (8.3)	- -	3.58	0.98
I always participate in CSR surveys in my organization	45 (53.6)	15 (17.9)	18 (21.4)	6 (7.1)	3.18	1.01
I use the suggestion box in my organisation to give my opinion on CSR	39 (46.4)	23 (27.4)	10 (11.9)	12 (14.3)	3.06	1.10
Management consult with employees during general meetings before making decisions on CSR goals	34 (40.5)	21 (25.0)	11 (13.1)	18 (21.4)	2.85	1.03
I attend all engagement meetings that I am aware of	13 (15.5)	19 (22.6)	33 (39.3)	19 (22.6)	2.31	1.02
I only hear about CSR in this company, I do not participate in anything concerning it	10 (11.9)	19 (22.6)	29 (34.5)	26 (31)	2.15	1.10
I give my opinions on CSR matters through my immediate boss	- -	25 (29.8)	37 (44.0)	22 (26.2)	2.04	0.98

Host Communities Participation/Contribution (Mean = 2.84, SD= 0.93)						
The company rarely ask us what we want, they just tell us what they want to do	431 (59.0)	151 (20.7)	106 (14.5)	42 (5.8)	3.33	0.65
Our community leaders/Obas/chiefs tells us about the plans of the company	398 (54.5)	173 (23.7)	78 (10.7)	81 (11.1)	3.22	1.07
I usually attend town hall meetings whenever the company invites us in the community	355 (48.6)	211 (28.9)	47 (6.4)	117 (16.0)	3.10	0.93
They distribute paper surveys sometimes and ask us to complete them, which I always do	221 (30.3)	209 (28.6)	218 (29.9)	82 (11.1)	2.78	0.97
We give our opinions during our association and union meetings	133 (18.2)	333 (45.6)	175 (24.0)	89 (12.2)	2.70	0.92
The company receives our opinions through community representatives	177 (24.2)	235 (32.2)	129 (17.7)	189 (25.9)	2.55	0.83
Land is usually our major contribution in this community, the CSR decision is often made by the company	183 (25.1)	118 (16.2)	349 (47.8)	80 (11)	2.55	1.10
The company usually issue circulars to invite opinions on CSR in the community	201 (27.5)	127 (17.4)	213 (29.2)	189 (25.9)	2.47	0.99
Overall Average Mean					**2.84**	**0.99**

Source: **Field Survey, 2022; KEY: HA = Highly Aware, MA = Moderately Aware, PA =Poorly Aware, NA =Not Aware***Decision Rule: if mean is 1 to 1.74= Not Aware, 1.75 to 2.49= Poorly Aware, 2.50 to 3.24= Moderately Aware, 3.25 to 4= Highly Aware**

Table 2 shows that stakeholders were generally moderately aware of FMCG companies' CSR engagement strategies ($\bar{x}$= 2.97). Employees were moderately aware of their FMCG companies' CSR engagement strategies ($\bar{x}$= 3.05). Further analysis shows that employees were specifically highly aware of the following FMCG company's CSR engagement strategies: workers' union/association ($\bar{x}$= 3.70), circulating memos ($\bar{x}$= 3.52), surveys ($\bar{x}$= 3.44), use of suggestion boxes ($\bar{x}$= 3.39) and web-based survey ($\bar{x}$= 3.39). In addition, employees were moderately aware of general workers meetings ($\bar{x}$= 3.10); while they were poorly aware of CSR engagement strategies that go through immediate bosses ($\bar{x}$= 2.11) and workers meeting at departmental levels ($\bar{x}$= 1.75). Furthermore, results from the table also points out that members of the host community were generally moderately aware of FMCG companies' CSR engagement strategies ($\bar{x}$=2.86). Host communities were particularly highly aware of working through community leaders/Obas/Chiefs ($\bar{x}$=3.62) and town hall meetings ($\bar{x}$=3.36); while they were moderately aware of town unions/interest groups ($\bar{x}$=3.18) and community representatives ($\bar{x}$=2.97). Host communities were however poorly aware of surveys ($\bar{x}$=2.32) and circulars ($\bar{x}$=1.69).

This shows that stakeholders were generally moderately aware of FMCG companies' CSR engagement strategies. In addition, FMCG company's CSR engagement strategies that employees were mostly aware of were as follows: workers' union/association followed by circulating memos, surveys, use of suggestion boxes and web-based survey. These were followed by general workers meetings; while through immediate bosses and workers meeting at departmental levels were the CSR engagement strategies that employees were least aware of. In addition, host communities were highly aware of working through community leaders/Obas/Chiefs and town hall meetings as FMCG company's CSR engagement strategies; while they were moderately aware of town unions/interest groups and community representatives. On the other hand, host communities were poorly aware of surveys and circulars as FMCG company's CSR engagement strategies.

RQ2: What is the extent of stakeholders' responsiveness to FMCG companies' CSR policy formulation?

Table 3: Extent of stakeholders' responsiveness (participation/contribution) to FMCG companies' CSR policy formulation

Items	HE Freq. (%)	ME Freq. (%)	LE Freq. (%)	VLE Freq. (%)	Mean ($\bar{x}$)	Standard Deviation (SD)
Employees Participation/Contribution (Mean = 2.85, SD= 1.04)						
I participate in web-based surveys each time the link is made available for workers	59 (70.2)	19 (22.6)	6 (7.1)	- -	3.63	1.11
My organization has the culture of engaging with employees when developing CSR objectives	56 (66.7)	21 (25)	7 (8.3)	- -	3.58	0.98
I always participate in CSR surveys in my organization	45 (53.6)	15 (17.9)	18 (21.4)	6 (7.1)	3.18	1.01
I use the suggestion box in my organisation to give my opinion on CSR	39 (46.4)	23 (27.4)	10 (11.9)	12 (14.3)	3.06	1.10
Management consult with employees during general meetings before making decisions on CSR goals	34 (40.5)	21 (25.0)	11 (13.1)	18 (21.4)	2.85	1.03
I attend all engagement meetings that I am aware of	13 (15.5)	19 (22.6)	33 (39.3)	19 (22.6)	2.31	1.02
I only hear about CSR in this company, I do not participate in anything concerning it	10 (11.9)	19 (22.6)	29 (34.5)	26 (31)	2.15	1.10
I give my opinions on CSR matters through my immediate boss	- -	25 (29.8)	37 (44.0)	22 (26.2)	2.04	0.98
Host Communities Participation/Contribution (Mean = 2.84, SD= 0.93)						
The company rarely ask us what we want, they just tell us what they want to do	431 (59.0)	151 (20.7)	106 (14.5)	42 (5.8)	3.33	0.65
Our community leaders/Obas/chiefs tells us about the plans of the company	398 (54.5)	173 (23.7)	78 (10.7)	81 (11.1)	3.22	1.07
I usually attend town hall meetings whenever the company invites us in the community	355 (48.6)	211 (28.9)	47 (6.4)	117 (16.0)	3.10	0.93
They distribute paper surveys sometimes and ask us to complete them, which I always do	221 (30.3)	209 (28.6)	218 (29.9)	82 (11.1)	2.78	0.97
We give our opinions during our association and union meetings	133 (18.2)	333 (45.6)	175 (24.0)	89 (12.2)	2.70	0.92
The company receives our opinions through community representatives	177 (24.2)	235 (32.2)	129 (17.7)	189 (25.9)	2.55	0.83
Land is usually our major contribution in this community, the CSR decision is often made by the company	183 (25.1)	118 (16.2)	349 (47.8)	80 (11)	2.55	1.10
The company usually issue circulars to invite opinions on CSR in the community	201 (27.5)	127 (17.4)	213 (29.2)	189 (25.9)	2.47	0.99
Overall Average Mean					**2.84**	**0.99**

Source: Field Survey, 2022

KEY: HE = High Extent, ME = Moderate Extent, LE =Low Extent, VLE =Very Low Extent ***Decision Rule: if mean is 1 to 1.74= Very Low Extent, 1.75 to 2.49= Low Extent, 2.50 to 3.24= Moderate Extent, 3.25 to 4= High Extent

Table 3 indicates that the extent of stakeholders' responsiveness (participation/contribution) to FMCG CSR policy formulation was moderate ($\bar{x}$= 2.84). Particularly, employee's participation and contribution were generally moderate ($\bar{x}$= 2.85). Specifically, employee's participation/contribution was high for web-based surveys because they participated in it each time the link was made available to workers ($\bar{x}$= 3.63) and that their respective organizations had the culture of engaging with employees when developing CSR objectives ($\bar{x}$= 3.58). Employees had moderate responsiveness to the CSR engagements of their companies because they participated not too frequently in CSR surveys that are not web-based in their organization ($\bar{x}$= 3.18), used the suggestion box in their organisation to give their opinion on CSR ($\bar{x}$= 3.06) and that management consulted with employees during general meetings before making decisions on CSR goals ($\bar{x}$= 2.85). However, employees to a low extent attended all engagement meetings that they were aware of ($\bar{x}$= 2.31) and that they to a low extent gave their opinions on CSR matters through their immediate boss ($\bar{x}$= 2.04).

This implies that employees generally had a moderate extent of responsiveness to their company's CSR engagements. They specifically to a high extent participated in their respective organization's web-based surveys CSR engagements because their organizations had the culture of engaging with employees when developing CSR objectives and that they do so via web-based surveys each time the link was made available for workers. They also had moderate responsiveness to the CSR engagements of their companies that has to do with other forms of surveys in their organization, they used the suggestion box in their organisation to give their opinion on CSR and that management consulted with employees during general meetings before making decisions on CSR goals. On the other hand, employees had low attendance of engagement meetings that they were aware of and that they to a low extent gave their opinions on CSR matters through their immediate boss.

Results in the table also depicts that the extent of host communities of respective FMCGs responsiveness (through participation/contribution) to FMCG CSR engagements was generally to a moderate extent ($\bar{x}$= 2.84). The host community indicated to a high extent that the company rarely asked them what they wanted, but they tell us what they wanted to do ($\bar{x}$= 3.33). The host community to a moderate extent noted that their community leaders/Obas/chiefs told them about the plans of the company ($\bar{x}$= 3.22), they usually attended town hall meetings whenever the company invited them in the community ($\bar{x}$= 3.20), the company received their opinions through community representatives ($\bar{x}$= 2.55) and that land was usually their major contribution in the community, the CSR decision was often made by the company ($\bar{x}$= 2.55)

This analysis depicts that the extent of stakeholders' responsiveness to CSR engagement strategies of FMCG companies in South-west Nigeria was generally moderate. This implies that FMCG companies in this study not very often found a way to carry their stakeholders along through a combination of strategies to enable as many stakeholders as possible to participate and contribute their quota to the formulation of the CSR objectives. This result is in contrast with the outcome of dialogues between the researcher and shareholders of respective companies who noted that management of FMCG companies rarely embarked on any CSR projects without seeking opinions and inputs from shareholders. However, some community members and employees who spoke with the researcher anonymously expressed reservations on the extent to which their opinions were considered in making final decisions and during implementation stages of most CSR projects.

RQ3: what are stakeholders' preferred channels of response?

Table 4: Stakeholders' most preferred channel of response to CSR engagement

Items	**MP** *Freq.* (%)	**P** *Freq.* (%)	**RP** *Freq.* (%)	**NP** *Freq.* (%)	**Mean** ($\bar{x}$)	**Standard Deviation** (SD)
Employees preferred channel of response (Mean = 2.60, SD= 1.00): ***Which of these CSR response channels in your organization do you prefer?***						
Workers' union/association	33 (39.3)	39 (46.4)	12 (14.3)	- -	3.25	1.15

General workers meetings	35 (41.6)	30 (35.7)	5 (5.6)	14 (16.6)	3.02	1.14
Surveys	31 (36.9)	23 (27.4)	17 (20.2)	13 (15.5)	2.86	1.07
Workers meeting at departmental levels	22 (26.2)	32 ((38.1)	11 (13.1)	19 (22.6)	2.68	0.88
Use of suggestion boxes	14 (16.6)	29 (34.5)	26 (31.0)	15 (17.9)	2.50	1.00
Web based survey	15 (17.9)	27 (32.1)	22 (26.2)	20 (23.8)	2.44	0.90
Circulating memos	3 (3.6)	27 (32.1)	44 (52.4)	10 (11.9)	2.27	0.92
Through immediate bosses	- -	12 (14.3)	41 (48.8)	31 (36.9)	1.77	0.97
Host Communities preferred channel of response (Mean = 2.69, SD= 1.09):						
Which of these FMCG companies CSR response channels do you prefer in your community?						
Town hall meetings	442 (60.5)	221 (30.3)	67 (9.2)	- -	3.51	1.08
Town unions/interest groups	313 (42.9)	273 (37.4)	118 (16.2)	26 (3.6)	3.20	1.08
Surveys	279 (38.2)	147 (20.1)	183 (25.1)	121 (16.6)	2.80	1.09
Through community leaders/Obas/chiefs	101 (13.8)	143 (19.6)	355 (48.6)	131 (17.9)	2.29	1.07
Community representatives	129 (17.7)	117 (16.0)	288 (39.4)	196 (26.8)	2.25	1.13
Through circulars	93 (12.7)	97 13.3)	315 (43.2)	225 (30.8)	2.08	1.11
Overall Average Mean					**2.64**	**1.04**

Source: Field Survey, 2022

KEY: MP = Most Preferred, P = Preferred, RP =Rarely Preferred, N =Not Preferred ***Decision Rule: if mean is 1 to 1.74= Not Preferred, 1.75 to 2.49= Rarely Preferred, 2.50 to 3.24= Preferred, 3.25 to 4= Most Preferred

Table 4 shows that employees' most preferred channel of response to FMCG companies' CSR engagement was workers' union/association ($\bar{x}$= 3.25). Employees also preferred general workers' meeting ($\bar{x}$= 3.02) surveys ($\bar{x}$= 2.86), workers meeting at departmental levels ($\bar{x}$= 2.68) and use of suggestion boxes ($\bar{x}$= 2.50) as channels of response to FMCG companies' CSR engagement. In addition, employees rarely preferred web-based survey ($\bar{x}$= 2.44), circulating memos ($\bar{x}$= 2.27) and through immediate bosses as channels of response to FMCG companies' CSR engagement.

Furthermore, members of the host communities indicated that their most preferred channel of response to be town hall meetings ($\bar{x}$= 3.51). They also preferred town unions/interest groups ($\bar{x}$= 3.20) and surveys ($\bar{x}$= 2.80); while their rarely preferred channels of response were community leaders/Obas/chiefs ($\bar{x}$= 1.53), community representatives ($\bar{x}$= 2.29) and circulars ($\bar{x}$= 2.08). This analysis implies that stakeholders of FMCG companies in South-west Nigeria mostly prefer inter-personal interactions with companies' managements in reaching agreements and responding to issues relating to corporate social responsibility projects in communities. This is seen in their preference for

various face-to-face interactive options signifying their desire to engage with respective companies' management, ascertain clarifications on grey areas before giving approvals for CSR projects implementation. Outcome of dialogues with shareholders also indicated their preference for a detailed engagement with management before embarking on any CSR project and accountability for previous projects implemented as to engender transparency in dealings.

6. Discussion

The results showed that employees were moderately aware of FMCG companies' CSR engagement strategies for formulation of CSR goals ($\bar{x}$ = 3.05, *SD* = 1.25). Host communities were also moderately aware ($\bar{x}$ = 2.86, *SD* = 0.90). Jointly, all stakeholders were moderately aware of FMCG companies' CSR engagement strategies ($\bar{x}$ = 2.97, *SD* = 1.10). Employees' responsiveness to CSR policy formulation was moderate ($\bar{x}$ = 2.85, *SD* = 1.04). Host communities' responsiveness was also moderate ($\bar{x}$ = 2.84, *SD* = 0.93). Jointly, stakeholders' responsiveness to CSR policy formulation was moderate ($\bar{x}$ = 2.84, *SD* = 0.99). Findings also showed that employees' most preferred channel of response to FMCG companies' CSR engagement was workers' union/association ($\bar{x}$= 3.25). Members of the host communities indicated that their most preferred channel of response to be town hall meetings ($\bar{x}$= 3.51).

7. Conclusion

The study investigated how awareness of engagement strategies and stakeholders' responsiveness (participation/contribution) informed the formulation of CSR goals of FMCG companies in South West Nigeria. Findings revealed that engagement strategies such as general staff meetings, departmental staff meetings, employee surveys, annual general meetings (AGM), and community engagement sessions/Town hall meetings, among others served as strategies through which FMCG companies engaged various segments of stakeholders as to harness their inputs towards the formulation of CSR objectives. The study concluded that stakeholders were not fully aware of engagement strategies for formulation of CSR goals and stakeholders' responsiveness to CSR policy formulation was also moderate.

8. Recommendation

Findings from this study have shown that stakeholders were not fully aware of engagement strategies for formulation of CSR goals and stakeholders' responsiveness to CSR policy formulation was also moderate. Since engagement strategies and stakeholders responsiveness both had a strong influence on the formulation of corporate social responsibility (CSR) objectives, FMCG companies should carry out regular engagement exercises with their stakeholders in order to come up with CSR objectives that will produce satisfaction for both the organization and its stakeholders. The study recommended that management of FMCG companies should intensify efforts to ensure full awareness of engagement strategies by their stakeholders.

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A Historical Analysis of the Nexus between Water Supply and Disease Control in Western Nigeria, 1900-1945

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Abstract. This study examines the correlation between the supply of hygienic water and disease control in Western Nigeria. Focusing on the early years of colonial rule, 1900 to 1945, it interrogates the intersection between the indigenous and colonial modes of water supply and, therefore, illuminates the peculiarities and preferences of both dispensations. Beyond the realm of urbanisation, the study situates the supply of water in Western Nigeria within the context of medical history. Accordingly, it discusses the impact of unhygienic water on the prevalence of diseases such as diarrhoea, dysentery, guinea worm and typhoid fever in the area. The study shows the efforts made by the colonial authorities to introduce scientific parameters into the sourcing of water for domestic use, the challenges that beset the process, their lopsided focus on the larger towns where colonial administrators, missionaries and merchants mostly resided and the relative neglect of the rural areas. The study relies mainly on primary sources, especially data obtained from the National archives, Ibadan, which were subjected to historical analysis. This focus on the impact of water supply on the outbreak of diseases and the earliest search for hygienic water in Western Nigeria, provides a research base for subsequent studies in related themes in Nigerian medical history.

Keywords: Western Nigeria, Colonial, Water supply, Diseases, Healthcare.

1. Introduction

The supply of hygienic water in any society is not only inextricably linked to the process of urbanisation and infrastructural development, it also has a very firm footing in preventive medicine. This study, focussing on Western Nigeria, examines the colonial policies on the supply of hygienic water within the context preventive healthcare. By extension, therefore, the study is contextualised in the social history of medicine. Nigerian Historians, for a very long time, showed little interest in medical history; hence physicians like Adeola Adeloye initially dominated this genre of history writing. (Adeloye, 1985). Even when historians like E. A. Erhagbe and S. Ehiabhi, for instance, discussed water supply in Uromi, Edo state, Nigeria, they made no reference to the quest to contain enteric diseases such as diarrhoea, dysentery and typhoid and other infections like bilharzia and guinea worm, which to a large extent, informed the effort of the colonial authorities. (Erhagbe and Ehiabhi, 2011). This study, therefore, establishes the nexus between water borne diseases, water supply and the preventive healthcare policies promulgated by the British colonial administration in Western Nigeria.

Western Nigeria as captured in this study refers to the region located in the South-western end of Nigeria. The area is helmed by the Atlantic Ocean to the South, the River Niger to the East and Kwara and Kogi states of Nigeria to the north. The area has had a very long history of inter-group relations which pre-dates colonial rule and revolved around trade, politics and cultural exchange. The major groups in the area comprised the Yoruba and the Edoid elements (Benin, Esan, Urhobo, Isoko, Itsekiri, Etsako and Owan). The Ijaw are also found in the southernmost fringes of the region. In the larger part of the colonial period, the area was administered as one political unit. This character subsisted from the constitution of the area into the Western and Central Provinces in 1906 through its re-designation as Western Group of Provinces in 1939 and Western Region in 1951. This administrative history ensured the flow of policies from a common national administrative capital based in Lagos and a regional headquarter based in Ibadan.

Prior to the colonial period, the people of Western Nigeria relied on both natural and man-made sources for water supply. The former consisted of rivers, creeks, mash land, lagoon, streams and rain water while the latter embraced moats (dug out canals) and ponds. Virtually every West Nigerian community, apart from rain water, relied on other natural sources. The distribution and type of the natural sources that were available in a community depended on the environment. Rivers and streams were relatively fairly distributed while creeks were mostly found in lower Niger delta area. Lagoon was mainly available in Lagos, with tributaries flowing mostly eastward. Marsh lands also dotted some areas around Lagos and environ and intermingled with several creeks in the lower Niger delta area. Some of the natural bodies of water that were available to the people included the following:

Table I: Examples of Bodies of Water in Western Nigeria

Name	**Type**	**Location**
Agua	Lake	Irrua, Edo state
Ase	Stream	Delta State
Benin River	Benin	Benin, Edo State
Edion River	Benin	Edo state
Eleyele River	River	Ibadan, Oyo State
Enaa River	River	Udo, Edo State
Erinle	River	Osun, Osun State
Labata River	River	Araromi, Ondo State
Ikpoba River	River	Benin, Edo State
Ikogosi Warm Spring	Spring	Ikogosi, Ekiti State
Lagoon	Lagoon	Lagos and Lekki, Lagos State
Mahin River	River	Ondo State
Mangrove, Marsh land	Swamp/Mash land	Lagos, Epe, Warri and Environ
Niger Delta Creeks	Creeks	Igbodaka Ilaje, Ondo State. Also in Warri and environ, Delta State
Niger	River	Fringes of Esan land, Agenegbode in Edo State and Asaba area in Delta State
Oba	River	Oyo, Oyo State
Ogbesse	River	Ogbesse, Ondo State
Ogun	River	Ogun State
Ogunpa	River	Ibadan, Oyo
Omi Osun	Omi Osun	Omi Osun
Orlie	River	Edo state
Osun	River	Osun, Osun State
Ossiomo	River	Ossiomo, Edo State
Otan	River	Osun, Osun State
Otin	River	Osun, Osun State
Ovia	River	Benin, Edo State
Owena	Lake	Ado-Ekiti
Ugbalo		Irrua, Edo state
Ureje	Lake	Ado-Ekiti

Source: http://ooduafamily.freeforum.net, retrieved17/4/2022 and visits by the researcher to some of the water bodies such Agwa lake, Ugbalo River, Enaa River and the River Niger.

However, some areas like Uromi in Esan land, Edo state, were poorly endowed with natural channels of water. Having no river, they had to rely on man-made constructs, especially, ponds and moats. The man-made sources of water consisted mostly of ponds that were dug to serve as receptacles in low lying areas with a good flow of flood water. Ponds were sometimes fed with flood through a network of moats. Although the moats in ancient Benin are remembered more as defensive devices and protective barriers against external invasion, they also facilitated water collection. The Moats in Uromi were dedicated majorly to the channelling of water into ponds.

The people naturally considered rain and river water as cleaner sources of water for domestic use. The norms and nuances of the people regarding water hygiene were based on their culture and had no bearing with the germ theory. Therefore, rivers and ponds were cleaned for aesthetic reasons and often to appease marine gods and goddesses and not to eliminate germs which the people knew nothing about at that time. Such cleaning exercises were carried out by the youths especially as a prelude to some traditional festivals such as the Oshun festival

in Osun, Osun state, and Ikpede (river washing) festival in Okhuesan, Edo state. When the British colonialists introduced water tanks and wells, they augmented the traditional sources which for much the colonial period remained the dominant sources of water in the villages and hinterland. The introduction of portable water was to wait till the 1910s.

2. Colonial Intervention in Water Supply.

The British colonialists introduced into Western Nigeria a new phase of preventive healthcare that had a modest beginning in the administration of *quinine*, but developed to incorporate other elements like vaccination, sanitation, swamp reclamation, quarantine, leprosy control, health education and supply of hygienic water. In addition to preventive healthcare considerations regarding cross-infection between communities, the presence of vectors like mosquitoes, the long stretch of the Atlantic ocean's coast line that paved the way for the importation of a disease like yellow fever and the unhygienic disposal of waste, the colonial health authorities took cognisance of the health challenges associated with the people's reliance on ponds and rivers for water supply. Access to clean water was daunting. Yet, with the threat of water borne and diseases and death arising from them, which directly correlated with the quality of water, the colonial authorities sought alternative sources of water and create new policies in that regard. Early investigation by Henry Strachan and Edward H. Reed (Medical Officers) had by 1900 established the prevalence of water borne diseases such as guinea worm (*dracuculus medineses*), round worm (*Ascaris lubricoides*) and hook worm (*Ancylostoma duodenale*) and "more than half of the people" suffered from some form of worm infection that were traced, largely, to water polluted with faeces. (NAI. Lagos Annual Report, Medical Department, 1900: 155). Other bowel complaints like dysentery and diarrhoea were also traceable to contaminated water. Some of the earliest statistics that gave insight into the scale of the problem derived from Strachan's report of 1901:

Table II: Death from Bowel Complaints and Water Supply.

Year	Dysentery	Diarrhoea	Total
1901	197	173	370
1902	179	159	338

Source: NAI Annual Report, Medical Department 1901: 9.

Parasite and bowel complaints were rife across Western Nigerian communities. S. D. Onabamiro has identified areas where guinea worm was gravely endemic in the area. They included Lagos, Ilaro district around Eruwa, Ibadan district, Ekiti district – extending to Akure and Owo as well as Agbor area – extending to Ubiaja, Ifon and Ogwashi-Uku. Exception to the pattern was the hilly country around Ilesha and Ile-Ife, where some fast running streams flow. (Onabamiro, 1952: 159). Roundworm (*Ascaris*), dysentery and diarrhoea were even more widespread. From the Yoruba area, eastward to Benin, Esan, Afemai, Agbor and Asaba districts, they occurred with a high level of morbidity and they were among the most common cases treated at St Camillius Hospital, Uromi, Baptist Hospital Ogbomosho and Sacred Heart Hospital, Abeokuta. (Ogbeide, Interviewed, 3/3/2015).

At Ibadan and Abeokuta, the Medical Officer of Health carried out special investigation of bilharzia and hookworm infection in 1930. 58.8 per cent of the respondents from Abeokuta and 23 per cent from Ibadan were infected by bilharzia and 12 per cent of the respondents from Ibadan had hookworm. (NAI. Annual Report. Medical Department. 1930:26). As early as 1899, W. F. MacFarlane had observed that "Europeans on the Coast do not suffer from hookworm because of the habit of washing their hands with clean water after work" and boiling their drinking water.

In Ondo Province, poor and inadequate water supply was linked to frequent the cases of diarrhea and dysentery and the perturbing typhoid epidemic of 1925. Dr MacDonald reported that water supply was the chief source of the disease. For example, the source of clean water was at least a mile and half from the affected villages – Illa, Ogosi, Ikole, Illama and Ihapa. At Illa, the people relied on two shallow ponds that yielded poor quality water. In addition to unclean water, the market at Ogosi was the chief source of spread to the surrounding villages. Ogosi was the commercial centre of the district. The market was held every five days and traders from all the surrounding villages attended it, exacerbating cross-infection. At Ikole, the source of spread was, largely, attributed to the labourers recruited from that district to work on the main road near Ogosi. (NAI. CS 026/2, 15520: 16, 17). By the time it came to the notice of the Resident in July 1925, 700 people had died in Ondo Province. Of these, 300 were from Ogosi. The mortality rate was as high as 3.3%, considering that the population of Ogosi was only 9000. (NAI. CS 026/2, 15520: 16, 17). 200 persons also died at Illama out of a population of 8000. The health authorities also observed that contaminated water, inadequate toilet facilities and failure to report cases promptly contributed to the 1925 disaster. They found out that there was an outbreak in Ishan (Esan)

district three years earlier but it was never reported. The epidemic of 1925 was first noticed in April, but reported in July, thereby giving the disease some time to fester. (NAI. CS 026/2, 15520: 17).

Based on the recommendation of the investigating doctor, Conah, isolation of patients, keeping of compounds clean, burning of rubbish, boiling of drinking water and having proper latrines and improved water supply were recommended. Although the isolation of infected persons was seen as the best preventive method, it was considered impracticable because of the number of villages affected. The medical officer, Macdonald, however, succeeded in isolating some patients, using the school and church compound at Ihapa, and Ogosi. (NAI. CS 026/2, 1552: 2).

Colonial health authorities identified clean water as an antidote to such bowel complaints and as an indispensable variable in preventive healthcare. The traditional sources of water, by scientific reckoning, left much to be desired. As highlighted earlier, the indigenes relied on natural sources such as rivers, springs, rain and artificial constructs such as ponds. Apart from simple filtration of pond-water and smoking of empty water pots, treatment of water was of little moment. Health authorities linked the handling of these water sources with the prevalence of water-borne diseases and came up with policies to address the problem since the provision of portable water was not feasible at the earlier stages of colonial rule owing financial, logistic, technical and manpower problems. At the beginning, the policy was to ensure that "water supply for the Europeans throughout the whole (sic) protectorate is derived from covered tanks in which rain water is collected from the corrugated iron roof of the houses". (NAI. Lagos Annual Report. Medical Department. 1900: 1). For the indigenes such tanks were luxuries. Apart from being expensive, most of their houses, by 1900, still had thatched roofs, which were difficult to harness for water collection. Rivers, streams, ponds and wells remained popular among the people with detrimental consequences for health.

The policy of government, in consonance with the recommendation of health authorities was that public wells should be inspected regularly (once a week in practice) for contamination, safety and proper siting – 150 feet away from the nearest house. To contain harmful seepage, the padding of well with cement or clay was recommended. Shallow wells were also outlawed. In fact, they were ordered closed by 1910 (after the promulgation of anti-mosquito ordinance) because they could easily be invaded by mosquito lava. (NAI. CSO1/1/8. Memo. W.B. Griffiths to Gov. Sam Kowe. 14/3/1882. See also. Annual Report. Medical Department. 1910: 27). The use of pumps and the covering of well were also advocated to reduce contamination. The public wells dug in low land areas like Lagos, Badagry, Warri, Sapele easily yielded water. By 1900, there were four public wells in Badagry, along with numerous private ones. Lagos wells yielded water easily and by 1909 there were ninety-eight of them. Of these, twelve were pump-wells, twenty-six covered, fifty-eight open and two wind-mill wells. However, only nine were considered suitable for drinking purposes. (NAI. Annual Report. Medical Department. 1909:24). Ebute-Metta and Apapa, by 1911, had a total of ninety-four public and 2,120 private wells. Tanks were better rated than wells and, therefore, were recommended for the Europeans. There were 294 government and 119 European (other than government officials) tanks in Lagos area. The natives who were clearly in the majority had only 148. (NAI. Annual Report. Medical Department, 1911: 104). The by-laws of May 1918, 27th November 1919, rule number 2 of 1935 and public notice of 1942 regulated water supply and sanitation in Lagos: no one was allowed to dig a well within a radius of hundred yards from a street fountain or water source. All existing wells were to be rendered mosquito proof to the satisfaction of the health officer who otherwise ordered them covered. (Kingdon, 1958: 2003)

In the Benin, Esan and Etsako axis as well as Ogwashi-Uku and Ibusa area, the water bearing strata was relatively deep and so wells did not yield water easily. Although some form of piping from tanks was done as early as 1910 in European and government Quarters in Benin, the people still relied more on rivers, rainwater and ponds. (NAI. Annual Report. Medical Department, 1930: 27). Bacteriological and chemical analysis of such sources water meant for domestic use were frequently carried out to ascertain the level of purity and always portrayed them as unsafe. In Lagos, a pipe borne water scheme designed and executed by Mr H. Peet, Director of the Public Works Department (PWD), was muted in 1907. Iju valley was chosen. The project was completed in 1919 at a cost of £296,700. Pumping commenced in December of that year. The water works at Iju (twenty-seven kilometres from Lagos) drew water from Iju and Adiyan streams. Water was pumped to ten-million-gallon capacity tanks and from these to eight filter beds and then to a clear water tank with a storage capacity of two million gallons. It was floored and roofed with concrete. From here, a service reservoir, six million gallons capacity was supplied. The service reservoir was also

done with concrete to protect the water from pollutants after leaving the filter bed. Water was conveyed from here by gravity through twenty-six inches pipes to Lagos and Ebute Metta in the first instance. (NAI. Annual Report. Medical Department, 1914: 47).

The health benefit of pipe borne water was, perhaps, the most important consideration, as the colonial authorities expected it to have "a most beneficial effect on the health of the population". (NAI. Annual Report. Medical Department. 1915: 21). Pipe-borne water was, therefore, extended to other districts in Lagos beginning from Apapa, Iddo, Ikoyi and Ijora. Subsequently, Lagos mainland was connected. As indicated earlier, water-related diseases experienced across Western Nigeria necessitated the extension of pipe-borne water projects into the hinterland. Abeokuta received attention in 1913. The water project here was completed and formally inaugurated by the governor in 1914, with limited supply to the town as initial emphasis was on government and European quarters. The original scheme consisted of two steam engines that pumped untreated water from an interior pump well from Ogun River through a set of candy filter to the concrete service reservoir of 300,000 gallons. By 1924, the service reservoir capacity had been doubled and chemical purification with *aluminum sulphate* introduced. In 1932, the steam engine had become unserviceable and electric pump was introduced. In 1936, a pyramid tank was constructed and the number of fountains in the town increased from the initial twenty-four to 110. (NAI. Abe Prof I, ABP 1367 Annual Report Departmental, Abeokuta Province 1938: 106).

By 1926, modalities for pipe borne water in Ijebu-Ode and Ibadan were worked out. A sum of £8000, which was initially earmarked for water supply at Ibadan was not released because of post-World War 1 economic recession. Nevertheless, by 1925, the people of the town had petitioned the government to initiate a water supply scheme. The initial plan was to harness Ogunpa stream for the European population. (NAI. Colonial Report. Annual – Nigeria, 1926: 31). Extension to Ibadan mainland was not done until 1930 when the Agodi and Adeoyo water schemes were initiated. Moor plantation water supply scheme was also completed in that year. (Ibid). The Oyo water scheme also commenced that year. (Ibid). The construction of a dam for Ife water works started in 1929, estimated to produce 500,000 gallons a day. Feasibility studies were also initiated for Oshodi in Lagos mainland and Benin. (Ibid: 80). The water problem in the Benin Province remained acute as rivers, streams, ponds and rainwater remained the main source of water by 1930. Water borne diseases such as guinea worm remained a problem. The Initial attempts to sink public wells failed. The borehole option met with a lot of difficulties because of the depth the water bearing strata was found to be 142 feet in 1933. (Ibid: 31). In Ishan (Esan) Division, water was found to be deeper than expected. (Erhagbe and Ehiabhi, 2011) The Geological Survey Department was, therefore, drafted to take charge of the problem in Benin Province. (Ibid) Thus, sophisticated geo-physical methods were employed. Yet the wells "tapped relatively shallow body of water", which was not suitable for harnessing into pipe-borne water. (NAI. Colonial Report. Annual – Nigeria, 1926: 32).This slowed down the pace of waterworks. Progress was made rapidly in the 1930s, with more efforts to overcome the challenges in difficult terrains like Esanland largely because of the emphasis of the Rockefeller foundation research group that showed the immense importance of water in preventive healthcare. (Ibid: 28). The ground water project in Benin gradually took shape. Ogba River was also harnessed for pipe borne water supply in the town. Being the first major pipe borne water source in Benin Province, *Ogba* (originally name of Ogba River) crept into the vocabulary of Benin, Esan, Etsako, Urhobo and Anioma people and has been adopted as the name of pipe borne water. By 1938, significant progress had also been made in Ishan Division in the sinking and harnessing of wells. (Erhagbe and Ehiabhi, 2011)

At Otta, a water project was completed in June 1938. It involved two deep bore wells drilled by the Geological Survey Department. It commenced by supplying water to the rest-house and five public fountains. (NAI. Abe Prof I, ABP 1367, Annual Report Departmental. Abeokuta Province, 1938:106)

Fig I: An Example Colonial Public Water Fountain Used in Western Nigeria

At Owode, the Owode spring was channeled by means of covered pipes to a walled reservoir to serve government facilities and personnel by 1938. The

people still largely relied on tanks at that time. (NAI. Abe Prof I. ABP 1367 Annual Report. Departmental. Abeokuta Province, 1938: 108). In the same year, a proposal was made to harness the Ilaro spring water to supply 80,000 gallons per day to a high point circular reservoir near the district officer's house. It was to be treated with soda ash and chlorine and supplied to fourteen fountains in the town. (Ibid). Water supply in Egba generally was unsatisfactory, except in Otta. Ifo was yet to be connected at this point in time. At Owode, a stream was walled and piped to protect the inhabitants from guinea worm. As a result of inadequate water supply, poor sanitation and heavy infestation with mosquitoes at Itori, the United African Company (UAC) was advised to relocate and they did, moving to a location near Ife. By 1939, towns such as Ife, Ogbomosho, Iseyin, Oyo, Abeokuta, Iwo, Ede and Oshogbo had also been provided with clean water. (NAI. Abe Prof I. ABP 1367 Annual Report. Departmental. Abeokuta Province, 1938: 108)

To render pipe-borne water safer and less conducive to opportunistic diseases, aeration, chemical treatment (chlorination) was introduced by 1930. It had been observed that although cleaner and safer than other sources, pipe-borne water was sometimes contaminated through rusty pipes, burst pipes, perforations, human contact during repairs and malfunctioning of the filtration bed as it was in Iju water works in 1925. (NAI.CSO2603291 Vol. III. Memo Director of Medical Services to Chief Sec to Govt. 15/6/26). Heavy rain also compounded the problem by increasing the turbidity of the rivers from where water was tapped. Aeration was recommended and done to reduce acidity, which was caused by dissolved carbon dioxide. *Aluminium sulphate* (*alum*) was used to coagulate fine particles before filtration, while chlorination was an anti-bacterial measure. (NAI.CSO2603291. Vol. VI. Lab. Analyst to Chief Sec to Govt. 9/7/27). Well water and tank water, however, continued to exist alongside pipe-borne water. Smaller villages that clearly out-number the major towns were completely neglected in the pipe-borne water scheme and continued to rely on primordial sources of water with negative consequence for water-borne diseases. Even in towns that were piped for water supply, only the central parts were provided with water fountains. However, information about the need to boil pond water circulated widely through teachers, missionaries, propaganda units and sanitary inspectors. The achievements in this domain contributed to the progress recorded in preventive healthcare across the region. Besides water treatment, sanitary inspectors diligently enforced the covering of wells, draining or oiling of pools, filling of tree holes and cutting down of water bearing plants in public places. The idea of boiling, filtering and processing pond water with *alum* was imbibed quickly, but not so for river and well-water because the people assumed they were clean enough for domestic use. So, there were always challenges to contend with. European quarters and offices certainly got a greater share of pipe borne water and associated facilities like water cistern sewage disposal. The uneven distribution of water resources was facilitated by the policy of segregation in residential area between the Europeans and the indigenes.

The policies on preventive healthcare and water supply adopted by the Western regional government in the 1950s up to Nigerian independence in 1960 dovetailed into the character of the policies of the preceding years. The regional government's position was expressed in the public health policy statement presented in a formal declaration of July 1952 which made water supply the foremost issue as follows:
The health policy of the present government is based on three fundamentals. Firstly, the provision of adequate water supply. Secondly, the progressive building up of environmental hygiene… coupled with a vigorous campaign of preventive medicine. Therapeutic medicine must be largely a wasted effort if the patients have to return to the same environment which caused their disease. (NAI. PR/F3. Public Health Policy for the Western Region, Nigeria, 1952)

In spite of this, the attitude of successive government to water supply in Western Nigeria has been rather perfunctory. For instance, a study carried out in Ijebu-North indicates that:

Only three per cent of the people have access to clean and safe pipe-borne water while the remaining 97% relied on streams, rain water, wells and springs. Only 26% of the people had water supply within their houses while 47% of the rural dwellers trek for over an hour to fetch drinking water. (Agbelemoge, 2001).

These limitations have endured because successive governments in post-independence Nigeria have not responded adequately to them. The tripartite responsibility for water supply between the federal, state and local governments spelt out in Decree No. 101 of 1993, and the Government and the Rural Water Supply and Sanitation Policy of 2000 have not translated to effective supply of pipe-borne water and control of water borne diseases. (www.wateraid.org/~/media/Publications/water-sanitation-nigeria-national-policy.pdf.) This is underscored by a report of the World Health

Organisation that inadequate sanitation, water supply and hygiene are major causes of death in Nigeria. (http.//www.thisdaylive.com) In a related development, two students were reported to have died from contaminated water in Queen's College, Lagos, in March 2017. (Ugbodaga, 2017). Sanitary superintendents and inspectors no longer visit schools and hospitals in Western Nigeria on a routine bases. Open defecation, even into rivers, is still a common practice and is yet to be sufficiently tackled by government policies. According to UNICEF report, Nigeria ranks third among the top five countries in the world where the practice has persisted, compounded by inadequate supply of portable water. This dovetails into the untoward situation where "seventy-two per cent of the population …lack access to basic sanitation (which) is harmful to the environment and health of the people and often leave a legacy of disease and poverty". (http.//www.dailytrust.com.ng/daily/environment/40406-no-sewage-treatment- plant-in-nigeria) The failure of the government to provide hygienic water for a sizable segment the population directly correlates with the low level of sanitation and the continuous prevalence of water borne diseases in Western Nigeria.

3. Conclusion

This study has shown the intersection between the traditional mode of water supply and the pattern introduced by the British colonialists in Western Nigeria. Whereas natural sources like rain, rivers and stream, and man-made sources like ponds predominated during the pre-colonial times, covered tanks, wells and pipe-borne constructs were preferred by the colonialists. The colonial authorities ensured that their water supply policies favoured the latter, especially in government reserve areas and urban centres. The colonial order began with the construction of modest water tanks for the collection of rain water and cascaded into the sinking of wells and the harnessing of some streams and rivers for the supply of portable water. Shortly after independence in 1960, the Nigerian government, including the Western regional government maintained the water supply structure they inherited, but extended pipe-borne water to more areas. Besides public water fountains, a network of pipe was laid to supply water to some homes in the major towns. However, the supply of pipe-borne water has dwindled steadily since the 1980s. The reservoirs that facilitated water storage and dispensation have, largely, been abandoned. Very many homes, even in the urban centres, still rely on covered tanks and wells. In addition to these, rivers and streams have remained major sources of water in the rural area. The sinking of boreholes has also become very popular in the urban centres, especially among the elite. These private arrangements for water supply usually do not make provision for water treatment and, therefore, have not resulted in the eradication of water borne diseases in Western Nigeria.

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Assessing the Effects of E-Governance and its Application by the Independent National Electoral Commission during the 2019 General Election in Nigeria

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Abstract. This study assessed the effects of e-governance and its application by the Independent National Electoral Commission (INEC) during the 2019 general election in Nigeria. Specifically, the study looked into the application of e-governance and modern technology in the conduct of the 2019 general elections in Nigeria. It tried to look at the imports of technology in achieving set out goals by INEC. It also looked at the scope of e-governance and its advantages which have improved the quality of services of INEC, reduced paperwork, improved administration of electoral laws and a lot more. It further x-rayed how INEC deployed the use of the card reader in the process of the 2019 general election. Although there were some hiccups like breakdown of the card reader, inadequate training of the ad-hoc staff and poor sensitization of the people on the use of the device, there were a lot of successes like reduction of rigging and manipulation of figures and ensuring that an individual votes only once for a particular election. The research used both primary and secondary sources of data analysis. The primary sources consisted of the electorates who participated in the election, data from the Independent National Electoral Commission (INEC) which was the electoral body and reports from civil societies who directly participated in the exercise. Books, journals, the internet and other existing literature on the subject matter made up the secondary sources. The study recommends among others that the federal government should as matters of urgency ensure the strict application of e-governance and modern technology in the conduct of all subsequent elections in Nigeria without which such election should be nullified. The government should ensure that card readers and other devices used in the electoral process are of good quality in line with international best practices. This will prevent rigging and manipulation of election results among others.

Keywords: Government, E-Governance, Technology, Election, INEC

1. Introduction

The essence of the public service is to give meaning to the lives of the people who make up the population under administration. It attempts to secure the common good of all and taking into considerations all aspects of life. The major reason for its existence is to render services to the public. Services rendered to the public are considered to be effective and efficient if such services meet the need of the people in terms of quality, convenience, cost, time of delivery and if they are provided in an equitable and transparent manner to address and redress the service delivery laxity in the public sector. In the primitive era, the public service performed their functions using traditional mode of operation: records were kept manually making it more prone to errors and mutilation; the scope of operation were limited to the location of the organization with little or no knowledge about the external environment; and services were rendered at a slow pace at exorbitant rates.

With the increase in population and advancement in technology, the ineffectiveness and inefficiency of the traditional mode of operation adopted by the public service became more obvious. Electronic governance was thus introduced to tackle the challenges posed by the traditional mode of operation. Though e-governance implementation in Nigeria varies from level to level of government as well as agency to agency, there was actually an attempt at providing a unified, national framework of ICT adoption in governance.

Sunday (2014) stated that e-governance has become a necessary political mechanism in evaluating government's performances in many developed parts of the world. This shows that with the trend of globalization and technology which is now the order of the day, it has become pertinent for government to key into this approach in getting things done. The use of ICT in government businesses to promote government's roles in service delivery, public administration and promoting active participation in democracy has been gaining an impelling force in the global community (Heeks,

2010).

The need for adopting ICT in government, that is, E-governance, came as an awareness that no country or its government can function properly in the information or digital age without the use of the web and other mobile internet technologies. Seeing the importance of E-governance via ICT, the Nigerian Federal Government deemed it necessary for the country to have a national policy on ICT. According to Olatokun and Adebayo as cited in Nchuchuwe & Ojo (2015), the Federal Government of Nigeria, in 2001, announced ICT as a policy of national importance. This further culminated in the creation of the Nigerian Information Technology Policy in the same year. National Information Technology Development Agency (NITDA) was thus created in April, 2001 to implement the Nigerian Information Technology Policy and co-ordinate general IT development in the country. In 2007, the enabling Act - the National Information Technology Development Act - was enacted by the National Assembly and this act mandated NITDA to create a framework for the planning, research development, standardization, application, coordination, monitoring, evaluation and regulation of Information Technology practices, activities and systems in Nigeria (NITDA, 2017).
In terms of governance, the Nigerian Information Technology Policy holds that the government, through the National Information Technology Development Agency (NITDA) shall use IT as the major driving force to re-engineer and rapidly transform governance to interface with the needs of its citizenry by establishing transparent "Government Wide Information System (GWIS)" at national, state and local government levels. The major objectives of this policy includes: to replace traditional governance with electronic governance, create knowledge-based and Simple Moral Accountable Responsive and Transparent (SMART) governance, reduce bureaucracy, maximize productivity and quality, eliminate waste, increase efficiency, create an easy and free access to government information, and reduce the cost of service delivery (Nigerian National Policy For Information Technology, 2000).

In 2011, the Federal Government consequently created a new Ministry called the Ministry of Communications Technology which was saddled with the mandate of streamlining ICT development and progress in line with the nation's plan for E-government. In 2012, a National ICT draft policy was presented by the ministerial committee on ICT policy harmonization which included several policy recommendations and reports. The following are the policy thrust of the National ICT draft policy of 2012, as it pertains to E-government:

- To facilitate the implementation of e-governance initiatives.
- To develop frameworks and guidelines, including interoperability and e-government framework for the enhanced development and use of ICT in the government.
- To develop and implement ICT training programs for public sector employees, in connection with introduction of e-government and other digital functions within government offices.
- To coordinate the integration of national e-government network infrastructure and services.
- To promote e–government and other e-services that would foster broadband usage.

With the enabling act, various government agencies such as the Independent National Electoral Commission (INEC) embarked on the implementation of ICTs in their operations. The Independent National Electoral Commission was established by section 153 of the 1999 constitution of the Federal Republic of Nigeria to among other things organize elections into various political offices in the country. For the first time in Nigeria's electoral history, electronic voter authentication system with the aid of smart card readers, were deployed for the 2015 general elections. The use of the card readers for the purpose of accreditation of voters was one of the innovations introduced by the commission to improve the integrity of the electoral process. This didn't violate section 52 (2) of the Electoral Act 2010, as amended, or the 1999 Constitution as amended. Whereas section 52 (2) of the Electoral Act prohibits the use of electronic voting, the card reader is not a voting machine and wasn't used for voting. The card reader was used only for accreditation of voters and only accreditation data was transmitted by it (Independent National Electoral Commission, 2017).

However, the senate on Thursday, March 30,2017 passed amendments to the Electoral Act 2010, approving the use of electronic voting in future elections. It also approved that election results should be electronically transmitted to collation centers. The passage of the bill followed the consideration of the report of the Senate Committee on Independent National Electoral Commission on 'A bill for an Act to amend the Electoral Act No. 6, 2010 and for other related matters (SB 231 and SB 234)', (Odunsi, 2017).

The waves of electronic governance are rising through public organizations and public administration across the world. More and more government agencies are using Information and Communication Technology (ICT) especially the Internet or web-based network, to provide services between government agencies and citizens, businesses, employees and other non-governmental agencies (Fang, 2002).

In agreement with Fang (2002), Alshehri & Drew (2010) also added that the use of ICT is aimed at reducing costs, improving services, saving time and increasing effectiveness and efficiency in the public sector. Electronic governance and the Internet have made an essential change in the whole society structure, values, culture and the ways of conducting business by utilizing the potential of ICT as a tool in the daily work. The purpose of electronic governance is not only in the conversion of traditional information into bits and bytes and making it reachable via the internet websites or giving government officials computers or automating old practices to an electronic platform, but in the call for rethinking of the ways government functions are carried out today in order to

improve processes and integration.

REffat as cited in Mugambi (2013) said that ICT is increasingly used as a strategic tool to more efficiently support any Government's priorities and program delivery. In order to have a successful E-governance, the Information and Communication Technology (ICT) solutions which are at the very core of the electronic government infrastructure, have to be reachable by all citizens.

2. Objectives of the study

The objective of the study is to assess the effects of e-governance and its application by the independent national electoral commission during the 2019 general election in Nigeria.

The specific objectives are to:

- examine the application of e-governance and modern technology in the conduct of the 2019 general elections in Nigeria;
- ascertain the imports of technology in achieving set out goals by INEC;
- look at the scope of e-governance and its advantages which have improved the quality of services of INEC, reduced paperwork, improved administration of electoral laws and
- x-ray how INEC deployed the use of the card reader in the process of the 2019 general election.

3. Conceptual Clarification

3.1 The Concept of Electronic Governance

Quite a number of scholars have considered the concept of electronic governance thereby coming up with various definitions of the term.

E-Governance refers to how managers and supervisors utilize IT and Internet to execute their functions of supervising, planning, organizing, coordinating, and staffing effectively (Palvia & Sharma, 2007).

The application of the internet, web and telecommunications services in the administration of public services is referred to as E-governance or Electronic-governance (Nchuchuwe & Ojo, 2015).

According to Fang (2002), E-governance allows direct participation of constituents in political activities. It includes E-democracy, E-voting, and participating in political activities performed online. So, most broadly, the concept of E-governance covers government, citizens' participation, political parties and organizations, parliament and judiciary functions.

In the words of Fransz (2014), the complete transformation of the processes of governance using the implementation of information and communication technology is called E-governance.

According to Ojo as cited in Nchuchuwe & Ojo (2015), E-governance can be referred to as the application of information communication technology by the government to enhance accountability, create awareness and ensure transparency in the management of government business. It is a political strategy through which the activities of government are made known through the adoption of modern communication technology.

Electronic governance or e-governance was defined by Wikipedia (2017) as the application of Information and Communication Technology (ICT) for delivering government services, exchange of information, communication, transactions, integration of various stand-alone systems and services between government to customer (G2C), government to business (G2B), government to government (G2G) as well as back office processes and interactions within the entire government frame work.

From E-Governance: Concept and Significance (2007), E-governance is the use of technology to enhance the access to and delivery of government services to benefit citizens, business partners and employees. It is the application of ICT to the processes of government functioning for good governance. In other words, e-governance is the public sector's use of ICTs with the aim to improve information and service delivery, encourage citizen participation in decision-making and make government more accountable, transparent and efficient. E-governance is the application of ICT in government functioning to bring in SMART governance implying: simple, moral, accountable, responsive and transparent governance.

In the words of Priya & Dalakoti (2008), E-governance is the application of information and communication technologies to transform the efficiency, effectiveness, transparency and accountability of informational and transactional exchanges within the government, between government and national, state, municipal and local levels government agencies, citizen and businesses, and eventually empower citizens through access and use of information.

Kumar (2015) opined that E-governance applies to interaction between citizens, government organizations, public and elected officials, and includes democratic processes, open government and transparent decision making. It goes far beyond mere computerization of stand-alone back office operations. It is a means to fundamentally change how the government operates and this implies a new set of responsibilities for the machinery of the government.

3.2 Scope of Electronic Governance

E-Governance: there are four the types of interactions in E-governance which include the following:

- Government to Government (G2G)
- Government to Citizens (G2C)
- Government to Business (G2B)
- Government to Employees (G2E)

G2G (Government to Government): In this case, Information and communications Technology are at the periphery of government. This kind of interaction is only within the sphere of government and can be both horizontal i.e. between different government agencies as well as between different functional areas within an organization, or vertical i.e. between national, provincial and local government agencies as well as between different levels within an organization. The primary objective is to increase performance and productivity.

G2C (Government to Citizens): In this case, an interface is created between the government and citizens which enables the people to profit from efficient delivery of a large range of public services. This expands the availability and accessibility of public services on the one hand and improves the quality of services on the other. It gives citizens the choice of when to interact with the government, from where to interact with the government and how to interact with the government to show their grievances and approval. The primary purpose is to make the government, citizen-friendly.

G2B (Government to Business): Here, E-governance tools are used to encourage the business community – providers of goods and services – to seamlessly interact with the government. This creates room for a smooth and pleasant business environment that allows business to thrive. The objective is to cut red tape, save time, reduce operational costs and to create a more transparent business environment when dealing with the government. These measures help to provide a congenial environment to businesses to enable them to perform more efficiently.

G2E (Government to Employees): Government is unarguably the major employer and like any organization, it has to interact with its employees on a regular basis. This interaction is structured to be a two-way process between the organization and the employee. It is the presence of ICT that gives the government the seamless source to interact with these employees on regular basic, to support them, motivate and supervise their activities while ensuring optimum satisfaction to both sides.

3.3 Benefits of Electronic Governance

According to E-Governance, Concept and Significance (2007), ICT applications impact upon the structures of public administration systems. Technological advancements facilitate the administrative systems by enabling:

- Administrative Development
- Effective Service Delivery

Administrative Development: Administrative reforms, often, have focused on procedural details and restructuring of systems and processes of government organizations. The basic objective of these reforms is to enhance capacities of the systems. ICTs can be used and are being used now to give further impetus to the process. They help in the following manners:

Automation of Administrative Processes: A truly e-governed system would require minimal human intervention and would rather be system driven. While initially the solutions that were offered were quite primitive with poor information layout, inadequate navigation provisions, occasional disruption in services, periodic outdated content and little or no 'back office' support. However, technological advancements and increased pressure from citizenry have prompted improvements in these areas. Now administrative departments are computerized and connected through network. Software has been built and designed around government departments ensuring efficiency in operations. The departments have launched individual websites carrying information of their respective departments. This has enabled online carrying of operations and file movements. Budgeting, accounting, data flow, etc. has become easy. This has increased the efficiency of office operations and processes and has reduced unnecessary delays.

Paperwork Reduction: An immediate impact of automation would be on the paperwork. Paperwork is reduced to a greater extent with communication being enabled via electronic route and storage and retrieval of information in the electronic form. All this has led to the emergence of 'less paper office'. This concept is defined as an office situation where all the information (file and mail) amongst various functionaries is distributed online. The concept is where files and mails (information) are transmitted over wires to small computers at each employee's desk. Office work, such as, file movements, notings, etc. is computerized and documentation, report preparation, and databases are now maintained in computers.

Quality of Services: ICT helps governments to deliver services to the citizens with greater accountability, responsiveness and sensitivity. Quality of services improves, as now the people are able to get services efficiently and instantaneously. As volumes of transactions and information can be electronically handled and delivered over a wider area through the net and web, qualitative services become possible in least time, in least cost, in least difficulty and in greater convenience.

By ensuring online redress of grievances the accountability of officials is ensured. They have become sensitive to the issues affecting people. Monitoring by way of video teleconferencing has further facilitated central monitoring, reporting and face to face communication that has assured effective service delivery by the officials.

Elimination of Hierarchy: ICT has reduced procedural delays caused by hierarchical processes in the organization. Through Intranet and LAN, it has become possible to send information and data across various levels in the organization at the same time. Computerization and communication patterns facilitated by ICT have increased efficiency and have led to the involvement of all levels in decision-making.

Change in Administrative Culture: Bureaucratic structures have been plagued by characteristics aptly described by Victor Thompson as 'bureau-pathology'. From the days of New Public Administration, efforts have been made to find ways to deal with the pathological or dysfunctional aspects of bureaucratic behaviour and to make delivery of public services effective and efficient. With e-governance, public actions coming under public glare would certainly induce norms and values of accountability, openness, integrity,

fairness, equity, responsibility and justice in the administrative culture. Rather, administration would become efficient and responsive.

Effective Service Delivery: ICTs play an important role in effectively delivering services to the people. ICTs ensure:

Transparency: By dissemination and publication of information on the web. This provides easy access to information and subsequently makes the system publicly accountable. Also as web enables free flow of information, it can be easily accessed by all without any discrimination.

Economic Development: The deployment of ICTs reduces the transaction costs, which makes services cheaper. For example, rural areas suffer on account of lack of information regarding markets, products, agriculture, health, education, weather, etc. and if all this could be accessed online would lead to better and more opportunities and thereby prosperity in these areas.

Social Development: The access to information empowers the citizens. Informed citizens can participate and voice their concerns, which can be accommodated in the programme/ project formulation, implementation, monitoring and service delivery. Web enabled participation will counter the discriminatory factors affecting our societal behaviour.

Strategic Information System: Changing organizational environment and increasing competitiveness have put pressures on the performance of the functionaries. Information regarding all aspects need to be made available to the management at every point to make routine as well as strategic decisions. ICTs effectively enable putting such strategic information systems in place.

After the above-mentioned discussion on the significance of ICTs in governance, we will now highlight certain measures that will enable its effective implementation.

Furthermore, from E-Governance: Conceptual Framework (2007), E-governance is about reform in governance, facilitated by the creative use of Information and communications Technology. It is expected that this would lead to:

Better access to information and quality services for citizens: ICT would make available timely and reliable information on various aspects of governance. In the initial phase, information would be made available with respect to simple aspects of governance such as forms, laws, rules, procedures etc. later extending to detailed information including reports (including performance reports), public database, decision making processes etc. As regards services, there would be an immediate impact in terms of savings in time, effort and money, resulting from online and one-point accessibility of public services backed up by automation of back end processes. The ultimate objective of e-Governance is to reach out to citizens by adopting a life-cycle approach i.e. providing public services to citizens which would be required right from birth to death.

Simplicity, efficiency and accountability in the government: Application of ICT to governance combined with detailed business process reengineering would lead to simplification of complicated processes, weeding out of redundant processes, simplification in structures and changes in statutes and regulations. The end result would be simplification of the functioning of government, enhanced decision making abilities and increased efficiency across government – all contributing to an overall environment of a more accountable government machinery. This, in turn, would result in enhanced productivity and efficiency in all sectors.

Expanded reach of governance: Rapid growth of communications technology and its adoption in governance would help in bringing government machinery to the doorsteps of the citizens. Expansion of telephone networks, rapid strides in mobile telephony, spread of internet and strengthening of other communications infrastructure would facilitate delivery of a large number of services provided by the government. This enhancement of the reach of government – both spatial and demographic – would also enable better participation of citizens in the process of governance.

3.4 Challenges of Implementing Electronic Governance

According to Abasilim & Edet (2015), the following are considered as factors impeding the effective implementation of E-governance in Nigeria's public service:

Lack of ICT Infrastructure: This is a crucial challenge to the implementation of e-governance in Nigeria's public service. As it has been explained in the definition of e-governance above, it is the application of ICTs in the operations of government business. Nigeria's public service is still lacking in basic ICT infrastructure. For instance, some of the offices still lack common computers let alone the common skills for its operation. What you see in their daily activities is the traditional way of doing things. That is, they are still known for doing a lot of paperwork which if e-governance is embraced fully would have reduced. In a better case, you will see the combination of both the traditional way of doing things alongside the digital approach. There are still no access to internet networks in most public sector offices, no regular power supply and so on. All these pose a challenge to the implementation of e-governance in Nigeria's public service.

Attitude or Resistance to Change: This is also a challenge in the public sector. Most of them are still used to the old way of carrying out government activities. That is, they are still known to be working with a lot of papers, carrying files from one desk to the other or from one office to the other. Their resistance to e- governance implementation in their services is what has culminated in the poor rating of the implementation of e-governance in the public service. Some of the reasons for this, is that most of the public servants are not computer literate, not qualified, have little or no training in the installation, maintenance, designing and implementation of ICT infrastructure.

The challenges of e-governance in Nigeria are the same as with many other developing countries of the world. There appears to be a consensus among authors that the number one problem of e-governance implementation in Nigeria is poor internet and telecommunications infrastructures (Nchuchuwe & Ojo, 2015).

Omeire and Omeire as cited in Nchuchuwe & Ojo (2015) gave a detailed analysis of the challenges of e-governance implementation in Nigeria. They include:

Low ICT literacy rate: The low usage of ICTs by the Nigerian public serves as an impediment to the implementation of e-governance in Nigeria. Most Nigerians see the use of computers and the internet as very complex for them. Even among the educated class, ICT compliance is not high.

Lack of necessary regulatory/ legal framework: In spite of the various legislations and policies put forward to promote e-governance in Nigeria, the implementation has always been below expectations. Some of the ICT services from the government are not properly regulated, for instance, sending and receiving emails.

Poor ICT infrastructure: Internet service and telecommunications structure are still in their embryonic state in Nigeria. In addition, internet and telecommunication services are very expensive, thus, a large section of Nigerians who cannot afford these services are alienated from participating in e-governance.

Corruption: The implementation of e-governance in Nigeria is not spared from the tentacles of the hydra–headed monster called corruption. Just as it is with a typical government policy in Nigeria, e-governance has had most of its execution stalled because of the pervasiveness of corruption. Since e-governance has the capability of reducing corruption, the forces of corruption in government establishments will oppose and do everything they can to ensure its failure.

Lack of committed leadership: Since the idea of e-governance implementation and the national ICT policy was conceived in 2001, neither the previous and present governments have demonstrated the strong political will and commitment to see to its success. The interests of the leadership over the time have been anything but passive. The policy is not given the adequate attention it requires for its success. - Epileptic power supply: The perennial problem of unstable electricity has further compounded the accessibility of the web in Nigeria by the public. Likewise, the situation has made internet services costly because of the use of "generators" to power cyber cafes.

Bureaucratic Bottlenecks: Red-tape is a huge impediment to the flexibility which e-governance proposes. With the insistence on adhering to unneeded due processes, rules and regulations, most of which are duplicated, the purpose for e-governance is defeated.

This is because e-governance, when implemented, ensures a very speedy, flexible system that gets rid of time wasting and all forms inefficiency. Thus, the continued practice of bureaucratic bottlenecks becomes counter-productive to e-governance.

4. The Application of Electronic Governance by the Independent National Electoral Commission (INEC)

Having understood how e-governance works in the interest of the society, we looked at how it improved the processes of electioneering in the Nigerian State. According to Agba, Ochimana and Abubakar (2013), Public Service is the activities of government employees and its institutions aimed at formulating and implementing governmental policies and programmes for the interest of the masses (Public). Ezeanni (2006) goes on to say that Public Service has to do with the totality of services that are organized under government.

The Independent National Electoral Commission was established by section 153 of the 1999 constitution of the Federal Republic of Nigeria on 5th August, 1998 by decree No. 17 of that year by the Federal Military Government to among other things organize elections into various political offices in the country.

The functions of INEC as contained in Section 15, part 1 of the Third schedule of the 1999 Constitution (as amended) and section 2 of the Electoral Act 2010 (as amended) include the following:

- Organize, undertake and supervise all elections to the offices of the President and Vice-President, the Governor and Deputy Governor of a State, and to the membership of the Senate, the House of Representatives and the House of Assembly of each state of the federation;
- Register political parties in accordance with the provisions of the constitution and act of the National Assembly;
- Monitor the organization and operation of the political parties, including their finances, conventions, congresses, and party primaries;
- Arrange for the annual examination and auditing o the funds and accounts of political parties, and publish a report on such examination and audit for public information;
- Arrange and conduct the registration of persons qualified to vote and prepare, maintain and revise the register of voters for the purpose of any election under this constitution;
- Monitor political campaigns and provide rules and regulations which shall govern the political parties;
- Conduct voter and civic education;
- Promote knowledge of sound democratic election processes; and
- Conduct any referendum required to be conducted pursuant to the provision of the 1999 constitution or any other law or Act of the National Assembly.

The mission of INEC is to serve as an independent and effective Election Management Bodies committed to the conduct of free, fair and credible elections for sustainable democracy in Nigeria.

The vision of INEC is to be one of the best Election Management Bodies (EMB) in the world that meets the aspirations of the Nigerian people.

Autonomy, transparency, integrity, credibility, impartiality, dedication, equity, excellence and teamwork are the values

that guide INEC in the performance of its duties.

Alebiosu (2015) contended that a number of technologically based reforms (e.g. biometric Register of Voters, Advanced Fingerprints Identification System) were embarked upon by Prof Attairu Jega of the Independent National Electoral Commission (INEC). These technologically based reforms by INEC were further taken to another height in the 2015 general elections with the use of the Permanent Voter's Card (PVC) and introduction of Smart Card Reader technology, a device used to scan the PVC in order to verify the identity of a voter in a polling booth. The smart card reader was one of the greatest innovations of biometric verification technology and a controversial crucial aspect of the 2015 general elections in Nigeria. Concerned about the massive electoral fraud witnessed in the past general elections in Nigeria, INEC deployment of the card reader in 2019 general elections was to ensure a credible, transparent, free and fair election in order to deepen Nigeria's electoral democracy. However, the use of the electronic device in the 2015 general elections generated debate among election stakeholders before, during and it became a major part of the 2019 general election.

In spite of the assurances given by INEC to address the issues that aroused with the card readers after it was used in the 2015 general elections, in 2019, we also witnessed the inability of the device to deliver effectively in a large number of polling units especially in the Presidential and National Assembly Elections in the country. It will be recalled that Prof. Jega enumerated some of the challenges that the card readers encountered during the 2015 general elections as:

- The level of awareness among the electorates about the card reader was poor.
- The training given to the ad hoc and INEC staff on the use of the card reader was inadequate.
- A large number of the trainees did not have the opportunities of operating the device.
- Card reader breakdown was also witnessed during the elections.
- A number of the smart card readers were not smart enough to function effectively.
- Wherein the card readers functioned, a few of the devices were confronted with the challenge of PVC authentication and biometric data verification of the voters in the polling units.

5. Challenges and successes of E-governance during the 2019 general election

Despite the inability of the smart card reader to function effectively and according to plan, it was recorded also in all the zones of the country as visited that people were subjected to manual voting to avoid disenfranchising a large chunk of the Nigeria voting population; the indiscretion of some INEC officials to allow for manual authentication of registered voters and the issue of power failure on some of the machines, systemic and structural challenges were also a problem to the total execution of the mandatory policy of the use of the card reader for the 2019 general election in Nigeria. Fatai Abiodun in his paper on the 2019 general election in Nigeria examined the role of technological devices introduced in the electoral process and their challenges in improving the integrity of the 2019 elections. Although consumed by technical hitches such as flopping of card readers, delay in accreditation and voting, the failure of polling officials to operate the technology efficiently, he believes that the use of the technology in the 2019 elections improved the quality of the election and also deepened democracy in Nigeria.

It is noteworthy that INEC through the introduction of the card reader took election and electioneering processes in Nigeria to another level which was technologically befitting. The card reader however, changed the perception of many Nigerians towards elections.

The results of the presidential election as announced in the early hours of 27 February 2019 were as follows:

Candidate	Running mate	Party	Votes	%
Muhammadu Buhari	Yemi Osinbajo	All Progressives Congress	15,191,847	55.60
Atiku Abubakar	Peter Obi	People's Democratic Party	11,262,978	41.22
Felix Nicolas	Ado Baba	Peoples Coalition Party	110,196	0.40
Obadiah Mailafia	Nasiru Tanimowo Nurain Bolanle	African Democratic Congress	97,874	0.36
Gbor John Wilson Terwase	Gerald Chukwueke Ndudi	All Progressives Grand Alliance	66,851	0.24
Yabagi Sani	Olateru Olagbegi Martin Kunle	Action Democratic Party	54,930	0.20
Akhimien Davidson Isibor	Hamman Ibrahim Modibbo	Grassroots Development Party of Nigeria	41,852	0.15
Ibrahim Aliyu Hassan	Adeleke Adesoji Masilo Aderemi	African Peoples Alliance	36,866	0.13
Donald Duke	Shehu Musa Gabam	Social Democratic Party	34,746	0.13
Omoyele Sowore	Rufai Rabiu Ahmed	African Action Congress	33,953	0.12
Da-Silva Thomas Ayo	Muhammad Aisha Abubakar	Save Nigeria Congress	28,680	0.10
Shitu Mohammed Kabir	Olayemi Memunat Mahmud	Advanced Peoples Democratic Alliance	26,558	0.10
Yusuf Mamman Dantalle	Prince Duru Nwabueze	Allied Peoples' Movement	26,039	0.10
Kingsley Moghalu	Abdullahi Umma Getso	Young Progressives Party	21,886	0.08
Ameh Peter Ojonugwa	Edun Kehinde	Progressive Peoples Alliance	21,822	0.08
Isaac Babatunde Ositelu	Nafiu Muhammad Lawal	Accord Party	19,219	0.07
Fela Durotoye	Abdullahi Khadijah Iyah	Alliance for New Nigeria	16,779	0.06
Bashayi Isa Dansarki	Adepoju Oluwatoyin Grace	Masses Movement of Nigeria	14,540	0.05
Osakwe Felix Johnson	Mohammed Alhaji Ali	Democratic People's Party	14,483	0.05

Abdulrashid Hassan Baba	Uchendu Uju Peace Ozoka	Action Alliance	14,380	0.05	
Nwokeafor Ikechukwu Ndubuisi	Ali Abdullahi	Advanced Congress of Democrats	11,325	0.04	
Maina Maimuna Kyari	Oluwole Yetunde Folake	Northern People's Congress	10,081	0.04	
Victor Okhai	Iyan Tama Hamisu Lamido	Providence Peoples Congress	8,979	0.03	
Chike Ukaegbu	Safiya Ibrahim Ogoh	Advanced Allied Party	8,902	0.03	
Oby Ezekwesili	Galadima Ganiyu Oseni	Allied Congress Party of Nigeria	7,223	0.03	
Ibrahim Usman Alhaji	Nwafor-Orizu Onwa	National Rescue Movement	6,229	0.02	
Ike Keke	Johnson Omede	New Nigeria People's Party	6,111	0.02	
Moses Ayibiowu	Idoko Michael Emaiku	National Unity Party	5,323	0.02	
Awosola Williams Olusola	Seiyefa Fetepigi	Democratic Peoples Congress	5,242	0.02	
Muhammed Usman Zaki	Akpan Tom Ezekiel	Labour Party	5,074	0.02	
Eke Samuel Chukwuma	Musa Hadiza Aruwa	Green Party of Nigeria	4,924	0.02	
Nwachukwu Chuks Nwabuikwu	Tijjani Aisha Ali	All Grassroots Alliance	4,689	0.02	
Hamza al-Mustapha	Opara Robert	Peoples Party of Nigeria	4,622	0.02	
Shipi Moses Godia	Okwuanyasi Abiola Kika Shaliat	All Blended Party	4,523	0.02	
Chris Okotie	Binutu Adefela Akinola	Fresh Democratic Party	4,554	0.02	
Tope Fasua	Yakubu Aminu Zakari	Abundant Nigeria Renewal Party	4,340	0.02	
Onwubuya	Ahmad Muhammad Nourayni	Freedom And Justice Party	4,174	0.02	
Asukwo Mendie Archibong	Ite Donald-Ekpo	Nigeria For Democracy	4,096	0.01	
Ahmed Buhari	Nwagu Kingsley Philip	Sustainable National Party	3,941	0.01	
Salisu Yunusa Tanko	James Funmi	National Conscience Party	3,799	0.01	
Shittu Moshood Asiwaju	Okere Evelyn	Alliance National Party	3,586	0.01	
Obinna Uchechukwu Ikeagwuonu	Omotosho Emmanuel	All People's Party	3,585	0.01	
Balogun Isiaka Ishola	Shuaibu Muhammad	United Democratic Party	3,170	0.01	
Obaje Yusufu Ameh	Sule Olalekan Ganiyu	Advanced Nigeria Democratic Party	3,104	0.01	
Chief Umenwa Godwin	Ibrahim Saheed Olaika	All Grand Alliance Party	3,071	0.01	
Israel Nonyerem Davidson	Hassan Dawud Jidda	Reform and Advancement Party	2,972	0.01	
Ukonga Frank	Musa Saidu Shuaibu	Democratic Alternative	2,769	0.01	
Santuraki Hamisu	Ufondu Chinwe Florence	Mega Party of Nigeria	2,752	0.01	
Funmilayo Adesanya-Davies	Mercy Olufunmilayo Ibeneme	Mass Action Joint Alliance	2,651	0.01	
Gbenga Olawepo-Hashim	Agwuncha Nwankwo Arthur	Peoples Trust	2,613	0.01	
Ali Soyode	Abdullahi Balkisu Mustapha	Yes Electorates Solidarity	2,394	0.01	
Nsehe Nseobong	Abuh Mohammed	Restoration Party of Nigeria	2,388	0.01	
Ojinika Geff Chizee	Yakubu Usman U.	Coalition for Change	2,391	0.01	
Rabia Yasai Hassan Cengiz	Uhuegbu Chineme Justice	National Action Council	2,279	0.01	
Eunice Atuejide	Bello Muhammad Jibril	National Interest Party	2,248	0.01	
Dara John	Abubakar Salisu	Alliance of Social Democrats	2,146	0.01	
Fagbenro-Byron Samuel Adesina	Ado Ummar Abbas	Kowa Party	1,911	0.01	
Emmanuel Etim	Adeola Zainab Hazzan	Change Nigeria Party	1,874	0.01	
Chukwu-Eguzolugo Sunday Chikendu	Salihu Iman Aliyu	Justice Must Prevail Party	1,853	0.01	
Madu Nnamdi Edozie	Adamu Abubakar	Independent Democrats	1,845	0.01	
Osuala Chukwudi John	Muhammad Falali	Re-build Nigeria Party	1,792	0.01	
Albert Owuru Ambrose	Yahaya Shaba Haruna	Hope Democratic Party	1,663	0.01	
David Esosa Ize-Iyamu	Kofar Mata Maryam Umar	Better Nigeria Progressive Party	1,649	0.01	
Inwa Ahmed Sakil	Nkwocha Echemor Nkwocha	Unity Party of Nigeria	1,631	0.01	
Akpua Robinson	Ahmadu Umaru	National Democratic Liberty Party	1,588	0.01	
Mark Emmanuel Audu	Okeke Moses	United Patriots	1,561	0.01	
Ishaka Paul Ofemile	Vincent Akinfelami Akinbanai	Nigeria Elements Progressive Party	1,524	0.01	
Kriz David	Azael Vashi Chechera	Liberation Movement	1,438	0.01	
Ademola Babatunde Abidemi	Tataji Aisha Asabe	Nigeria Community Movement Party	1,378	0.01	
A. Edosomwan Johnson	Nasiru Mohammed	National Democratic Liberty Party	1,192	0.00	
Angela Johnson	Zayyanu Abubakar	Alliance for a United Nigeria	1,092	0.00	
Abah Lewis Elaigwu	Omohimua Michael Okojie	Change Advocacy Party	1,111	0.00	
Nwangwu Uchenna Peter	Adebiwale Olaurewaju Odunlade	We The People Nigeria	732	0.00	
Total			27,324,583	100.00	
Valid votes			27,324,583	95.49	
Invalid/blank votes			1,289,607	4.51	

Total votes	28,614,190	100.00
Registered voters/turnout	82,344,107	34.75
Source: Independent National Electoral Commission		

Unsurprisingly, voter turnout was abysmally low in comparison with the previous elections. With a 35% voter turnout going by the INEC records as shown above, the country recorded the lowest turnout on the continent, which speaks volume of the growing public disenchantment and mistrust in the electoral process (Ojetunde, 2019). The 2019 general election in Nigeria was adjudged fair because some electorates voted due to the application of the Card Reader while some other people were allowed to vote manually although this method had credibility issues; it was still used to identify and authenticate genuine voters. This led to the following:

Nigerians still calling for a total e-procedure that will see to a total form of e-voting that would create room for a free and fair electoral result that can be trusted.

Demanding for a reduction in the series of election rigging and manipulations which has characterized the Nigerian elections in the past years.

With the card reader and PVC, the one man one vote mantra was achieved because it blacklisted and left out people who double registered or had in mind to vote twice during a particular election.

The card reader ensured that the number of duly accredited voters were the same number that voted or less and not more than.

Premium Times through its correspondents on ground found that some of the INEC officials had issues with the usage of the smart card readers due to its features and inability to operate the machines. According to Premium Times, in Polling Unit 006 at Kofar Kudu Primary School in Gezawa Local Government of Kano State, voting did not start until 11:30 am as a result of a smart card reader malfunction. In Polling Unit 011 of Shiyar Ajiya, Tambuwal/Shinfiri, in Tambuwal Local Government of Sokoto State, there was a problem with the card reader that disrupted the voting from 11:00 am to 11:21 am.

6. Recommendations

- The federal government should as a matter of urgency ensure the strict application of e-governance and modern technology in the conduct of all subsequent elections in Nigeria without which such election should be nullified.
- The government should ensure that the entire electioneering process should be technologically advanced and all information thereto be electronically transmitted by INEC.
- To ensure that the quality of services of INEC is improved, the government should ensure that permanent and ad-hoc personnel of INEC are properly trained by ICT experts on how to operate some of the electronic gadgets for the elections and that the electoral laws are strictly implemented.
- The government should ensure that card readers and other devices used in the electoral process are of good quality in line with international best practices. This will prevent rigging and manipulation of election results.

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Social Welfare Policy and Juvenile Homes in Lagos State, Nigeria

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Abstract. Social welfare policies are designed to enhance the welfare of citizens and help them cope with the social problems of changing conditions. Establishment of custodian homes serve as one of the welfare strategies for reformation, rehabilitation and reintegration of delinquent juveniles in Nigeria. Lagos State government formulated the Child Right Law of 2007 in pursuit of the welfare of delinquent juveniles in custodian homes, the implementation of which appears to be challenged by several factors. The study therefore, examined the Social Welfare Policy provisions and the welfare of wards in Juvenile custodian homes in Lagos State, Nigeria. The study adopted exploratory and case study designs. Study population was 1,115 comprising civil servants in the Department of Youth Development (19), Juvenile homes staff (76) and juveniles in the custodial homes in Lagos state (1,020). Multi stage and stratified random sampling techniques were adopted in the selection of respondents. Taro Yamane formula was determine/set the sample size of 658. The data collection instruments were structured interview guide and validated questionnaires. The reliability test of the questionnaire yielded a Cronbach Alpha value ranging from 0.65 to 0.85. The response rate of the questionnaires was 96%, while 16 interviews were conducted with key informants. Qualitative data were content analyzed while descriptive statistics (mean and standard deviation) were used in analyzing quantitative data. The study found that social welfare policy with these indicators (feeding, accommodation, beddings, health, education, vocation and recreation) is the major method/instrument of government to reform, rehabilitate and reintegrate delinquent juveniles in custodian homes in Lagos State (x=4.60, SD=.510). The implementation of the Child Right Law with regards to the welfare of custodian juveniles was rated moderate with these ratings on the indicators; feeding (x=3.35, SD=1.38), accommodation (x=3.35, SD=1.34), beddings (x=3.30, SD=1.41), health (x=3.27, SD=1.31), education (x=3.18, SD=1.38) and vocation and recreational facilities (x=3.21, SD=1.42). Findings from interview revealed that the more priority given to social welfare policy, the more achievement of reformation, rehabilitation and reintegration of delinquent juveniles in custodian homes. The study concluded that the nature of implementation and operations of social welfare policy serves as a major impetus to achieving the purpose for which the custodian homes were established. The study recommended that implementation of social welfare policy must be prioritized at the custodian homes. The welfare of juveniles in the homes must be constantly reviewed and monitored and there should be wholesome reintegration process for released juveniles in order to avoid relapse.

Keywords: Child welfare, Custodian Homes, Social Welfare Policy, Social Welfare Services

1. Introduction

Much is required in the establishment, operation and maintenance of a comprehensive child welfare system of any country especially children in care homes. Care of juvenile particularly those in contact with the law and retained in custodian homes generally suffer from inadequacies. (Borstal Institution and Remand Centres Act 2004; Bella, Atilola & Onigbodu 2010; Adam 2013; Bamgbose 2014 & Shajobi-Ibikunle 2014). Unfortunately, issues concerning children's welfare, rights and opportunities and care of custodian children fall outside the purview for which the Nigeria National Assembly can make exclusive laws binding across states of the federation. (Huntley 2013; Adeboye 2015; Ahmed, Alhassan &Alshammari 2017 & Akintayo 2021).

It is therefore imperative to look beyond much that is required in establishing and maintaining valid and legitimate welfare packages, functional policy for the children in care homes who were picked for reasons like: beyond parental control, lack of family and parental care, need for shelter, abused and child offenders. This is even of greater concern, given the critical importance of shaping the personality, behaviour and values of future citizens in care homes, because while in custody, children still have to be treated in conformity with domestic laws and policies.

This study is embarked upon with a view to examining social welfare policy implementation on the welfare situation of children in the custodian homes in Lagos state.
This paper contains eight sections and the following are the breakdown of the expected sections for this study: introduction, methodology, literature review, theoretical framework, data presentation, discussion of findings, conclusion and recommendations.

2. Literature Review

2.1 Child/Juvenile

The Declaration of the Rights of the Child adopted by the General Assembly of the United Nations on 20 November 1959 stated that "the child by reason of his physical and mental immaturity needs special safeguards and care including appropriate legal protection before as well as after birth". United Nations Convention on the Rights of the Child (CRC) defines a child as 'any person under the age of 18 years, unless under the law applicable to the child, maturity is attained earlier' (Jones, Presler-Marshall, Cooke & Akinrimisi 2012). In Article 2 of the African Charter on the Rights and Welfare of the Child (African Children's Charter), a child is defined more concisely as 'every human being below the age of eighteen years'. The Nigerian Constitution does not define a child, but in other legislation, individuals are classified into four categories: infants, children, young persons and adults. However, with regards to *Section 2 of the Children and Young Persons Law* of Lagos State (1973), which provides for the welfare of the young and treatment of young offenders, "a child is a person under the age of fourteen (14) years while a young person is one who has attained the age of fourteen years but is under the age of seventeen years. The Nigerian Labor Act (1974) considers "a child as a person below fifteen (15) years of age", while the National Child Welfare Policy (1989) defines "a child as anybody who is twelve years of age and below".

Also, *Section 274 of the Childs Rights Act* (2003) defines a child as a person who has not attained the age of eighteen (18) years. Children are the most vulnerable members of any community; they are fragile, frail, innocent, naïve, defenseless and often oblivious of danger. They are naturally incapable of enforcing their rights and usually oblivious of them. Thus, the child is viewed as a vulnerable and dependent being, deserving of special care.
The Child Right Act establish that a child under the age of seven years does not have criminal responsibility, from 7 to 12 years, a child can only be found responsible if it can be proved that he/she had the capacity to know that the act or omission should not have been carried out. Above the age of 12, the person is deemed as fully responsible for the act or omission.

This perception of child justice gave rise to the creation of a different track within the criminal justice system to handle cases of children and other young persons who violate the law. But the law is usually more specific in its definition of a child. (Akwara, Soyibo &Agba 2010;Children in Conflict with the Law2006;UNICEF 2006; Alemika &Chukwuma 2001).

Hence, it is safe to conclude that a child across Nigeria is anyone who is less than 18 years of age, since all age brackets according to the different laws and practices are bellow 18years. Age is a prominent attribute in efforts by social scientists to bring order and predictability to our understanding of human behavior (Hutchison 2011 and UNICEF 2003).

2.2 Child Welfare Policy

Child Welfare is a specialized field of practice with a focus on the protection and welfare services of a nation on behalf of its children, including its educational system, medical services, parks and recreational facilities, even its road, highways and families (Atilola, 2012 and Charles, Ikoh, Iyamba & Charles, 2005). Family is inclusive in this list because every child grows best within his/her own family, it is therefore the reason why any policy, program or services that supports the family ought to also to support child welfare. Children have needs in common with adults, but their dependency on adults particularly in the first few years brings additional specific needs. "Being born human is not a sufficient condition for becoming human", the latter requires a long process of socialization and education (Ugwuoke, & Onyekachi, 2015, Merto-Metibobo, 2009 and Muhammed, Salawu, Adekeye, Ayinla, & Adeoye, 2009).

Helping the vulnerable population develop to their full potential is an attractive idea with expansive common-sense. Vulnerable and socially silenced children, have very few options for protecting themselves. Hence, available reports (Shinkman 2018&UNESCO 2008) indicate that Nigerian children are highly vulnerable due to many factors like: politics, economic, religion, traditional practices and social factors which often result mostly in delinquent behaviours (Shireman, 2015, Mallon & Hess, 2014; Child Welfare Information Gateway 2012; Blau & Abramovitz 2004; Kohl, Barth, Hazen, & Landsverk, 2005).

Therefore, the welfare of any child connotes activities, services and program that are focused on ensuring that all children live in safe, permanent and stable environments that support their well-being. Child welfare simply connotes response specifically to the needs of children. Its focus is to protect children from every form of ill treatment and ensure that children grow up in circumstances consistent with the provision of safe and effective care; and ability to take action (s) that enables all children to have the best outcomes. (Jones, Presler-Marshall, Cooke, N., & Akinrimisi, 2012)

Child Welfare is a critical government responsibility which includes protecting children from abuse and neglect, and ensuring that children have safe, stable, and permanent living situations. It also involves providing social services to children and youth whose parents and/or communities cannot adequately provide or care (Yemi, 2009 and Blau & Abramovitz 2004).

2.3 Social Welfare Policy and Social Services

The socialist argument of social welfare policy as described by Shiffman & Smith (2007) is that its benefits are a gift from the state, 'a genuine act of governmental benevolence, and true manifestation of socialist humanism'. Social welfare policy and program is concerned with human welfare which is "a state or condition of well-being" of every citizen of a state. Scholars say that the opposite of a condition of social well-being is "social ill fare". This study adheres to the definition of the concept "as a state or condition of human well-being that exists when social problems are managed, when human needs are met, and when social opportunities are maximized" (Ahmed, Alhassan & Alshammari, 2017; Blau & Abramovitz 2004, Ireje 2017, Inter social welfare and welfare concept. 2017).

United Nations in (1967) defines social welfare as a body of activities designed to enable individuals, families, groups and communities to cope with the social problems of changing conditions. It also stated that social welfare is a proactive means of addressing fundamental problems of social life such as health conditions, environmental hazards, poverty, homelessness, urban slums, urban risks etc. United Nations believed that every nation must be committed to the obligation of delivering efficient social welfare and social service programs (UNICEF, 2018)

Instrumental to the implementation of social welfare programs of the government is social service which includes: care of the elderly, juvenile delinquents, indigent children, prisoners, ex-convicts, health care services usually rendered by government officials to the general public, infant, children, the older adults, people with disabilities, visual or auditory and other vulnerable members of the society and others. While modern society added more to the duties and responsibilities of the state in terms of welfare services and social policies contained in the welfare program of government, social services rendered by government are expected to touch every segment of society, particularly the needy. Social services are not usually restricted to the public sector; it can as well be undertaken by voluntary organizations. When undertaken by voluntary organizations, they are expected to conform to the policies and program of the government where they operate (Blau & Abramovitz 2004, Bammeke & Durowade 2006).

Social welfare programs exist at different levels; it can apply to individuals, families, associations, organizations, communities and even the society as a whole, because social ill fare can exist at all levels, only that experiences and circumstances differ and mode of management differs as well. And any society that can manage their social challenges better than others is said to have a higher degree of social welfare policy.

Hence, societies that fail or are still struggling with providing required education, job opportunities and other means by which people can realize their potential often have high rates of crime and violence as people seek alternative and mostly illegitimate means of improving their social status, all mentioned are peculiar to the developing countries of the world including Nigeria.

3. Theoretical Framework

3.1 The Rehabilitation Theory

This theory stresses on the best interest of the child that promotes treatment based on the individual with attention on elements such as behavioral modification, education and integration with society (Campbell 2012). This theory is said to have breathed life to the juvenile criminal justice system and courts for children across the world, due to focuses on personal change in the child offender for discontinuity of all forms of criminal activities, in as much as the child offender's actions can be interpreted as an effect of his or her failure to adhere to societal rules, then rehabilitation process must convince him or her of accepting and living with societal norms and values like every other member of the society (Barron, 1954).

This theory proposed therapies and session of behavioral control which includes: psychiatric therapy, counseling, vocational training, better education, drug-rehabilitation programs and any other techniques based on scientific methods that can reduce or totally exterminate recidivism (Cragg, 1992). Therefore, for child offenders, the rehabilitation theory concentrates more on the individual child and less on society in that it enables them to have a more constructive role once and for all upon their return to society (Elrod & Ryder, 2005 and Sherman, 2002; Nolan, 2002).

3.2 Application of the Rehabilitation Theory

This theory therefore, highlights the relevance of the establishment of custodial institution as a means to fulfilling the desired requirements that protect the best interest of juvenile in behavioral change and societal acceptance. The rehabilitation theory is fitting for child offenders being kept in a separate detention institution different from that of adult because children are a category entirely different from adult offenders. Child offenders in general have better prospects for rehabilitation compared to adults for a variety of reasons (Horowizt, 2000). One of the main reasons is because children have a lower 'guilt-factor' than adult offenders, also Huss (2008) stated that the various laws, conventions and treaties views children as free from blameworthiness or the consequences of the crime committed as determined by many of the laws and conventions that any child under a specific age group (7 years to 12, 14 and 17) cannot be considered responsible and incapable of forming criminal intent. It is thus obvious that a child who has breached the law should not be treated as an adult offender. Child offenders cannot also be presumed to be public enemies; it is actually the public that should try to understand, guide and protect them (Waber, Calson, Mann, Merola & Moylan 1984). This therefore, raises the realization of the need for a proper functioning of the existing custodial institutions saddled with the responsibility of juvenile delinquent wellness.

4. Methodology

The nature of this research work led to the adoption of a mixed method which is the use of both quantitative and qualitative approach, exploratory and case study designs were adopted. Study population was 1,115 comprising civil servants in the Department of Youth Development (19), Juvenile homes staff (76) and juveniles in the custodial homes in Lagos state (1,020). Multi stage and stratified random sampling techniques were adopted in the selection of respondents. Taro Yamane formula was determine/set the sample size of 658. The data collection instruments were structured interview guide and validated questionnaires. The reliability test of the questionnaire yielded a Cronbach Alpha value ranging from 0.65 to 0.85. The response rate of the questionnaires was 96%, while 16 interviews were conducted with key informants. Qualitative data were content analyzed while descriptive statistics (mean and standard deviation) were used in analyzing quantitative data.

Table 1: List of Custodial Homes operated by Lagos State

S/N	Names Of Juvenile Custodial Institution/ Centres
1	Rehabilitation and Training centre, Majidun
2	Vocational Rehabilitation Centre for Disabled Person, Owutu
3	Rehabilitation and vocational Centre, Isheri
4	Special Correctional Centre for Boys, Oregun
5	Special Correctional Centre for Girls, Idi-Araba
6	Correctional Centre, Idi-Araba
7	Children Centre, Idi-Araba
8	Correctional Centre for Junior Boys, Birrel, Yaba
9	Correctional Centre for Senior Boys Isheri
10	Ketu Special Children Centre
11	Destitute Camp, Oko-Baba, Abeokuta Strt, Ebute Meta.

Source: *Ministry of Youth and Social Development (2021).*

Table 1: List of Registered Rehabilitation Homes Operating in Lagos State

S/N	NAMES AND ADDRESS
1	Destiny Trust Home, TDT Centre, Brilla FM strt, off Tinubu Road, Ibogu-Lekki
2	Child Upliftment Association, 36, Amity strt, Fdiso Estate, Ibeju-Lekki
3	Street Child Care & Welfare Initiative, 16 Akinwunmi strt, Alagomeji, Yaba
4	Almighty God Compassion Care Home,1 Aminu Jimoh off Governors Road, Ikotun Lagos
5	Bosco Boys Street Home, 55/56 Adeyemo Omole Phase II Lagos
6	Grace Springs Rehabilitation Home, Oppo Radio Nigeria, Ibeshe, Ikorodu
7	Child Life Line. Ajose Bus Stop, Ibese Road, Ikorodu Lagos
8	So-Sad Charity Homes for Vulnerable Persons. 55 Ibro Way, Hossana Estate, Ago Palace Way, Okota.
9	Echoes of Mercy and Hope Foundation. 7, Ogidi Street Mende, Maryland Lagos.
10	Centre for Destitute Empowerment International. 8, Makanjuola Close, Paiko Idimu, Alimosho LGA.

Source: Ministry of Youth and Social Development, Research and Development Unit Lagos State (2021).

Data Presentation

Question One: examine the credibility Social Welfare Policy as an instrument that help citizens cope with the social problems of changing conditions, juvenile inclusive.

Table 3: the credibility Social Welfare Policy as an instrument that help citizens cope with the social problems of changing conditions, juvenile inclusive

Social Welfare Policy as changing agent	SA Freq. (%)	A Freq. (%)	U Freq. (%)	D Freq. (%)	SD Freq. (%)	Mean	Std. Dev.
Social welfare policy are life support for every state	48 (52.2)	44 (47.8)	-	-	-	4.52	.502
Social welfare policy is designed to enhance the welfare of citizens including juveniles.	69 (75)	20 (21.7)	3 (3.3)	-	-	4.71	.520
The Lagos state child's rights law of 2007 consolidates all legislations relating to the protection and welfare of the child	56 (60.9)	36 (39.1)	-	-	-	4.60	.490
The child's rights law of 2007 as well considers the welfare of juvenile in custodian homes..	61 (66.3)	31 (33.7)	-	-	-	4.66	.475
The Lagos state child's rights law stated that every individual, institution and body responsible for the care or protection of children shall conform with the standards particularly in the areas of safety, health, welfare, and suitability of their staff and competent supervision	50 (54.3)	39 (42.4)	3 (3.3)	-	-	4.51	.564
Average Mean						**4.60**	**.510**

Source: Field Survey, 2021

Decision rule: *if mean is ≤ 1.49 =very low, 1.5 to 2.49 = low, 2.5 to 3.49 = moderate, 3.5 to 3.9 = high, 4.0 to 5.0 = very high*

Table 3, the result on the credibility Social Welfare Policy as an instrument that help citizens cope with the social problems of changing conditions, juvenile inclusive indicated that most of the respondents agreed that social welfare policies are the life support for every state (52.2%). They recognize that Social welfare policy is designed to enhance the welfare of citizens including juveniles (75%). The respondents also confirmed that Lagos state child's rights law consolidates all legislations relating to the protection and welfare of the child (60.9%). Furthermore, they agreed that the child's rights law of 2007 as well considers the welfare of juvenile in custodian homes. (66.3 %). Lastly, they also concurred that the Lagos state child's rights law stipulates that every individual, institution and body responsible for the care or protection of children shall conform with the standards particularly in the areas of safety, health, welfare, and suitability of their staff and competent supervision (54.3%). From the results, the responses recognize the credibility Social Welfare Policy as an instrument that help citizens cope with the social problems of changing conditions, juvenile inclusive was very high (Mean=4.60).

Question Two: Examining the implementation of the Child Right Law with regards to the welfare of custodian juveniles with indicators

Table 4: Examining the implementation of Lagos State Child Right Law with regards to the welfare of custodian juveniles with indicators.

Feeding, physical and health care	**SA** Freq. (%)	**A** Freq. (%)	**U** Freq. (%)	**D** Freq. (%)	**SD** Freq. (%)	**Mean**	**Std. Dev.**
Good food is available in the juvenile institutions	128 (27.3)	113 (24.1)	85 (18.1)	82 (17.5)	61 (13)	3.35	1.38
Eating regularly keeps children away from bad behavior	102 (21.7)	113 (24.1)	101 (21.5)	75 (16)	78 (16.6)	3.18	1.38
Children in the home are physically fit compared to when brought in	107 (22.8)	121 (25.8)	78 (16.6)	78 (16.6)	85 (18.1)	3.21	1.42
Delinquent behavior is not good for the society	99 (21.2)	135 (28.8)	98 (20.9)	64 (13.6)	73 (15.6)	3.26	1.35
The health care team are prompt and friendly	97 (20.7)	132 (28.1)	107 (22.8)	68 (14.5)	65 (13.9)	3.27	1.31
Average Mean						**3.25**	**1.36**
Physical conditions and sanitation of the custodial Institutions							
The environment is tidy and conducive for all children	113 (24.1)	143 (30.5)	82 (17.5)	79 (16.8)	52 (11.1)	3.39	1.31
Hostels and beddings are sufficient for all	110 (23.5)	140 (29.9)	88 (18.8)	67 (14.3)	64 (13.6)	3.35	1.34
Sleeping items available and satisfactory	115 (24.5)	138 (29.4)	72 (15.4)	65 (13.9)	79 (16.8)	3.30	1.41
Repairs are done regularly on all spoilt items	94 (20)	126 (26.9)	101 (21.5)	75 (16)	73 (15.6)	3.19	3.24
Toilet and bathing facility are enough for all children	106(22.6)	12 (27.1)	89(19)	69(14.7)	78(16.6)	3.24	1.39
Average Mean						**3.29**	**1.73**
Average Weighted Mean						**3.27**	**1.54**

Source: Field Survey, 2021

Decision rule: *if mean is ≤ 1.49 =very low, 1.5 to 2.49 = low, 2.5 to 3.49 = moderate, 3.5 to 3.9 = high, 4.0 to 5.0 = very high*

Table 4, the result showed the totality of performance of the Lagos State Child Right Law in terms of care of juvenile in custody with the use of key indicators was high. The parameters used to measure the performance of the Lagos state Child right law was feeding, physical and health care, and the physical conditions and sanitation of the custodial Institutions. From the table, Physical conditions and sanitation of the custodial Institutions (Mean = 3.29) and feeding, physical and health care had a higher mean score (Mean=3.25) which suggests that most of the wards agreed that the performance of the Lagos State Child Right Law was better in terms of Physical conditions and sanitation of the custodial Institutions. The results of the feeding, physical and health care revealed that majority of the participants agreed that the health care team are prompt and friendly (28.1%), delinquent behaviour is not good for the society (28.8%), eating regularly keeps children away from bad behaviour (24.1%), children in the home are physically fit compared to when brought in (25.8%). With respect to the physical conditions and sanitation of the custodial Institutions the wards agreed that hostels and beddings are sufficient for all (29.9%), toilet and bathing facility are enough for all children (27.1%), and repairs are done regularly on all spoilt items (26.9%).

The average weighted mean of (Mean = 3.27) falls within the criteria of moderate which indicates that the wards agreed that the totality of the performance of the Lagos State Child Right Law in terms of juvenile welfare in Lagos State custodial institutions, with the use of key indicators (feeding, physical and health care, the physical conditions and sanitation of the custodial institutions / facilities in this State) of juvenile in custody was generally moderate.

5. Conclusion / Recommendations

The study concluded that the nature of implementation and operations of social welfare policy serves as a major impetus to achieving the purpose for which the custodian homes were established. The study recommended that implementation of social welfare policy must be prioritized at the custodian homes. The welfare of juveniles in the homes must be constantly reviewed and monitored and there should be wholesome

reintegration process for released juveniles in order to avoid relapse.

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Impact of Banditry on Rural Development in Kaduna State (2016-2021)

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Abstract. Banditry remains a severe challenge to the security and development of local communities in Kaduna State and Nigeria. Reports recorded show frequent attacks, kidnapping, carnage and destruction of lives and properties. Weekly markets and agricultural activities have been negatively impacted. This study seeks to assess the impact of banditry on rural development in Kaduna state. Specifically, the study examines the factors responsible for banditry in Kaduna state and determines the perceived effects on the rural economy. The study employed a mixed-method approach. Hence, primary data were sourced from questionnaires, while secondary data were from journal publications, periodic reports, and newspapers. Simple percentage tables and Linear regression was used in analysing responses generated from the primary source. Content analysis was used in analysing secondary sources. The study revealed that banditry significantly impacts rural development in Kaduna State. The study, therefore, recommends that there is a need to tackle the ongoing banditry and kidnapping activities in Kaduna State. Also, the rural economy has been significantly impacted due to the suspension of weekly markets and attacks on farmers. There is a need to provide better security for farmers and the local communities. Basic social amenities and unemployment should be tackled holistically. Banditry is becoming a severe problem in Nigeria due to massive unemployment, weak security, poverty, and the porousness of the country's borders.

Keywords: Banditry, Rural Economy, Rural Development.

1. Introduction

The scourge of banditry has posed a severe threat to the security and development of the Northwest Region. Reports indicate the flourishing of bandit groups, whose members were seen displaying automatic weapons, terrorising herders in settlements, farms, villages, and the highways to kill people, kidnapping, and pillaging cows (Olaniyan, 2018).

Kaduna, Katsina and Zamfara have been the most critical hot spots in recent times. Gaye (2018), Olaniyan and Yahaya (2016), Suleiman (2017) and Mustapha (2019) have put forward several factors for the cause and prevalence of banditry in Nigeria. Some of the factors they argued include the fragility of the Nigerian state, weak state institutions, especially the security agencies, availability of grossly ungoverned spaces, the porosity of Nigeria's borders with its neighbouring countries and arms proliferation, weak leadership, corruption, unemployment, and mass poverty. The security architecture and federal system in practice have been contrived in such a manner that the control of every security outfit is placed in the hands of the President at the centre.

From July to December 2021, over 343 persons died due to banditry, communal clashes, violent attacks, and reprisals. Southern Kaduna senatorial district recorded the majority of these deaths. This has continued to hamper farming activities due to constant attacks and the kidnapping of farmers working in their fields. Reports show mass migration from affected communities in, birnin gwari, igabi, giwa, chikun, kauru, kajuru, kachia, kagarko, zangon kataf, jema'a and sanga local governments. (Ministry of Internal security and home affairs, Kaduna state, 2021). The rural economy of the frontline areas, which is sustained by crop and livestock farming, is near collapse due to banditry attacks. The weekly markets, a dynamic means of sustenance, have been suspended and residents dispossessed.

Rural development is an essential phenomenon in the realisation of sustainable national development due to the fact that it forms the foundation upon which growth and national development are built. The economy of the rural communities seeks to enhance development and improve livelihoods by implementing comprehensive development initiatives for rural areas where most people live in poverty (Abang, 2021).

Banditry has led to dire humanitarian consequences in Kaduna state and beyond. It has taken the form of shooting and killing, cattle rustling, kidnapping, rape, torching of entire villages, and looting of valuables, and the numbers of fatalities and displaced people have continued to rise. This has grossly affected the rural economy and socio-economic development of the affected areas and the state at large. There can be no doubt that banditry poses a serious threat to the security of Kaduna state, the Northwest states, and the country, given its growing impact and implications.

Considering the recent increase in banditry incidents, this paper seeks to examine the impact of banditry on rural development in Kaduna State. Specifically, the study examines the factors responsible for banditry in Kaduna state and determines the perceived effects on the rural economy. The hypothesis that guided the investigation is in the null and alternate form: $H_{0,}$ there is no significant relationship between banditry and rural development in Kaduna state. $H_{1,}$ there is a significant relationship between banditry and rural development in Kaduna State. Apart from the introduction, this paper is divided into six sections for analytical progression. The first section deals with conceptual reviews, empirical reviews, and theoretical frameworks, while the second section traces the evolution and historical development of banditry and rural development. The third section discusses the factors that promote banditry and the dimensions, and the fourth section examines the impact of banditry on rural development in Kaduna State. The fifth section is the research methodology, while the sixth section provides data analysis and discussion of findings. The last section is the conclusion and recommendations.

2. Conceptual Review, Empirical Review and Theoretical Framework

2.1. Conceptual Review

2.1.1 Banditry

Banditry is defined as using arms (or any instrument of coercion/violence) to deprive people of their material possessions (Okoli & Ugwu, 2019). It is often associated with gangs, although some bandits have been known to operate as lone brigands unaffiliated. Armed banditry has been a persistent phenomenon comprehended and illustrated from a variety of perspectives.

Banditry, according to Shalangwa (2013), is the practice of raiding and attacking victims by members of an armed group, whether or not premeditatedly, using weapons of offence or defence, particularly in semi-organized groups, with the intent of overpowering the victim and obtaining loot or achieving political objectives Such bandits are typically regarded as outlaws, desperate and lawless marauders with no fixed residence or destination avoid being identified, detected, and arrested by moving around the forest and mountains.

Banditry, in another sense, refers to armed robberies or related violent crimes such as kidnapping, cattle rustling, and village or market raids. It entails using force, or the threat of force, to intimidate a person or a group of people to rob, rape, or kill them (Okoli & Okpaleke, 2014). Banditry is motivated by economic or political interests. The former indicates that banditry is motivated by the imperative of material accumulation. The latter is motivated by a desire to rob, assault, or kill a person or group of people based on political or ideological preferences (Okoli & Ugwu, 2019).

Thus, banditry is defined in the context of this paper as the total of armed robbery or other violent crimes such as kidnapping, cattle rustling, village raids, highway raids that entail the use of force, or the threat of force, to intimidate a person or a group of people with the intention to rob, rape, kidnap, or kill the victims.

2.1.2 Rural Development

Rural development is a method of bringing about long-term changes in the structure of the rural sector so that productivity and output are increased, production technology and techniques are radically revolutionised, and living standards are raised. The primary goals of rural development revolve around increasing rural dwellers' productivity, welfare, and quality of life (Todaro and Smith, 2009).

According to Hunter (1964), rural development is the starting point for development. Rural development, according to Ogidefa (2010), is defined as creating and expanding opportunities for rural people to realise their full potential through education and participate in decisions and actions that affect their lives. He went on to say that rural development

entails efforts to increase rural output, create job opportunities, and eradicate fundamental causes of poverty, disease, and ignorance.

2.1.3 Rural Economy

Rural economies have significant potential for economic growth, job creation, and the promotion of decent work if the appropriate policies are implemented. The rural economy system in Nigeria is composed of five major components: human capital, agricultural activities, non-agricultural activities, primary production, and natural resources. Over 80% of rural labour is engaged in subsistence farming at the smallholder level (Edo and Ikelegbe 2014). As a significant sector of the rural economy, agriculture contributes approximately 50% of Nigeria's Gross Domestic Product (GDP). It provides a considerable portion of farmers' income compared to other sources of income in rural communities.

2.2 Empirical Review

Cattle rustling and banditry, according to Shehu, Victor, and Binta (2017), have posed a serious threat to public safety and security in North-West Nigeria. It has resulted in the deaths of people, injuries to people, population displacements, and a decrease in the number of cattle. It creates a sense of insecurity in herding communities. The situation can potentially stifle productivity in the herding industry, as cattle losses to rustlers result in depleted household income and pooled resources.

Rural banditry is often characterised by depredation, according to Mohammed and Alimba (2005). Cattle rustling, armed robbery, kidnapping for ransom, and illegal toll collection at village markets have become recurrent features of several communities in Northern Nigeria because bandits easily have their way in an unsecured environment (mostly rural communities). In fact, it is not an exaggeration to say that nearly all of Nigeria's northern states have experienced some form of banditry in the last ten years, and the situation appears to be deteriorating progressively, perhaps as a result of poor governance.

Cattle rustling and other forms of rural banditry, according to Momale (2015), endanger the existence of rural communities in Northern Nigeria. With the increase in human population and the growth of cattle herds, land resources, particularly fodder, water and necessary space for husbandry practice, are becoming increasingly scarce, leading to intense competition and conflict.

The two major factors that trigger cattle rustling in Nigeria, according to Olaniyan and Yahya (2016) and Markakis (1993), are:

(i) The escalation of the threat was aided by a shrinking resource base, which triggered an intense war of survival, as well as the proliferation of Small Arms and Light Weapons.

(ii) The presence of large swaths of forest reserves (ungoverned spaces) that are generally out of reach of Nigerian security operatives is another trigger for the rustling business. In Northern Nigeria, for example, rustling occurs in state-owned reserves such as Kamuku, Kuyanbana, and Falgore forests. The forest is frequently used by criminals as a haven from security forces.

According to Gadzama (2018), criminal gangs engage in rural banditry by stealing cattle and livestock, displacing rural dwellers in North-West Nigeria, particularly in Kaduna and especially in Birnin Gwari L.G.A. Animal theft forces rural residents to migrate south, resulting in environmental degradation, population growth, an increase in cattle prices, regional instability, and an escalation of farmer-herdsmen conflict. Rural banditry appears to be on the rise in the Northern region as a result of several interconnected issues involving tensions between farmers and pastoralists exploited by criminals posing as herdsmen. The phenomenon appears to be linked to government security shortcomings, identity and inter-group relations, and deterioration of people's socio-economic conditions.

2.3 Theoretical Framework

This paper uses the Human Needs Theory as its theoretical framework. Abraham Maslow (1954), John W. Burton (1990), Marshal Rosenberg (1984), and Manfred MA popularised the theory (1991). These theorists all agreed and posited that the underlying cause of most of the intractable conflict was people's need to meet their needs, which could be on an individual, group, or societal level. This theory centrally posits that human beings require specific necessities in order to live and achieve some level of well-being in any aspect of life. And such necessities are referred to as (basic) human needs. As a result, the human needs theory holds that the lack of alternative means to meet the needs of individuals or groups is usually what sparks violence or conflict. The theory argues that violence often occurs when humans require understanding, respect, and consideration for their needs. According to the theory, these needs include not only subsistence needs such as food, water, and shelter, but also biological needs such as participation, identity,

understanding, and recognition. Although there have been many human needs theorists, this work is anchored within the prism of Abraham Maslow's (1954) and John W. Burton's (1990) theory postulations. This theory contends that humans, by nature, require some necessities to survive. These necessities have been observed to include more than just food, water, and shelter.

Maslow and Burton go on to say that there are both physical and non-physical elements required for successful human growth and development and those things that humans are innately motivated to achieve. Maslow had previously identified and arranged the essentials of human needs in a hierarchical order in his postulations. Each need, according to him, has a specific ranking or order of attainment. Thus, his (Maslow's) pyramids of human needs begin with the basic items of food, water, and shelter. The need for safety and security follows these, followed by a sense of belonging or love, self-esteem, and a list of personal fulfilment. The following are considered essential elements for human survival, growth, and development: a. Safety/Security – The desire for structure, predictability, stability, and the absence of fear and anxiety. b. Belongingness/Love- The desire to be accepted by others and maintain strong personal ties with one's family, friends, and identity groups. c. Self-esteem – The desire to be seen as strong, competent, and capable by oneself and others. d. Personal Fulfilment-

The desire to achieve one's full potential in all aspects of life. e. Identity – goes beyond a psychological "sense of self," according to Burton and other human needs theorists, identity is a sense of self in relation to the outside world. Identity becomes a problem when it is not recognised as legitimate, when it is regarded as inferior, or when others threaten it with different identities. f. Cultural Security – Is associated with the need to recognise one's language, tradition, religion, cultural values, ideas, and concepts. g. Freedom – Is the state of not being constrained by physical, political, or civic constraints and having the ability to exercise choice in all aspects of one's life. h. Distributive Justice- Is the requirement for the equitable distribution of resources among all members of a community. i. Participation – Is the ability to actively participate in and influence civil society. However, the Human Needs Theory is relevant to this work because it adds a new dimension to conflict theory. This is because the approach provides a critical conceptual framework that connects and addresses human needs at all levels.

In essence, Human Needs Theory is thought to have emerged as a result of widespread frustration with basic human needs as a threat to peace and social order. Burton (1990), a well-known proponent of human needs theory in both social and political conflict, postulates that universal human needs are frequently ignored, leading to groups resorting to violence to assert their rights and satisfy their needs. Coate and Rosati (1988) add clarity to the preceding argument by claiming that human needs are potent sources of explanation for human behaviour and social interaction.

This theory is relevant to this paper in the sense that it was developed to address conflict-related issues, and in this context, it is an undeniable fact that Kaduna State is currently grappling with the menace of armed bandits, which has negatively impacted the State's socioeconomic and rural development. The state is now characterised by ongoing violent conflicts between farmers, herders, villagers, and armed bandits, which could be attributed to poor provision of basic needs and protection of interest. Significant from the arguments advanced by some segments of society in the State, as encapsulated by human needs theory, was the issue of safety and security. Similarly, the relevance of the human needs theory could be attributed to the government's inability to provide the basic essential elements for human survival. In fact, the state government's inability to provide adequate social amenities in most affected communities had largely been the bane of conflict in most of the state's societies. Most communities within the affected local governments in the state lack basic social amenities. Poor health care facilities, bad roads, unemployment, and poverty are predominant indices. These according to the theory, are some of the basic needs of individuals that can lead to violence when they are wrongfully denied. Furthermore, the United Nations Development Program (UNDP, 1994) identified seven threats to human security that can lead to conflict in any society. Economic threats, food threats, health threats, environmental threats, personal threats, community threats, and political threats are among the seven identified threat.

3. Evolution and Causes of Banditry in Kaduna State

3.1 Evolution of Banditry in Kaduna State

Most countries in Africa have experienced these forms of conflicts during the slave trading, colonial, and post-colonial periods. Though there have been remarkable changes in the nature and pattern of

banditry and other forms of conflicts in West Africa, the socio-economic and political reasons remain significant in explaining the prevalence of the phenomenon in the sub-region (Abdullahi, 2019).

In 2011, Nigeria saw a spike in banditry attacks as a result of violent competition for scarce resources, primarily between farmers and herders in the northwest. Due to environmental and ecological changes in the area, including desertification, land and water became valuable commodities. Farmers/herder clashes and fighting between armed nomadic Fulani herders and armed sedentary Hausa/Non-Hausa farmers resulted from conflict over resources, including livestock in some cases. On both sides, the introduction of criminal enterprises quickly turned some of them into banditry groups. The crisis has been exacerbated by unresolved legal issues regarding land and grazing rights, a lack of security and administrative presence in the area, and the politicisation of the problem. Gang violence began in Zamfara state and has since spread to five other states in the region, including Kaduna, Katsina, Sokoto, Kebbi, and Niger, the latter of which is located in North Central Nigeria (Africa Report, 2020). This has led to the deaths of over 8,000 lives in the region.
A decades-long struggle in southern Kaduna state between the Hausa and Fulani on the one hand, and several smaller ethnic groups on the other, over political offices, economic resources, and the fruits of government spending has resulted in recurrent violence, often with significant casualties. The proliferation of deadly criminal gangs, which thrive in a region awash in arms and which state security forces struggle to control, has exacerbated the situation. The proliferation of guns and armed Hausa and Fulani who branch out into cattle raiding, kidnapping for ransom, pillage, and robbery of gold miners has seen an explosion in criminal activity in the Northwest over the last ten years. Criminal armed groups are more likely to get involved in feuds between farmers and herders (and their armed proxies) than in feuds between farmers and herders (and their armed proxies).

Since 2013, cattle rustling has become more organised and intensive in the Northwest, where it had previously occurred on a small scale in many parts of northern Nigeria. Large and well-armed criminal groups are based in Kaduna's Kamuku forest, Kano's Falgore forest, Zamfara's Dansadau forest, and Kaduna's Davin Rugu Forest stretching stretch across Kaduna, Katsina, and Zamfara states, are responsible for much of the rustling. The rustlers, who frequently use automatic rifles, have stolen many herds and killed many herders in the process. Many herders have acquired additional weapons to defend themselves, which they also use in their fight against farmers. Besides kidnapping people in rural areas, these groups regularly ambush motorists on highways, killing those who resist or whose families refuse to comply with their demands. They also raid and pillage villages, destroying homes, and barns, and abducting and rapping women. They write letters to village heads in some cases, requesting that residents pool money and pay them to avoid deadly attacks, or that farmers pay tolls in exchange for access to their fields. (The Nation, May 2019).

After seven years of inactivity, the militant Islamist group Ansaru staged a complex ambush in January 2020, killing dozens of Nigerian soldiers. Ansaru has since claimed responsibility for several attacks, primarily in northern Kaduna. However, differentiating these attacks from those carried out by other criminal organizations has proven difficult. Ansaru's renaissance appears to be connected to the group's ability to exploit grievances arising from Kaduna's deteriorating insecurity and socioeconomic conditions. Ansaru's ideological campaign portrays democracy as corrupt and incompatible with Islam while recruiting members with weapons and economic opportunities. The extremist group appears to have recruited particularly well among Fulani. The group's efforts to expand beyond Kaduna and its capability to target Nigerian soldiers highlight the broader security threat Ansaru poses to the region (Ayandele, 2021). These have steadily contributed to the daring displays of the bandits and numerous security breaches, as well as deadly attacks in the state.

3.2 Causes of Banditry in Kaduna State

Several elements have been suggested as driving forces of banditry in Nigeria, particularly in the country's northwest region. Some socio-existential variables that characterize the region's interior, as well as its borders, are the drivers of banditry in northern Nigeria.

The regions rarely controlled places, such as the hinterlands, forestlands, and borderlines, are prominent in these situations. The North-western hinterlands are characterized by extremely dispersed rural settlements, which are separated by volatile rangelands and farmlands (Gaye, 2018). They're also riddled with ponds, cliffs, and caverns, as well as a variety of forested environments. They are not only distant from one another, but also from the centres of authority at the local and state levels. The region's forestlands are vast, rugged, and dangerous. Most

importantly, they are severely under-policed, which makes them ideal for all types of jungle criminals. As a result, violent crimes like banditry have thrived in such densely forested locations. Often time, most attacks take place in rural settlements in forested areas in the northwest, where protection is limited.

Banditry is also common in wide swaths of forest reserves that are largely outside the reach of Nigerian security forces. Most bandit activities take place in state-owned reserves in Northern Nigeria, such as the Kamuku, Kiyanbana, and Fagore forests. The forests are ideal hideouts for criminals who want to avoid being apprehended by security forces. The Nigerian security forces' reluctance to penetrate these forest areas appears to be partly owing to inefficiency, local people's complicity, a lack of advanced equipment, and a lack of enthusiasm on their part (Olaniyan & Yahaya, 2016).

The high unemployment rate in Nigeria is another element that encourages banditry. Nigeria's unemployment rate is 23.1 per cent in 2019, according to the National Bureau of Statistics (NBS), with youth unemployment reaching 55.4 per cent. Similarly, the poverty index is 43.5% in the state (KBS, 2020). These rates have continued to rise year after year as Nigerian universities continue to graduate batches of young people with the expectation of improved jobs and prospects following graduation (Adegoke, 2019). The creation of most of these bandit attacks and security threats in Nigeria has been fuelled by the fear of Nigerian graduates, which eventually turns to frustration, and finally to violence against the government (Suleiman, 2017; Mustapha, 2019). The rising tide of crime in Nigeria has been blamed on rising unemployment. As a result, idle youngsters are more likely to engage in criminal activities to keep up with current trends. They will go to any length to become wealthy quickly, hence, violent crimes such as banditry become juicy get quick opportunities.

There is no denying that Nigeria's inadequate security system contributes to the frightening prevalence of banditry in the northwest. This could be attributed to the overstretched security architecture of the country. In some circumstances, security officers assigned to certain security situations lack the skills and equipment necessary to handle the events in such a way that they do not arise. There have also been reports of security officers instead of serving as national watchdogs, quickly becoming government saboteurs, and fuelling insecurity by leaking vital security information.

Furthermore, poverty and weak governance had a big role in the rise of banditry in Nigeria. Unemployment and poverty remain significantly high with a rapidly growing population. Nigeria has surpassed India as the country with the most people living in extreme poverty, with an estimated 87 million Nigerians, or over half of the country's population, living on less than $1.90 per day. Currently, Nigeria has an estimated population of 88.4 million people living in extreme poverty. The number of men in the country living on less than $1.90 per day is roughly 44.7 million, while the number of women is around 43.7 million. As it stands, Nigeria accounts for 12.9 per cent of the world's population living in extreme poverty in the year 2022. Banditry, terrorism, and other criminal acts are significantly connected to poverty and unemployment. Another important aspect promoting banditry in northwestern Nigeria is the issue of arms proliferation. Since the fall of Ghadaffi's rule in Libya, there has been a steady influx of small arms and light weapons (SALWs) into Nigeria (Gaye, 2018). Non-state actors like terrorists, militants, and bandits obtain these arms and weapons and use them to terrorize individuals and communities. On their route to deliver guns to armed bandits, military troops, and Department of State Service (DSS) personnel apprehended two suspected illicit arms traffickers with 1,479 rounds of 7.62mm (special) ammunition along the Funtua-Gusau road in September 2018. (Adeniyi 2018).

4. Impact of Banditry on Rural Development in Kaduna state

With the persistent actions of armed bandits now proscribed as terrorists in Kaduna State, a new wave of crises has rocked rural development. Attacks have included kidnapping, murdering, cattle rustling, rape, torching entire villages, and looting of valuables, with the number of persons killed and displaced rising by the day. While over 1,100 persons were slain in the six states in 2018, over 2,200 were killed in 2019, and over 1,600 were killed between January and June 2020. (Council on Foreign Relations, 2020). By September 2019, similar attacks had displaced over 160,000 individuals and resulted in over 41,000 refugees (World Food Programme, 2019).

The main economic activities in the northwest particularly Kaduna State, have been identified as large-scale agricultural and animal husbandry with trading as a secondary source of revenue. Throughout the year, targeted attacks on farmers have rendered cultivation and harvest impossible. Animal husbandry in these areas has also been affected by cattle rustling. As a result of the violence and forced

relocation, affected communities were unable to rely on self-produced cereals for subsistence and commercial farming, increasing the risk of food insecurity for both displaced and non-displaced people. The possibility of being abducted for ransom exists. As the banditry attacks have continued, the afflicted populace has expressed scepticism about the army and police's ability to avoid a repeat of this heinous trend. Residents and survivors in the afflicted states have stated that when they are attacked, the police and soldiers respond slowly, if at all. The attack on the Abuja Kaduna train on Monday 28th March 2022 by these bandits and the kidnapping of passengers give credence to this assertion. Victims are still in captivity over 30 days after the incident.

Banditry is thereby hurting rural development, security, peace, and prosperity in Kaduna State and the northwest region, according to all accounts. While several variables may be at play, the threat to security in the region, which is already reeling from the impact of a decade-long Boko Haram insurgency in the northeast, cannot be overstated. As a result, afflicted communities either flee to the urban centres or rely on local vigilantes for safety. People are gradually arming themselves to defend themselves in certain circumstances.

5. Research Methodology

The study adopted both qualitative and quantitative research methods; hence it is mixed-method research. Primary data was sourced using questionnaires while secondary sources were sourced using documented research, journal publications, academic papers, newspapers, and internet sources.

5.1 Study Area

Kaduna state covers a land area of 46,053 square kilometres with an average density of about 75 persons per square kilometre. The state shares boundaries with Niger state to the west, Zamfara, Katsina, and Kano to the north, Bauchi, and Plateau States to the east and FCT Abuja and Nassarawa states to the south. Kaduna state provides the meeting point of the earliest histories of Nigeria. According to the 2021 population projection, Kaduna state has a total population of 9.4 million, accounting for 4.3% of Nigeria's total population. Females constitute 4,401,430 of the population while males are 4,499,521. The state is divided politically into three senatorial districts, Kaduna North, Kaduna Central and Kaduna South. The state has 23 local government areas. Inhabitants are mostly Christians and Muslims belonging to different ethnicities. Agriculture and other associated activities constitute the mainstay of the economy of the state

5.2 Population and Sample size

The total population of the study is 480 and it is composed of Kaduna South Local government, Igabi and Chikun local government and the ministry of internal security and home affairs. Krejcie and Morgan's formula was used to arrive at the sample size of 214. A purposive sampling technique was used to administer the questionnaires.

The table below shows the population and sample size.

Table 1: Population and Sample Size

Name of Organization	Population of the organization	Sample size	Percentage of representation
Ministry of internal security and home affairs	20	13	6%
Igabi LG	97	40	19%
Kaduna South LG	193	86	40%
Chikun	170	75	35%
TOTAL	**480**	**214**	**100**

Source: Field Survey, 2022.

A total of 214 questionnaires were distributed and 200 representing 93% of the entire questionnaires were returned dully filled. A purposive sampling technique was adopted in distributing the questionnaires across the organization. The table below shows the rate of distribution.

Table 2: Distribution and Return of Questionnaire

Name of Organization	Number of Questionnaires Distributed	Number of Questionnaires Returned	Rate of Return (%)
Ministry of internal security and home affairs	13	10	77%
Igabi LG	40	36	90%
Kaduna South LG	86	83	96%
Chikun LG	75	71	94%
TOTAL	**214**	**200**	**93%**

Source: Field Survey 2022.

Out of the 214 copies of the questionnaire administered 200 were retrieved and valid. Thus, 200 (93%) copies of questionnaires were duly completed and retrieved for data analysis. The questions on the questionnaire are expected to elicit responses from the respondents on the Banditry and rural development in Kaduna State. The responses of the respondents will be measured based on a five-point Likert scale of strongly agree, agree, disagree, strongly disagree and undecided.

6. Data Analysis and Discussion of findings

Data obtained from the questionnaire were analysed in line with the research objectives and research hypothesis formulated for this study. Statistical Packages for Social Science (SPSS) was used to analyse and interpret the responses. Test of hypothesis test was conducted using the responses provided in simple percentages as contained in the questionnaire item.

The decision rule for the hypothesis test: Accept the null hypothesis when the probability value is greater than the alpha value. If otherwise, we reject it.
H0: There is no significant relationship between Banditry and rural development in Kaduna State.
H1: There is a significant relationship between Banditry and rural development in Kaduna State.

7. Discussion of Findings

Table 3

S/N	Banditry and Rural Development in Kaduna State.	SD	D	U	A	SA	Total
1.	The activities of banditry have affected farming and trade in the local communities?	3 (1.5%)	2 (1%)	0 (0%)	107 (53.5%)	88 (44%)	200 (100%)
2.	There has being records of mass migration from affected local communities to the city center.	3 (1.5%)	4 (2%)	2 (1%)	86 (43%)	105 (52.5%)	200 (100%)
3.	The provision of basic social amenities has being affected due to violent attacks by the bandits	3 (1.5%)	5 (2.5%)	3 (1.5%)	109 (54.5%)	80 (40%)	200 (100%)
4.	Weekly markets significantly influence rural economic development	2 (1%)	4 (2%)	4 (2%)	86 (43%)	104 (52%)	200 (100%)
5.	The suspension of weekly markets has negatively affected rural development in the affected localities.	4 (2%)	6 (3%)	5 (2.5%)	58 (29%)	127 (63.5%)	200 (100%)
6.	The rate of unemployment has contributed to the incessant banditry attacks	5 (2.5%)	3 (1.5%)	3 (1.5%)	92 (46%)	97 (48.5%)	200 (100%)

Source: Researcher's computation using SPSS Version 21

Table 3 shows the descriptive analysis of the respondents in the research carried out on Banditry as it affects rural development in Kaduna State. Majority of the respondents agree that banditry has affected farming and trade in the local communities of chikun and Igabi local government areas of Kaduna State. Also, the majority of the respondents are of the opinion that banditry has led to mass migration to the city canters for fear of kidnapping. The provision of basic social amenities has been significantly impaired due to incessant attacks. The suspension of weekly markets has further worsened the rural economy of the affected communities. Similarly, the majority agree that the high rate of unemployment has contributed immensely to the banditry attacks in the state.

Test of Hypothesis

H0 There is no significant relationship between Banditry and Rural Development in Kaduna State.

Table 4: Linear Regression Result (Model Summary) between Banditry on rural development in Kaduna State.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.	Durbin-Watson
1	.797[a]	.635	.634	. 77286	664.146	.000[b]	.185

Source: SPSS Version 20.0 output.

The result in table 4 above showed that banditry can account for or explain about 63.4% (adj. r = 0.634) of Rural Development in Kaduna State. The implication is that the remaining 36.6% of Rural Development in Kaduna State can be explained by other factors outside the model.

Table 4.4: Linear Regression Result (Coefficients[a]) between Banditry and Rural Development in Kaduna State.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.093	.131		.707	.000	1.672	2.111
	RURAL DEVELOPMENT (Independent Variable)	.827	.032	.797	25.771	.000	.649	.758

a. Dependent Variable: Banditry (Dependent Variable)

Source: SPSS Version 20.0 output

The table above shows the overall result of the tested hypothesis. The model contributes about 63.4% of Banditry on Rural Development in Kaduna State. The hypothesis which states that there is no significant relationship between Banditry and Rural Development in Kaduna State is significant at a 1% level (P = 0.000) with a positive relationship (Beta = 0.797) which shows that the P-value is less than the level of significant. The study, therefore, rejected the null hypotheses and concluded that there is a significant relationship between Banditry and Rural Development in Kaduna State.

8 Conclusion and recommendation

The paper focused on the impact of banditry on rural development in Kaduna State. The paper provided a brief on banditry and rural development in the state. Banditry is becoming a serious problem in Nigeria due to massive unemployment, weak security, poverty, and the porousness of the country's borders. This has resulted in kidnappings, near collapse of the rural economy, and food shortages due to incessant attacks on farmers and agricultural activities in the rural communities. Kaduna State and the northwest of Nigeria have been quite tense and volatile due to rampant banditry, kidnappings, immense plundering and carnage, and general instability in all aspects of life.

9. Recommendations

- There is a need to tackle the incessant banditry and kidnapping activities in Kaduna State
- The rural economy has been significantly impacted due to the suspension of weekly markets and attacks on farmers. There is a need to provide better security for farmers and the local communities.
- Basic social amenities and unemployment should be tackled holistically.

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Communication Channels as Predictors of Knowledge and Participation in National Social Investment Programmes in Selected Local Government Areas in South-South, Nigeria

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Abstract. The National Social Investment Programme (NSIP) was established by the Federal Government of Nigeria to tackle poverty. Ending poverty is the first of the Sustainable Development Goals (SDGs) adopted in 2015 by the United Nations and Nigeria, as a signatory to the SDG, has at different times initiated, with little or no results, poverty alleviation initiatives. To achieve success, knowledge and participation are considered critical factors for poverty alleviation initiatives and communication channels play a role in enhancing these two factors. The extent of communication channels used (face-to-face, radio, television, newspaper, billboard, flyers/posters and online) may affect the level of success of the NSIP. The previous studies reviewed had paid no particular attention to the various communication channels used in the NSIP in South-South, Nigeria. This study, therefore, investigated the extent to which the various communication channels contributed to knowledge and participation in NSIP among residents of selected Local Government Areas in South-South, Nigeria. The study employed the survey research design. The population for the study comprised 2,371,276 residents of nine selected Local Government Areas in South-South, Nigeria. A sample size of 827 was derived using Saunders, Lewis, and Thornhill's formula. The multi-stage sampling technique was adopted for selecting respondents. A validated questionnaire was used for gathering data. The Cronbach's alpha reliability coefficients ranged from 0.78 to 0.82. The response rate was 98.1%. Data were analysed using descriptive statistics and inferential (linear regression) statistics. Results showed that the respondents received information about NSIP poverty alleviation initiatives through face-to-face (86.9%), radio (83.0%), television (69.8%), newspaper (46.2%), online (25.8%), flyers/posters (25.5%), and outdoor/billboard (16.4%). The result further revealed that the knowledge level of NSIP poverty alleviation initiatives among respondents was very high extent ($\bar{x}$ = 3.71 on a scale of 4; *SD* = 1.04) while the participation was low extent ($\bar{x}$ = 2.26 on a scale of 4; *SD* = 1.21). The study further revealed that the communication channels had significant influence on the knowledge of ($Adj.R^2$ = 0.403, $F(2, 808) = 22.404$, $p < 0.05$), and participation in ($Adj.R^2$ = 0.042, $F(2, 808) = 151.103$, $p < 0.05$) NSIP poverty alleviation initiatives. The study concluded that knowledge of, and participation in NSIP poverty alleviation initiatives were heightened by the various communication channels. It was recommended that there should be continued use of face-to-face, radio and television to enhance knowledge and participation in the NSIP poverty alleviation initiatives.

Keywords: Communication channels, Knowledge of NSIP, National Social Investment Programmes, Participation in NSIP, Poverty alleviation

1. Introduction

The portrayal of poverty as the most pervasive development problem has received several scholarly reviews (David Suttie, 2015; Ngoma, 2017; Ozoh, Metu, Stephen, & Madueke, 2020). As a global crisis with multiple dimensions, poverty, and its attendant consequences, represents one of the serious obstacles to human development according to Urama (2019). The different challenges associated with poverty can be seen in cases of social instability or social crisis, environmental degradation, illiteracy, inequality, insecurity, and instability, health crisis, and other related development problems (Oyeshola, 2007).

According to Mood and Jonsson (2016), poverty has often been described as a lack of economic resources which has serious negative and varying implications on society's development. It has been described in the view of Ngoma (2017) as having several damaging impacts on the world's most vulnerable population especially women, children, and the economically and physically disadvantaged.

As a development challenge, poverty effects are more visible in some countries and regions in the world than in others. According to Metu and Kalu (2020), poverty as a development problem is responsible for several other negative outcomes in terms of human development hindrances, especially in underdeveloped countries. Countries in Africa, Asia, and parts of South America are mostly affected by poverty with a worldwide impact seen in such cases as unemployment rates, hunger, diseases, homelessness, and crime. The term, poverty, has been described differently and its impacts are seen from varying perspectives between less developed countries and regions and more developed countries (Cobbinah, Black, & Thwaites, 2013). The reasons for these disparities in poverty rates between developed and underdeveloped countries, according to Vázquez, Panadero, Pascual, and Ordoñez (2017) can be said to result from a multiplicity of factors such as fault of world economic structure or fault of fate, nature, cultural habits, and political misconducts. However, what is evident is that countries with a genuine interest in addressing poverty often commit a huge amount of resources and effort to ensuring that there is stable economic progress, and such economic interventions are inclusive enough to reduce poverty. Chigozie (2016) posits that the problem brought about by the prevailing incidences of poverty, especially in developing and under-developed countries, has a broad and multi-dimensional impact on the lives of many people who live in poverty.

The goal to end extreme poverty by the year 2030 is the first agenda for global development as stated by the United Nations in 2015. No Poverty is goal number one of the 17 goals and is recognized as a critical item on the list of global goals described by the United Nations as Sustainable Development Goals (SDGs). The main objective of the United Nation's SDG 1 (No Poverty) is to lift millions of people, worldwide, out of extremely poor conditions before 2030. However, there are enormous hurdles on the way to realizing this laudable Sustainable Development Goal (SDG1). This can be attributed to the multiplicity of social, environmental, political, cultural, and economic factors that keeps fuelling poverty around the world (Safdar & Saboor, 2017; Vázquez, Panadero, Pascual & Ordoñez, 2017).

Although several programmes and initiatives have been developed and launched to combat the menace of rising poverty in Nigeria, some of which are the National Poverty Eradication Programme (NAPEP) in 2001, Operation Feed the Nation programme (OFN) far back in 1979, among several others, it has remained evident today, as was the case in previous years, that most of these poverty reduction programmes never achieved their set goals (Olise & Roseline, 2019). Since Nigeria gained its independence in 1960, successive governments have regularly initiated programmes with a promise to decisively tackle poverty as a social and economic problem. Habitually, much of these efforts over these years have yielded little or near nothing as poverty rates have remained consistently on the rise (Ajulor, 2013). Regrettably, the rise in poverty rate has remained consistent despite the huge amount of resources and time invested in poverty reduction programmes by the federal government of Nigeria under both civilian and military regimes. This is in addition to the efforts of all the regional and sub-national (state) governments with accompanying multiple agencies set up to lead or champion the fight against poverty. Several studies (Eze, Okpala, & Ogbodo, 2014; Oluwasegun & Semako, 2020) have also attributed the incidence of poverty in Nigeria to the failure of educational, social, political, and economic policies. Shimeles (2014) argued that the prevalence of poverty has always not been a lack of aids, insisting rather that there is a need to improve labour and productivity. Because, as Shimeles observed, most of the previous poverty alleviation policies and programmes often do not deliver the needed results despite huge amounts of monetary implications in their implementation. In addition, Sodeinde, Ajaegbu, and Ajaegbu (2015) argued that the failure of successive administrations to continue with existing poverty alleviation initiatives has contributed to the reasons why some of the programmes failed or have not been able to realize set goals of alleviating poverty hence its prevalence. These positions expressed above, among many others, raise the fundamental question about the level of knowledge and participation of the poor in the aforementioned poverty alleviation initiatives.

Knowledge and participation are critical success factors for poverty alleviation initiatives, and communication plays a role in enhancing these two factors. Therefore, the extent of communication channels used in poverty alleviation programmes is an issue of concern. Knowledge represents the

aggregate information and understanding that exists regarding a problem or any matter of interest such as the case of poverty and poverty alleviation programmes among targeted beneficiaries. Bolisani and Bratianu (2018) described knowledge as part of physical and personal experience which is essential in providing understanding and belief. Knowledge is an important factor in development as it plays a critical role in long-term economic development, this is according to Cozzens, Gatchair, and Ordonez-matamoros (2008). To underscore the importance of knowledge, Abdelmawla (2015) noted that ignorance, which is the absence of knowledge, constitutes a major hindrance to poverty alleviation and development in general. On the other hand, participation is a crucial element in poverty alleviation initiatives. Nikkhah (2016) noted that the real meaning of participation in the real efforts of people, concerned to pool resources together to attain the objectives they have set for themselves. It also implies the active process in which the participants take initiatives and actions that are inspired by their thinking and decisions based on existing knowledge and available information leading to required action. Participation as a concept has received several scholarly mentions in literature within the context of development practice (Chavis & Wandersman, 1987; Nikkhah, 2016, Yang, Tock, & Hospital, 2016). Within the context of this study, participation involves the engagement and partaking in or the act of being involved in the NSIP poverty alleviation initiatives.

Often the poor are said to be marginalized in both the communication process and in the implementation of poverty alleviation programmes, which is described by Aminu and Onimisi (2014) as a top-bottom approach instead of a bottom-up approach. Lack of knowledge and non-participation is the topmost factors which have been identified as hindrances to poverty alleviation (Aminu & Onimisi, 2014; Mchombu, Mchombu, & Centre, 2014; Osei-kufuor & Koomson, 2014).

To address the prevailing poverty crisis across Nigeria, the federal government of Nigeria in 2016 launched the National Social Investment Programmes (NSIP). The NSIP is a set of poverty alleviation and social investment initiatives meant to tackle the existing poverty emergency in Nigeria. The launch of the National Social Investment Programmes (NSIP) follows several previous attempts at poverty alleviation through several other programmes initiated by previous regimes, all have not achieved much with regard to the goal of reducing poverty in Nigeria (Olise & Roseline, 2019). The NSIP is an initiative sponsored by the federal government of Nigeria and implemented across the six geopolitical regions and is a portfolio of poverty alleviation initiatives which includes the following; (1) The N-Power Programme (Skill Acquisition/Job Creation) (2) The Government Enterprise and Empowerment programmes (GEEP) 3) the Conditional Cash Transfer Programme (CCTP) and 4) the Home Grown School Feeding Programme (HGSFP). All of these poverty alleviation initiatives are aimed at improving the living standards and well-being of citizens.

The NSIP launched and deployed several communication campaigns via multiple communication channels to the public. Information about the poverty alleviation initiatives were conveyed through major national newspapers and magazine advertising and announcements in addition to several face to face and interpersonal engagements through workshops, public seminars and events. The various activities of the NSIP were also communicated through social media platforms especially on Facebook with the name 'Social Investment Programme Nigeria'. The various communication campaigns by NSIP were designed to create awareness and knowledge about its poverty alleviation initiatives, to enhance the knowledge of the country's citizenry on the benefits of the NSIP initiatives and to encourage participation in the various poverty alleviation initiatives.

As it is in the case with other development challenges related to poverty alleviation, communication has always played a crucial role in terms of creating knowledge about the problem, and in galvanizing citizens to take shared action (participate) towards solving or ameliorating the development challenge (Gambo, 2018). More so, the relevance of the communication channels adopted has often contributed to the success of the development programme or initiative as Odoom (2020) argued that communication can be used to promote people's participation in development activities. Poor communication, which can result in insufficient knowledge among target audience, has often been identified as a major problem capable of negatively affecting efforts to achieve poverty reduction and solve other related development issues (Odoom, 2020). Hovaland (2013) argued that often the poor are marginalized both in economic processes in society and also in the information and communication ecosystem. This view highlights a situation in which the poor have been frequently ignored or disregarded in the societal communication value chain. And most often the right information

eludes the poor thereby adding to the difficulty with helping them out of poverty. This agrees with the views held by Khuhawar, Jianqiu, Farkhunda and Ye (2014).

Adekoya and Ajilore (2012) identified communication as a vital tool for national development in any society. In their opinion, communication and by extension the effectiveness of communication channels are part of the essential ingredients required for achieving national development goals. Communication channels are essential in development planning and implementation of programmes especially as it has to do with knowledge provision and encouraging participation in poverty alleviation initiatives and other similar development-oriented programmes (Sharma, Baskota, Timalsina, Oli, & Adhikari, 2021).

Since the reality has been embraced on the need to eradicate poverty in Nigeria through the National Social Investment Programmes (NSIP) poverty alleviation initiatives, the implementer which is the National Social Investment Office (NSIO) employed the use of different communication channels to driving the campaign by encouraging residents of the South-South and other regions to get involved in the initiatives. The fundamental concern of this study therefore, was to provide useful answers to thought-provoking questions relating to the effectiveness of the communication channels used by (NSIP) in relation to broadening knowledge of targeted participants in the South-South, and if such knowledge impacted residents' participation in the initiatives.

From the review of extant works of literature, the agenda-setting theory, cultivation theory, and development media theory were the theoretical anchor for this study. The agenda-setting theory popularized by McCombs and Shaw (1972) maintains that the mass media play significant role in how societal issues gain public attention. This was built on the assertion of Walter Lippman, in the 20th century that the mass media shape the public view and general perception through image projecting (Lei, Hong, & McCombs, 2012; Scheufele & Tewksbury, 2007). The cultivation theory explains the power of television in influencing viewers' moral and social values. It maintained that television also has the ability to influence the viewers' perception of life through painting a symbolic picture of the environment, pictorial storytelling, portraits of the cultural norms, cultivation of the value system, gradual altering of religion, social norms, and culture (Mosharafa, 2015). The theory explains how television viewers tend to believe that the picture created about the world through television progrmmaing reflects the actual picture of the world. In its own right, the development media theory advocates that while the freedom of the press is essential for nation-building, independent media and news reporting should be complemented with objectives of promoting national economic, political, and social development (Ugangu, 2012). Developmental media theory summarises that the media should act as a catalyst that promotes good and positive news about government developmental policies rather than being always critical of government policies (Mosharafa, 2015).

On the basis of the foregoing, the study tested the following hypotheses at 0.05 level of significance:

$H_0$1: Communication channels has no significant influence on the knowledge of NSIP poverty alleviation initiatives among residents of South-South, Nigerian

$H_0$2: Communication channels has no significant influence on participation in NSIP poverty alleviation programmes among residents of South-South, Nigeria

2. Research Materials and Methodology

The study setting was the South-south geopolitical zone of Nigeria where the National Social Investment Programmes (NSIP) has been launched. The study employed the survey research design. The population for the study comprised 2,371,276 residents of nine local government areas of three purposively selected states of Akwa Ibom, Delta and Rivers. A sample size of 827 was derived using Saunders, Lewis, and Thornhill's formula. The multi-stage sampling technique was adopted for selecting respondents. A validated pretested questionnaire was used for gathering data. The researcher employed content and construct validity to assess the instrument's ability to measure the extent to which statements in the questionnaire intend to measure. Copies of the questionnaire were administered using trained assistants and data was collected between January and March 2022. The Cronbach's Alpha reliability coefficients ranged from 0.78 to 0.82. The reliability for each variable was determined at a starting point of 0.7 and above (Saunders, Lewis & Thornhill, 2009). Data were analysed using descriptive statistics (mean and standard deviation) and inferential statistics (linear regression). Mean and standard deviation are the descriptive techniques adopted while linear regressions was the inferential statistical tool used in testing hypotheses in this study. Inferential statistics

were used to determine the effect of predictors on the criterion value. Ethical approval for the study was obtained from Babcock University Health Research Ethics Committee (BUHREC). For this study, knowledge represents the degree of verifiable, reliable, and actionable information respondents have about the NSIP poverty alleviation initiatives through any of the identified communication channels. It also represents the ability of the respondents to interpret such information within the context of poverty and poverty alleviation issues as it concerns their skills, access to finance, job, free cash payments, and improvement in living conditions while participation is being involved in and benefiting from any of the NSIP poverty alleviation initiatives which are 1) Government Enterprise and Empowerment Programme (GEEP), 2) N-Power Job Creation Programme, and 3) Conditional Cash Transfer (CCT) initiatives.

3. Results

From the eight hundred and twenty-seven (827) copies of a structured questionnaire distributed, a total of eight hundred and eleven (811) were validated for data analysis, resulting in 98.1% response rate. This result begins with the analysis of respondents' socio-demographic attributes, followed by the analysis of research questions, test of hypotheses, and discussion of findings. Male residents of South-south Nigeria constituted the majority of participants in this study (59.8%). The result also indicated that majority of participants (27.9%) are in the middle age categorised as youthful (18-27 years; 25.0%) and (28-37 years; 23.5%). Furthermore, many of the respondents (47.2%) were residents of Rivers state while those residing in Akwa-Ibom state ranked lowest (26.0%). The result implied that participants in the study were adults who are eligible to participate in the NSIP poverty alleviation initiatives.

Communication Channels for Information Dissemination about National Social Investment Programmes (NSIP) Poverty Alleviation Initiatives in Nigeria

Result from Table 1 reveal that South-south residents were informed about the National Social Investment Programmes' (NSIP) poverty alleviation initiatives (N-Power, GEEP and CCTP) via multiple communication channels. Of these channels, face to face method, through town hall meetings and public seminars, was the means by which majority of the respondents (n=705; 86.9%) were exposed to NSIP poverty alleviation initiatives. Through this channel of communication, residents were able to listen and interact with officials and coordinators of the programmes to ascertain detailed information about the objectives of the various initiatives as well as how they can participate and benefit maximally from what is on offer through each subset of the programme. Radio (n=673; 83.8%) and television (n=566; 69.8%) were the two other communication channels through which South-south residents were informed about the National Social Investment Programmes' (NSIP) poverty alleviation initiatives while advertisements on billboard was the least (n=133, 16.4%).

Table 1: Communication Channels of Information

Communication Channels	Yes Freq=n (%)	No Freq=n (%)
Radio	673(83.0)	138(17.0)
Television	566(69.8)	245(30.2)
Newspaper	375(46.2)	436(53.8)
Outdoor/Billboard	133(16.4)	678(83.6)
Flyer/Poster	207(25.5)	604(74.5)
Face-to-face	705(86.9)	106(13.1)
Online (Internet)	209(25.8)	602(74.2)
Others (Please Specify)	-	-

Source: *Field Survey 2022*

Extent of Usage of Communication Channels for Information Sharing about NSIP Poverty Alleviation Initiatives

Communication channels (radio, newspapers, television, billboard, face to face, online) were utilised at varying degrees for information sharing about each of the three NSIP poverty alleviation initiatives (Government Enterprise and Empowerment Programme (GEEP), N-Power (Job Creation) Programme and Conditional Cash Transfer Programme (CCTP). For the three poverty alleviation initiatives, radio was the channel being used the most to a very high extent compared to the other communication channels. Table 2 presents the details.

Table 2: Extent to which Communication Channels Were Used

Items	VHE Freq. (%)	HE Freq. (%)	LE Freq. (%)	VLE Freq. (%)	Mean ($\bar{x}$)	Standard Deviation (SD)
Government Enterprise and Empowerment Programme (GEEP)					**3.60**	**0.93**
Newspapers were used to share information about GEEP	204 (25.2)	397 (49.9)	107 (13.2)	103 (12.6)	3.55	1.02
Information about GEEP was usually broadcast on television.	215 (26.5)	401 (49.4)	119 (14.7)	76 (9.4)	3.51	1.04
Information about GEEP was usually broadcast on radio.	253 (31.2)	465 (57.3)	55 (6.8)	38 (4.7)	3.89	0.89
Billboards were used to share information about GEEP	79 (9.7)	251 (30.9)	373 (46.0)	108 (13.3)	2.19	0.95
New/Online Social Media were used to share information about GEEP	109 (13.4)	207 (25.5)	299 (36.9)	196 (24.2)	3.08	0.80
Flyers and Posters were used to share information about GEEP	231 (28.5)	235 (29.0)	207 (25.5)	138 (17.0)	3.59	0.86
Information about GEEP was shared during town hall meetings and public seminars.	315 (38.8)	329 (40.6)	113 (13.9)	54 (6.5)	3.92	0.85
N-Power (Job Creation) Programme					**3.53**	**1.10**
Newspapers were used to share information about N-Power programme.	219 (27.0)	388 (47.8)	105 (12.9)	99 (12.2)	3.82	1.08
Information about N-Power job creation was usually broadcast via television.	205 (25.3)	379 (46.4)	110 (13.6)	117 (14.4)	3.57	1.09
Information about N-Power job creation was broadcast via radio.	289 (35.6)	315 (38.8)	109 (13.4)	98 (12.1)	3.99	1.07
Billboards were used to share information about N-Power.	101 (12.4)	197 (24.3)	396 (48.8)	117 (14.4)	2.18	1.11
New/Online Social Media were used to share information about N-Power.	113 (13.9)	218 (28.9)	298 (36.7)	182 (22.4)	2.32	1.08
Flyers and Posters were used to share information about N-Power programme.	207 (25.5)	313 (38.6)	187 (23.0)	104 (12.8)	3.67	1.13
Information about N-Power job creation was shared during town hall meetings and public seminars.	295 (36.4)	289 (35.6)	119 (14.7)	108 (13.3)	3.89	1.18
Conditional Cash Transfer Programme (CCTP)					**3.51**	**0.95**
Newspapers were used to share information about CCTP	215 (26.5)	299 (36.9)	196 (24.2)	101 (12.4)	3.60	1.07
Television was used to broadcast information about CCTP	190 (23.4)	327 (40.3)	191 (23.5)	103 (12.7)	3.35	0.88
Radio was used to broadcast information about CCTP	257 (31.7)	296 (36.5)	203 (25.0)	55 (6.8)	3.98	0.97
Billboards were used to share information about CCTP	197 (24.3)	188 (23.2)	296 (36.5)	130 (16.0)	2.16	1.14
New/Online Social Media were used to share information about CCTP	155 (19.1)	285 (35.1)	228 (28.1)	143 (17.6)	2.06	0.92
Flyers and Posters were used to share information about CCTP	199 (24.5)	305 (37.6)	105 (12.9)	202 (24.9)	3.60	1.00
Information about CCTP was shared during town hall meetings and public seminars.	291 (35.8)	288 (35.5)	119 (14.7)	113 (13.9)	3.85	1.15
Average Weighted Mean					**3.59**	**0.95**

Source: Field Survey 2022

KEY:* VHE=Very High Extent, HE=High Extent, LE=Low Extent, VLE=Very Low Extent;Decision Rule: if mean is ≤ 1.49 = Very Low Extent, 1.5 – 2.49 = Low Extent, 2.5 – 3.49 = High Extent, 3.5 – 4.0 = Very High Extent*****

The result in Table 2 shows that communication channels were used in sharing information on NSIP poverty alleviation initiatives to very high extent ($\bar{x}$= 3.59) on a 4-points scale. The measurement parameters indicate that information on Government Enterprise and Empowerment Programme (GEEP) was spread to a very high extent ($\bar{x}$= 3.60) using various communication channels with radio being used most to a very high extent (($\bar{x}$= 3.89). For N-Power (Job Creation) Programme, the communication channels were also used to a very high extent ($\bar{x}$= 3.59); and radio ($\bar{x}$= 3.99) was the most used to a very high extent. Additionally, for Conditional Cash Transfer Programme (CCTP), information was shared to a very high extent ($\bar{x}$= 3.51) through various communication channels; and radio ($\bar{x}$= 3.98) was the channel respondents indicated as being used the most to a very high extent. Since the federal government was clear that the goal of the National Social Investment Programmes were to mobilize the masses out of poverty, it is only logical that multiple communication channels were utilised as discovered from this study. And this is used to engage as many individuals as possible so as to motivate them to participate and benefit from any of the initiatives under the NSIP.

Knowledge Level of NSIP Poverty Alleviation Initiatives among Residents of South-South, Nigeria

Findings show that respondents had a high knowledge level of the NSIP's poverty alleviation initiatives ($\bar{x}$= 3.71; SD=1.04). Table 3 presents the knowledge level residents of South-South have of each of the three poverty alleviation initiatives.

Table 3: Level of Knowledge about NSIP poverty alleviation initiatives in Nigeria

Items	**VHE Freq. (%)**	**HE Freq. (%)**	**LE Freq. (%)**	**VLE Freq. (%)**	**Mean ($\bar{x}$)**	**Standard Deviation (SD)**
I know that the N-power programme provides employment and skills training for youths	77 (9.5)	185 (22.8)	401 (49.4)	214 (26.4)	2.57	1.03
I am aware that participants in the N-Power (Job Creation) programme are paid NGN30'000 stipends monthly	211 (26.0)	280 (35.5)	155 (19.1)	165 (20.3)	3.66	0.92
I have knowledge that through GEEP programme government offers interest-free loan of NGN10'000 to NGN 300'000 to applicants	207 (25.5)	279 (34.4)	167 (20.6)	158 (19.5)	3.74	0.99
I know the GEEP offers financial support to traders	218 (26.8)	379 (46.7)	139 (17.1)	75 (9.2)	3.78	0.93
I know of many traders who benefited from GEEP programme	107 (13.2)	176 (21.7)	309 (38.1)	219 (27.0)	2.45	0.97
I know that through the CCTP, participants are offered ₦5'000 bi-monthly stipend	267 (32.9)	311 (38.3)	101 (12.4)	132 (16.3)	3.91	1.10
I am aware that anyone who applies and qualifies, can get the benefit from CCTP	201 (24.8)	387 (47.7)	105 12.9)	118 (14.5)	3.96	0.96
I am familiar that through CCTP, funds are transferred to the needy	113 (13.9)	231 (26.3)	430 (53.0)	37 (4.5)	2.49	1.11
Average Overall Mean					**3.71**	**1.04**

Source: Field Survey 2022

KEY: VHE=Very High Extent, HE=High Extent, LE=Low Extent, VLE=Very Low Extent;***Decision Rule: if mean is ≤ 1.49 = Very Low Extent, 1.5 – 2.49 = Low Extent, 2.5 – 3.49 = High Extent, 3.5 – 4.0 = Very High Extent***

Participation in NSIP Poverty Alleviation Initiatives among Residents of South-South, Nigeria

Respondents reported a low level of participation ($\bar{x}$= 2.26; SD=1.21) in NSIP poverty alleviation initiatives. For government enterprise empowerment programme (GEEP), participation was $\bar{x}$= 2.35, participation in N-Power job creation programme was $\bar{x}$= 2.34, while for conditional cash transfer programme (CCTP), participation was $\bar{x}$= 2.24.

Table 4: Level of Participation in NSIP Poverty Alleviation Initiatives

Items	VHL Freq. (%)	HL Freq. (%)	LL Freq. (%)	VLL Freq. (%)	Mean ($\bar{x}$)	Standard Deviation (SD)
I participated in Government Enterprise and Empowerment Programme (GEEP)	120 (14.8)	117 (14.2)	435 (53.6)	139 (17.1)	2.35	0.94
I participated in N-Power (Job Creation) Programme	105 (12.9)	113 (13.9)	478 (58.9)	115 (14.2)	2.34	0.92
I participated in government's Conditional Cash Transfer Programme (CCTP)	- -	89 (11.0)	597 (73.6)	125 (15.4)	2.24	1.06
Participation in GEEP helped me to get interest-free loans for my business	- -	101 (12.4)	611 (75.3)	99 (12.2)	2.25	1.37
Participation in CCTP helped me to get free money to support my family for food, accommodation, medicare, and education	- -	59 (7.3)	639 (78.8)	113 (13.9)	2.10	1.26
Participation in N-Power helped me to acquire more skills for job opportunities	107 (13.2)	101 (12.4)	571 (70.4)	32 (3.9)	2.35	1.20
I got employment through my participation in N-Power	- -	- -	451 (55.6)	360 (44.4)	1.00	1.22
I applied but could not secure participation in N-Power	117 (14.4)	389 (48.0)	135 (16.6)	170 (21.0)	2.52	1.27
I was not convinced that the poverty alleviation initiatives is true so I did not participate in any of them	276 (34.0)	291 (35.9)	113 (13.9)	131 (16.2)	3.63	1.41
Average Overall Mean					2.26	1.21

Source: Field Survey 2022

KEY: VHL=Very High Level, HL=High Level, LL=Low Level, VLL=Very Low Level;***Decision Rule: if mean is ≤ 1.49 = Very Low Level, 1.5 – 2.49 = Low Level, 2.5 – 3.49 = High Level, 3.5 – 4.0 = Very High Level***

Furthermore, items in the scale indicate that the government enterprise empowerment programme (GEEP) only helped a few participants acquire interest free loans for business start-ups ($\bar{x}$= 2.25), and that participating in CCTP did not help many to get free money to support family for food, medicare, and education ($\bar{x}$= 2.10). Similarly, participation in N-Power job creation programme was very low ($\bar{x}$= 2.35) among residents of South-south, Nigeria because it did not help many acquire more skills for job opportunities, while the level of those who got employment opportunities through participating in N-Power programme was also very low ($\bar{x}$= 1.00). This was the case because those who applied but could not secure participation in N-Power ($\bar{x}$= 2.52) and those who were not convinced that the poverty alleviation initiatives is true and as a result did not participate in any of them ($\bar{x}$= 4.47) were both high.

From the result, it can been established that although residents of South-south Nigeria had a high level of knowledge of NSIP's three poverty alleviation initiatives (GEEP, N-Power, and CCTP), they did not participate very well and adequately in these poverty alleviation initiatives. What this also implies is that many of them were not able to benefit from the provisions made by government through these schemes, which could have improved their living conditions. This is rather worrisome considering the huge amount of resources been spent in implementation of these schemes. The government have continuously maintained that large sums of money in have been spent in carrying out these poverty alleviation programmes in various parts of Nigeria including the South-south region.

4. Analysis and Presentation of Research Hypotheses

Decision Rule

The pre-set level of significance for this study is 0.05. The hypotheses presumed that there was no significant influence between the variables under consideration. If the P-value which indicates the significance or the probability value exceeded the pre-set level of significance (P >0.05), the hypothesis stated in the null form was accepted, however, if the P-value was less than or equal to 0.05 (P ≤0.05), the null hypothesis was rejected.

Hypothesis one ($H_0$1): Communication channels will not significantly influence the knowledge of NSIP poverty alleviation initiatives among residents of South-South, Nigeria

Table 7: ANOVA & Model Summary Testing Significant Influence of communication channels on knowledge of NSIP poverty alleviation initiatives among residents of South-South, Nigeria

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5332.613	2	3003.007	22.404	0.000[b]
	Residual	12177.705	808	20.106		
	Total	17501.318	810			

R=.411	R Square= .407	Adj. R Square=.403

Coefficients

Construct	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	11.091	2.203		1.210	0.000
Communication channels	0.093	.411	0.047	1.004	0.003

Dependent Variable: Knowledge of NSIP poverty alleviation initiatives

(Field Survey, 2022) *Note: β= Standardized Coefficient, significant at 0.05*

Table 7 indicate that communication channels had a positive significant influence on the knowledge of NSIP poverty alleviation initiatives among residents of South-south, Nigeria ($F_{(2, 808)}$= 22.404, *Adj.* R^2= 0.403, $P \leq 0.05$). Explanation from the result further reveals that communication channels of NSIP poverty alleviation initiatives significantly influenced South-south residents' knowledge of the schemes capable of fostering participation among them (β= 0.093, *R*= 0.411, *T*= 1.004, $P \leq 0.05$). The common understanding from literature and communication practice is that knowledge of a phenomenon can be enhanced through communication channels that seek to broaden

people's understanding of the concept in question. Analysis of results from this study supports that notion as it indicate that communication explained up to 40.3 per cent (*Adj*. R^2 = 0.403) variation of influence on knowledge of NSIP poverty alleviation schemes among residents in South-south, Nigeria. Consequent upon this result, the null hypothesis that effective communication channels will not significantly influence the knowledge of NSIP poverty alleviation initiatives among residents of South-south, Nigeria was rejected and restated accordingly.

Hypothesis Two ($H_0$2): Communication channels will not significantly influence participation in NSIP poverty alleviation programmes among residents of South-South, Nigeria

Table 8: ANOVA & Model Summary Testing Significant Influence of Effective Communication on Participation in NSIP Poverty Alleviation Schemes among Residents of South-South, Nigeria.

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	11311.011	2	4310.339	151.103	0.007
Residual	7335.052	808	21.250		
Total	18646.063	810			

R=.073	R Square= .042	Adj. R Square= .042

Coefficients

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	R		
(Constant)	15.021	2.131		7.302	0.000
Communication	0.033	.013	0.040	1.058	0.002

Dependent Variable: Participation in NSIP poverty alleviation initiatives

(Field Survey, 2022) *Note: β= Standardized Coefficient, significant at 0.05*

Results in Table 4.3.2 reveals the analysis on influence of communication channels on participation in NSIP poverty alleviation programmes and depicts that communication channels ($F_{(2, 808)}$ =151.103, *Adj*. R^2 = 0.042, $P \leq 0.05$) had an influence on participation in NSIP poverty alleviation initiatives among South-south residents, and can account for only 4.2 per cent (*Adj*.R^2 = .042) of variation in poverty alleviation programme participation among residents. Results of further analysis in the coefficient Table 4.3.2 showed that communication channels (β= 0.033, R= 0.040, T= 1.058, $P \leq 0.05$) had influence on participation, implying that continuous use of communication channels will likely lead to increase in participation in the NSIP poverty alleviation initiatives. Therefore, the null hypothesis is rejected that: communication channels will not significantly influence participation in NSIP poverty alleviation programmes among residents of South-South, Nigeria. This implies that having full knowledge of various poverty alleviation programmes through the communication channels will result in participation in the NSIP poverty alleviation initiatives among residents of South-south Nigeria.

5. Discussion of findings

Findings showed that majority of the respondents got to know about the specific programmes under the National Social Investment Programmes (NSIP) poverty alleviation initiatives, the GEEP, N-Power and CCT, to a very high extent through the various communication channels used. In specific terms, the overall knowledge of the NSIP poverty alleviation programmes shows a very high extent with knowledge about the Conditional cash transfer (CCT) and the Government Enterprise and Empowerment Programme (GEEP) ranking the highest. To buttress the importance of knowledge, Fombad (2018) studied knowledge management for poverty eradication, the study location was South Africa. The study was focused on analysing poverty issues and investigating some of the key contributions that knowledge management can make in the eradication of poverty, and the findings revealed that investment in knowledge management can enhance poverty alleviation efforts and result in improvement in living standards hence knowledge is an important precondition for solving the poverty problem. The study highlighted the importance and relevance of

knowledge management in poverty alleviation using proven communication and knowledge-sharing tools and channels such as the internet. This result from this current study which examined knowledge level of south-south residents on NSIP poverty alleviation initiatives infers that the knowledge of South-south residents was enhanced through face-to-face, radio, television, newspaper, billboard, poster/ flyer and online which were used as communication channels to share information about NSIP, and that continued usage of these channels in disseminating information of the NSIP poverty alleviation initiatives had enabled the NSIP programme owners to reach target beneficiaries with sufficient knowledge about the programme.

The result showed that several communication channels such as face-to-face, radio, television, newspaper, billboard, flyers/posters and online were deployed for the NSIP poverty alleviation initiatives and the communication channels enabled respondents gain adequate knowledge about the NSIP initiatives. Overall, the result showed that face-to-face through town hall meetings and public seminars was the most used, followed by radio, television and newspaper were the most beneficial communication channels. The finding corroborates that of Happer and Philo (2013) who in their study of how communication channels aid the construction of social belief, averred that communication channels (mass media) play a central role in informing the public about what happens and events happening around the world, particularly in those areas in which audiences do not possess direct knowledge or experience. In aligning with their finding, and within the context of this current study, it can be deduced that without the role played by the various communication channels, especially face-to-face and radio, many residents of South-south, Nigeria might not have received information concerning NSIP poverty alleviation initiatives hence will be unaware of the likely benefits that they might gain from the poverty alleviation initiatives being promoted by the government with the aim being to reduce poverty rates.

Massa (2016) identified channels of communication as a part of the most essential elements of the entire communication effort. The author noted that unless the right channel is utilized in communicating important information to an audience, relevant information may not be excellently communicated to the extent that it will elicit the expected responses. The implication of this finding suggests that adoption of the right communication channels can enable disseminate of rightly information that can benefit the society. The findings also supports the observations of other authors who studied communication channels and poverty alleviation such as Oba, Imran, and Ahmad (2020) who investigated the effectiveness of communication channels on the promotion of agricultural policy to curb poverty, Fernando and Mora-Rivera (2021) who investigated the impact of internet access on poverty reduction and Yang, L., Lu, H., Wang, S. et al. (2021) who studied mobile internet use and multidimensional poverty using evidences from the household survey in rural China.

Furthermore, findings in this study agrees with some previous studies (Lunenburg, 2010; Massa, 2016) that communication channels are used in disseminating relevant information and sharing ideas to the appropriate audience and when maximally utilised may lead to the intended outcome. Keyton (2017) identified face-to-face communication through town hall meetings and public seminars as a communication channel that possesses both formal and informal characteristics. This position agrees with the findings of Oba, Imran, and Ahmad (2020) and Ngumbo, Ndeti, and Muchemi (2017) that suggested the use of face-to-face communication as channel of communication for government development projects is beneficail in better understanding of the message. This study also revealed that use of multiple channels can be beneficial, as supported by findngs from previous other studies conducted by Obirieze, (2012) which investigated the use of rural broadcasting in reducing poverty in the south-east, Nigeria and found that use of rural broadcasting to reduce poverty has not yielded many positive results. It suggested the use of multiple channels, beyound just broadcast channles (radio and telelvsion) and to include billboard, online and importnatly face- to-face which enhance the opportunities of participatory communication.

Regarding participation, the results from this study revealed that the extent of participation in NSIP poverty alleviation initiatives among residents of South-south, Nigeria is low extent. The finding is indicative of the fact that respondents in this study did not participate very highly during the implementation of NSIP poverty alleviation schemes. Respondents who were not convinced that the poverty alleviation initiatives is true so did not participate in any of them (GEEP, N-Power and CCT) were high. This shows that trust factor played a role in non-participation. This can be traced to previous similar poverty alleviation programmes which have been implemented without evidence to the improvement to the life of the people who were to benefit from them. This also shows that people do not

always have faith in government promises and programmes because of previous experiences.
Those who said they participated in the Government Enterprise and Empowerment programmes (GEEP) and the N-Power job creation programme were more that those who participated or benefited from the Conditional Cash Transfer (CCT). It further showed that although communication channels used were able to enhance knowledge of the NSIP (GEEP, N-Power, and CCT) poverty alleviation initiatives among residents of South-south, it failed to drive participation highly among respondents. This result corroborates those of Ajakaiye (2003), Ojo (2008), Aiyedogbon and Ohwofasa (2012) and Adedayo (2018) who noted low masses participation in previous poverty alleviation programmes in Nigeria resulting in the failure recorded during their implementation. According to these past studies, reasons such as lack of trust, politicization, nepotism, over-centralization or over decentralization, poor management, poor coordination of the different stakeholders, poor planning and design, poor or lackadaisical implementation, ineffective monitoring mechanism set in place, weak infrastructural development, poor governance, among other factors resulted in participation apathy among the populace. This lack of participation is responsible for a high percentage of citizens who still wallow in abject poverty despite myriads of poverty alleviation programmes implemented by successive governments.

6. Conclusion

This study set out to investigate communication channels, knowledge and participation in the NSIP poverty alleviation initiatives among residents of South-south, Nigeria. As guide for the study, five research questions and two null hypotheses were formulated. Communication channels used in sharing information on National Social Investment Programmes (NSIP) on poverty alleviation include face-to-face, radio, television, newspaper, billboards and poster/flyers. These communication channels were used to a very high extent and the channel through which most respondents received information is face-to-face. Respondents' knowledge of poverty alleviation schemes was high. Findings showed that participation in NSIP poverty alleviation schemes was low among respondents. Residents of South-south Nigeria participated lowly in GEEP, CCTP and N-power programmes. Communication channels had a significant positive influence on the knowledge of the various NSIP poverty alleviation initiatives among residents of South-south.

7. Recommendations

Based on findings from this study, the following recommendations are made:

Firstly, there is need to sustain communication channels such as face-to-face and radio so that knowledge level about the NSIP can be continued. Considering that many rural dwellers are the targets of poverty alleviation programmes, development agents should concentrate more on using such channels, especially face-to-face contacts to enable them reach more people and convince them to participate fully.

The government, through the Ministry of Humanitarian Affairs and Disaster Management should intensify efforts to address the difficulties in participation in the various NSIP poverty alleviation programmes – GEEP, N-Power and CCT. This can be done by simplifying and reducing the steps involved in the process of participation and by ensuring that proper mechanism are put in place to enable future programmes get to the grassroots and benefit the poorest of the poor in different parts of the country. Since the success of poverty alleviation programmes is tied to the level of people's participation in them, government must find a way to remove doubts and sufficiently convince the masses of their intention to help them out of poverty.

Also, The NSIP planners and relevant agencies should give wider publicity to further simplify the participation process and publicize beneficiaries' details, using all the communication channels, to encourage more participation in the NSIP poverty alleviation initiatives. Failure to participate in poverty alleviation programmes as seen in this study could also imply that not all the right people who should know about the programmes did have knowledge of it. Government should ensure that information about future programmes are given wider publicity through other communication channels such as religious bodies, market groups, artisans associations and cooperative societies, this will encourage many others to participate.

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Nutritional Outcomes of Farm Households in Nigeria: To What Extent Does Farm Production Diversity Influence Households' Diets?

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Abstract. It has been widely confirmed that diversity in farm production is a strategy for enhancing nutritional outcomes of smallholders as malnutrition remains widespread in the poor population most especially the Sub-Sahara Africa smallholder households. Hence, the question of what extent does farm production diversity influence nutritional outcomes of farm households in Nigeria. This study used 2012-2016 nationally representative households panel data. Two measures of smallholder nutritional outcomes quantities of food calories consumed, and dietary diversity were used as the outcome variable. A food group-based index was used in the estimation of farm production diversification. The farm households have low farm diversity with an index of 0.31. Seasonal analysis of the nutritional outcomes revealed seasonal consumption poverty as the average calorie consumption and dietary diversity were higher in the seasons of the post-harvest than in the post-planting. Production diversity has a positive significant influence on the nutritional outcomes of farm households. Other demographic drivers of nutritional outcomes were location (rural areas), limited market access, sex, age, and income of the household heads. This study confirmed that even-though, farm production diversity is a crucial factor influencing households' nutritional outcomes, it is important that policy issues aimed at improving households' nutritional outcomes focus on increasing farm production and market-related aspects of smallholder agriculture.

Keywords: Calorie, Consumption, Livestock, Market, Season

1. Introduction

Closely, nutrition is linked to agriculture, not because the food comes from agriculture, but because the majority of the undernourished are smallholder farmers who are residents of rural areas in the most developing world (Koppmair, et al., 2017). Policy Interventions aimed at agricultural development have primarily focused on how to improve household food security through increased access to food staples from the own production of farmers. However, despite these policy efforts, chronic malnutrition remained the key challenge among rural populations and this calls for a paradigm shift in policy issues aimed at addressing this challenge. Increasing farm households' access to diverse foods either through own farm production or through the market are some of the policy interventions aimed at improving nutritional outcomes at individual and household levels.

Improving nutritional outcomes of households has remained a problem in much of the developing world. Yet, improve in food and nutrition security is an important strategy as far as the UN's Sustainable Development Goals (SDGs) are concerned. Globally, over 800 million people are still chronically hungry. This hunger has been attributed to access to food being dependent on access to income (FAO, 2015; United Nations, 2017). However, access to income and its distribution largely is unequal, thus promoting poverty, malnutrition, and hunger (Reardon et al., 2000; Van Campenhout et al., 2016). This implies that the distribution of income unequally is that access to the market may not be a pathway sufficient enough to improve food and nutrition security. Therefore, diversity in farm production remains an option to improve the food and nutrition security of households and thus would reduce the effects of unequal distribution of income (Godfray et al., 2010; Jones et al., 2014; Minten and Barrett, 2008).

A variety of nutrition interventions such as nutrient supplementation, food bio-fortifications, and nutrition education have been formulated in many countries to improve the quality of the diet (Pingali, 2012; Johns and Eyzaguirre, 2007). Diversification in agricultural production is one of the advocated strategies to address the nutritional challenges of households' (Koppmair et al., 2017; Powell et al., 2015; Bahadur et al., 2015; Pellegrini and Tasciotti, 2014; Burlingame and Dernini, 2012). At many levels, agrobiodiversity exists, from various ecosystems in which people grow crops and raise livestock from different species to the breed or genetic variability (Frison et al., 2011). Recently, various national policies have been used to define crop types that farmers grow. This has however given a strong indication that farm production diversity is still an important focus for policy intervention toward food and nutrition security. Diversity of farm production enhancement in smallholder has gained increased attention recently particularly due to its potential to enhance food and nutrition security of rural households' (Fanzo et al., 2013; Koppmair et al., 2017; Ecker, 2018).

There have been knowledge gaps in understanding the linkages between farm production diversity and food and nutrition security. These gaps are more evident in small-sector farm households that accounted for the largest proportion of the population that is chronically poor. Some studies stated that market access is more important than diversity in farm production for improved food and nutrition security (Sibhatu et al., 2015). However, in the developing world, as regards smallholder farmers, market infrastructure is poor and there is unequal income distribution, this could be unrepresentative largely. Moreover, Haddinott, (2012) and Jones et al., (2014) posited that farm production diversity is more important than market access. Studies like Jones et al., (2014); Islam et al., 2018; Whitney et al., (2018) addressed the nexus of agriculture (farm production diversity) and nutrition insecurity. However, empirical evidence is still scarce, scanty, insufficient, and disjointed as stated by Shariff and Khor, 2005; Mello et al., 2010; Webb and Kennedy, 2014). Despite this knowledge gap, agriculture and nutrition security are of importance in the eradication of chronic hunger, malnutrition, and chronic poverty (FAO, 2015; Webb and Kennedy, 2014).

Disjointed studies on the agriculture-food security-nutrition nexus have been more evident in the literature. Arndt et al. (2016) and Arndt and Tarp (2017) analysed Sub-Saharan Africa (SSA), and food security (food poverty) but no clear linkages between food security and farm production diversity. Sibhatu et al. (2015) showed results of the association between dietary diversity and market access. Van Campenhout et al. (2016; 2017) in Uganda, studied food poverty but exclude farm production diversity or nutrition from the study. Sekabira and Qaim (2017b) only studied dietary diversity using data from two districts in central Uganda. Besides, a joint study by Jones et al. (2014) and Islam et al. (2018) associated farm production diversity with the dietary diversity of households in Malawi and Bangladesh, respectively. However, Jones et al. (2014) made use of cross-section data but no causal inferences. Islam et al. (2018) on the other hand used panel data but did not explore micronutrient links. Yet, Haddinott (2012) and Jones et al. (2014) agreed that a comprehensive study of diets and nutrition is important in understanding farm households' agriculture-nutrition linkages. Ayenew et al., (2018) estimated the effects of farm production diversity on the nutritional outcomes of farm households' in Nigeria and found that in post-harvest season, an increase in farm production diversification is associated with an increase in dietary diversity, and that, production diversification does not have a significant contribution to the dietary diversity at post-planting.

Therefore, a significant gap exists in literature and inappropriate policy guidance concerning farm production diversity (agriculture), food security, and nutrition security nexus. This study sought to examine the linkages between farm production diversity within farm households in Nigeria, specifically focusing on households' nutritional outcomes using the Nigerian General Household panel data.

2. Materials and Methods

This study used consumption and production data extracted from the Nigerian General Household Survey (GHS)–Panel spanning 2012 /2013 and 2015/2016. This data was collected by World Banks's Living Standards Measurement Study – Integrated Surveys on Agriculture. A total of 11653 households with full information consisted of 2968 households in 2012, 2982 households in 2013, 2819 households in 2015, and 2884 households in 2016. To construct a measure of nutritional outcomes and production diversity of the farm households, the over 100 food items captured by Nigeria's General Household Survey were aggregated into twelve (12) as stated below:

Table 1: Aggregation of Food Items into Groups

Group	Components	Food Items
	Cereals	Local rice, imported rice, wheat flour, bread, biscuits and all baked food, maize grain, corn flour, maize tortilla, popcorn, Guinea corn, sorghum, millet.
	Pulses/legumes/Seeds/Nuts	Soyabeans, Bean-white, Beans-brown, bean cake (akara), moinmoin and groundnut, other pulses, and their products, Groundnut, sesame. Pigeon pea.
	Roots/Tubers/Plantain	Cassava flour, Garri-white, Garri-yellow, Tapioca, Yam Flour, Cocoyam, Water yam, Potatoes.
	Meats/poultry/ offals	Beef, Mutton, Pork, Goat Meat, Canned Beef, Wild-Game Meet, chicken
	Fish /Sea Foods	Frozen Fish, Fresh Fish, Smoked Fish, Snail, Crab, Prawn, Lobster
	Eggs	Agric. Eggs, Local Eggs, Quail Eggs
	Fruits	Cucumber, Eggplant, Tomatoes, Hot/Chili Pepper, Okra, Banana, orange/tangerine, mangoes, avocado pear, pineapples
	Vegetables	Green Vegetables, Spinach, Cabbage, Lettuce etc
	Fat and Oil	Palm oil, Groundnut oil, Palm kernel oil, Butter/Margarine
	Dairy/Milk	Milk, coffee, tea, non-alcoholic beverages, alcoholic
	Sweeteners	beverages, Sugar, jam, honey
	Other foods/Condiments	Spices, Salt, Garlic, Ginger, Onion

Variables Measurement

Households' Nutritional Outcome

Two measures of nutrition (quantities of food calories consumed, and dietary diversity) were used as the outcome variable. The number of calories consumed was used as a measure of the food security (access to food) quantity dimension, while dietary diversity was used as a proxy for the quality of diets. Dietary diversity is a well-recognised and attractive indicator of food access as stated by Kennedy et al., 2011; Swindale and Bilinsky, 2006; Hoddinott and Yohannes, 2002, Secondly, since the typical Nigerian diet is energy-dense, hence dietary diversity, was used as a proxy of nutrient adequacy (Swindale and Bilinsky, 2006).

Calorie Intake Estimation: According to Rischke, (2015), average per capita daily calorie household consumption was estimated by standardising quantities of food consumed per kilogram as provided in the survey manual of the Living Standard Measurement Study (LSMS) by using local units conversion factors to the standard unit. Each food calorie content was derived by multiplying the quantity of food by the per kilogram calorie conversion factor. The household 'i' in period 't' per capita calorie consumption is given as:

$$CI_{it} = \sum_{k=1}^{n} B_{kit} A_k \Big/ Z_{it} \quad (1)$$

Where CI_{it} is the household 'i' in period 't' per capita calorie consumption, B_{kit} is the food quantity in weight in kilogramme consumed by household 'i' in period 't', A_k is the nutrient content per kilogramme of food commodity k that is standardized, Z_{it} is the household size 'i' at time 't'. To obtain per capita calorie intake, the values of food calories obtained were divided by the number of adult equivalent in a household.

Food Consumption Dietary Diversity: Dietary Diversity has always been modeled in the literature with either Dietary Diversity Score (DDS) by Vadiveloo *et al.*, (2015) and Kim *et al.*, (2017), or Dietary Diversity Index (DDI) by Freire and Rudkin (2019). Following Freire and Rudkin (2019), dietary diversity index was constructed from food consumption expenditure of households using the berry index as stated thus:

$$DDI_{it} = 1 - \sum_{g=1}^{n} S_{git}^2 \quad (2)$$

where DDI_{it} is the Dietary Diversity Index, S_{git} is the consumption expenditure share of food group 'g' by household 'i' in time 't', and 'n' is the total number of food groups (Thiele and Weiss, 2003; Liu *et al.*, 2014). This index ranges between 0 and 1, with a value toward 1 implying higher dietary diversity.

Farm Production Diversity: Studies have used various measures of farm production diversity. Past studies (Hawksworth, 1995; Meng et al., 2010), have focused on assessing genetic diversity at the farm and on biodiversity using various measures. One of the widely used measures is species count which is a simple farm count variable capturing not only the crop produced but the livestock species produced regardless of its purposes (Jones et al., 2014, Sibhatu et al., 2015). This measure is limited as it did not account for the difference in terms of nutritional functions of crops and livestock that are produced on the farm (Berti, 2015). However, koppmair et al., 2017; Hirvonen and Haddinott, 2017; Sibhatu and Qaim, 2018b) were used as an alternative farm production diversity score because of the species

count limitation in estimating production diversity. A minor modification was done for this study to the farm diversity score to generate a farm diversity index. This study, therefore, used the ratio of the number of food groups produced on the farm to the total number of aggregated crop and animal food species categorized into twelve as shown in Table 1. From this, the farm diversity index was estimated to assess different crop and livestock nutritional functions produced by smallholders as proposed by Berti (2015). For instance, a household (1) that cultivates groundnuts, rice, okra, and keeps chicken will have a production diversity index of 4/12=0.33 in the sense that the household produced four (cereals; pulses; fruit; meat) different food groups. Besides, if the second household cultivates millet, maize, and rice and also keeps cattle will have a farm diversity index of 3/12=0.25. This is because, millet, maize, rice, and cattle can be derived from three food groups (cereals; meat; and milk and dairy products). Conversely, if the third household produces rice, maize, rice, barley, and wheat, the household will have a production diversity index of 1/12=0.08 as all the crop species come from only one food group. Therefore, first and second households will have a diet that is more diverse than the third household whose farm production is only on cereals. To ensure that both crop and animal species are not counted in two, for instance in the case of a household that produces chicken. The chicken was counted as meat and not eggs. Eggs were only counted if they were produced actually by the household.

Estimation Model

To measure the effects of diversity in farm production on the quantities of food calories consumed, and dietary diversity of the household at the individual level, quantities of food calories consumed, and dietary diversity were specified as a function of the farm household production diversity, households' and individual characteristics. The model specification is specified as follows:

$$Y_{it} = \beta_0 + \beta_1 P_{it} + \beta_2 X_{it} + \varepsilon_{it} \quad (4)$$

Where Y_{it} is a measure of the logarithmic value of dimensions of household food and nutrition security outcomes (per capita daily calorie intake (kcal), and dietary diversity), P is a vector of production diversity, X_{it} is a vector of variables of market integration and households' characteristics, and ε_{it} is the error term. Equation (4) was estimated using the random effects estimator. Explanatory variables were operationalized as follows:

- Farm Production Diversity (index)
- Market Integration (Commercialisation index)
- Season (Surplus/Post-Harvest): 1 for data collected in the post-harvest season, 0 for the post-planting season;
- Location (Rural): 1 for households located in a rural area, 0, otherwise;
- Sex (Male): 1 for male-headed households, 0 otherwise;
- Marital status: 1 for married household head, 0 otherwise;
- Age of the household head (years);
- Education (Formal): 1 for a household head with formal education, 0 otherwise;
- Income status (Low): 1 for household classified as relatively low income, 0 otherwise;
- Livestock Holding: 1 for household engaged in livestock farming, 0 otherwise;
- Non-farm participation: 1 for households engaged in non-farm livelihood activities, 0 otherwise;
- Dependency ratio: 1 for households with under-five years children; 0 otherwise; and
- Agro-ecological zone: There are six dummy variables for the zones as also included in the analysis.

3. Results and Discussion

Farm Household Demographic Characteristics

The information about farm household demographic characteristics by region and location is discussed as shown in Table 2. The mean age of the head of the farm household was 52 years with an average household size of 6 persons. The northern region and rural area accounted for a higher proportion of dependants. 21% of the farm households were headed by a female, with the highest (30.2%) regional occurrence in the South-West. Information on food items consumed and their associated expenditure values revealed that cereals (92.1%), roots/tubers/plantain (90.8), and animal products (72.2) were mostly consumed food items. Meanwhile, expenditure on cereals has the highest expenditure share (33%), followed by roots/Tubers/Plantain (19.1%). Other common food categories include pulses/seeds/nuts (18.6%), animal products (14.3%).

Table 2: Farm Households Demographic Characteristics in Nigeria

Characteristics	**North-Central**	**North-East**	**North-West**	**South-East**	**South-South**	**South-West**	**Urban**	**Rural**	**Pooled**
Mean Age	55	58	60	54	52	50	52	53	52
Mean Household Size	8	8	7	6	7	5	6	6	6
Dependency Ratio	1.4	1.5	1.2	1.1	1.2	1.3	1.1	1.3	1.1
% Female-Headed Household	20.5	18.4	20.5	28.1	28..4	30.2	22.4	20.1	21.3
% married household Head	78.0	77.5	75.2	76.3	70.2	72.1	75.5	77.2	74.0
Mean Years of Schooling	5.4	5.2	4.2	7.8	9.4	8.9	7.3	5.1	5.8
% Housing Ownership	70.2	78.4	82.4	76.5	68.4	58.3	50.1	72.4	61.5
% households Food Consumption									
Cereals	93.4	90.3	91.1	94.5	90.8	91.1	90.1	93.5	92.1
Pulses/Seeds/Nuts	62.4	64.7	62.8	66.6	67.3	61.4	63.3	64.6	64.3
Roots/Tubers/Plantain	93.3	92.2	88.5	90.2	91.7	89.6	88.1	91.3	90.3
Fruits	38.8	42.2	44.7	56.5	56.8	45.3	44.8	48.7	46.8
Vegetables	44.6	45.4	52.3	60.2	58.4	59.8	55.5	58.9	60.4
Animal Products	70.1	72.2	71.4	73.3	74.6	79.2.1	72.5	75.6	73.3
Food Expenditure Share (%)									
Cereals	30	28.4	25.8	32.2	32.8	34.5	30.4	33.2	33
Pulses/Seeds/Nuts	17	18.3	17.6	19.2	19.5	18.1	18.8	18.8	18.6
Roots/Tubers/Plantain	20	22	29.9	22.1	19.3	21	19.8	19.8	19.1
Fruits	6.3	6.5	7.5	7	6	5.2	6.8	6.3	6
Vegetables	9	8	6	6.5	9	9	8	8	9
Animal Products Expenditure	11109.4	10147.4	10125.8	9125.5	9672.7	10542.2	1015.1	9861.3	10019.4

Source: Computed from LSMS Panel Data (2012-2016)

Table 3 also contains information on-farm resource use across zones and sectors in Nigeria between 2012 - and 2016. It was found that 41.8% of the farm households reported using fertilizer; 13.7% used pesticides; 30.1% used herbicides; 20.1% used purchased seeds, and 18.3% reported having used animal traction on their farm plots. Based on sectors, rural farm households used more fertilizer, herbicide, animal traction, and labour on their plots when compared to their urban counterparts. However, farm households in urban areas used more pesticides and purchased seeds. Moreover, labour input use captured by workdays showed that an average household labour workdays (131.2) are larger than that of hired labour workdays (40.6). Also, farm households' that resides in the local area cultivated more crop in all categories, and the main crop cultivated was cereals (45.4%) majorly maize followed by roots and tubers (40.5%).

Moreover, the types of livestock owned by farm households were also discussed. Goats and Chickens accounted for 67.3% and 64.8% of livestock owned by households. The results show that animal production has remained underexploited by farm households in Nigeria and the most reared livestock is the goat. The northern part of the country is famous for livestock production. This is due to the fact the ecology in the region characterised by low rainfall duration, longer dry season, and lighter sandy soils that are friendly to livestock production.
Comparing the results of farm production diversity revealed that the North-eastern part of the country has the highest (0.46) diversity in farm production followed by the North-central of 0.41. However, the South-west has the lowest farm production diversity value of 0.26. The mean farm production diversity index of 0.31 revealed farm households' more reliance on food purchases to meet their dietary needs than their production.

Table 3: Farm Households Resource Use in Nigeria

Main Income Activities/Resource Use	**North-Central**	**North-East**	**North-West**	**South-East**	**South-South**	**South-West**	**Urban**	**Rural**	**Pooled**
Post-planting (August–October)									
Agriculture (%)	58.6	65.7	62.8	48.9	38.8	35.7	30.9	66.5	62.5
Wage employment (%)	25.6	13.2	22.7	20.1	17.8	24.2	24.2	19.3	30.8
Nonfarm Enterprise (%)	10.8	9.3	7.4	20.3	18.4	15.3	18.3	8.6	12.6
Post-harvest (February–April)									
Agriculture	44.5	45.8	47.3	24.3	18.5	13.8	10.8	36.6	47.4
Wage employment	15.4	19.3	20.4	15.63	25.2	23.6	18.4	15.8	18.5
Nonfarm Enterprise	11.6	8.9	7.7	12.72	16.1	17.8	17.1	8.56	10.8
Farm Plot Holdings									
Number of Farm Plots	3.5	3.0	2.5	2.3	2.7	2.8	2.3	2.5	2.5
Average Farm Size (Hectares)	0.5	0.7	0.5	0.38	0.25	0.8	0.3	0.5	0.5
Farm Input Use									
% Fertilizer	38.4	51.7	52.8	46.8	28.0	29.3	40.4	44.1	41.8
% Pesticide	10.2	17.4	26.1	15.6	4.0	25.3	15.6	12.7	13.7
% Herbicide	38.1	35.2	40.0	17.0	15.4	30.1	22.2	31.6	30.1
%Purchased Seed	12.2	12.3	30.2	33.6	19.9	16.5	26.4	18.3	20.1
% Animal Traction	14.5	54.8	45.5	0	0	0	8.4	20.3	18.3
Average Workdays of Household Labour	178.4	185.2	153.2	92.4	111.4	94.1	92.3	150.2	131.2
Average Workdays of Hired Labour	45.2	43.3	54.8	21.11	26.4	64.4	30.4	41.6	40.6
The major crop is grown (%)									
Cereals	31.5	58.8	30.5	24.4	23.5	15.0	40.7	34.2	45.4
Pulses	36.9	28.5	13.2	16.4	16.2	18.3	24.4	18.3	30.2
Roots and Tubers	78.3	55.2	19.5	14.5	28.3	20.9	44.6	30.4	40.5
Fruits	34.6	21.3	33.2	30.4	33.3	20.4	26.3	22.1	27.6
Vegetables	29.2	25.1	28.6	33.4	35.7	38.5	26.4	33.8	30.1
Livestock Ownership (%)									
Calf (male)	2.2	5.8	2.5	0	0	0	0	2.7	2.2
Calf (female)	2.4	5.3	3.5	0	0	0	0	3.0	2.6
Cow	17.4	23.5	21.0	1.1	0.2	2.5	6.5	16.5	15.4
Bull	7.7	15.6	15.4	0	0	0	1.4	11.0	9.2
Chicken	2.7	19.4	3.8	0	0	0	0.4	5.9	5.2
Goat	60.8	72.1	79.1	56.0	45.8	53.7	58.8	68.7	67.3
Sheep	19.1	42.1	57.8	6.9	0.7	4.9	24.2	34.2	33.0
Chicken (local)	74.9	66.4	55.5	74.2	60.2	68.3	55.5	65.2	64.8
Duck	4.8	8.5	1.3	0	2.3	2.5	1.6	3.2	3.0
Guinea fowl	1.7	4.2	9.8	0	0	0	1.2	4.8	4.4
Utilization of Livestock									
Sales	24.4	45.3	20.5	36.0	32.6	21.2	24.3	28.9	28.5
Slaughter	29.5	38.9	19.2	37.9	29.2	36.1	29.2	29.0	29.0
Others	0.4	2.4	0.9	1.1	0.8	1.0	0.5	1.2	1.1
Mean Farm Production Diversity	0.41	0.46	0.39	0.31	0.30	0.26	0.28	0.32	0.31

Source: computation from LSMS panel data (2012-2016)

Results of Household Nutritional Outcomes

Presented in Table 4 were the results of the considered household nutritional outcomes. It was revealed that for the two waves, the average calorie consumption and dietary diversity were higher in the seasons of the post-harvest than in the post-planting. The amount of dietary diversity was higher in 2015/2016 compared to 2012/2013. Comparing the average per capita daily calorie consumption with the recommended FAO (2017) daily per capita calorie of 2500 kilocalories for developing countries, it was found that in post-planting seasons is lower (2483.62/2415.04 kilocalories) but higher (2606.82/2651.96 kilocalories) in the post-harvest seasons. The results imply that on average, farm household calorie consumption was inadequate in the post-planting seasons, but enough level of dietary diversity of calorie consumption during the post-harvest seasons. These findings must be lower than the per

capita daily calorie (2936.99 kilocalories) of Shittu et al., (2018) in the post-harvest season but higher than that of Sibhatu and Qaim (2017) with per capita calorie intake (2428 kilocalories).

Table 4: Dimensions of Household Food Nutritional Outcomes

	Mean	Standard Deviation	Minimum	Maximum
2012 (Post-Planting)				
Per capita calorie (daily)	2483.62	2214.51	564.08	9812.17
Dietary diversity	0.71	0.15	0.00	0.79
Real per capita value of food (weekly)	1014.46	975.22	42.18	13324.43
Total number of households in 2012 = 3869				
2013 (Post-Harvest)				
Per capita calorie (daily)	2606.82	2086.91	508.76	11412.03
Dietary diversity	0.74	0.15	0.00	0.81
Real per capita value of food (weekly)	966.52	956.73	42.34	12622.14
Total number of households in 2013 = 2968				
2015 (Post-Planting)				
Per capita calorie (daily)	2415.04	2063.18	501.01	10161.24
Dietary diversity	0.72	0.16	0.00	0.81
Real per capita value of food (weekly)	1013.12	966.29	47.16	14671.11
Total number of households in 2015 = 2819				
2016 (Post-Harvest)				
Per capita calorie (daily)	2651.96	2142.52	511.17	11182.13
Dietary diversity	0.76	0.17	0.00	0.82
Real per capita value of food (weekly)	994.85	948.26	47.84	14841.62
Total number of households in 2016 = 2884				

Effects of Households' Farm Production Diversity on their Nutrition Outcomes

Table 4, present the results of the effects of socioeconomic and farm production diversity factors on households' nutritional outcomes in Nigeria.

Farm Production Diversity: It was found that diversity in farm production influenced the nutritional outcomes of farm households positively. This implies that farm households' that are involved in the production of multiple portfolios of crop and animal species consume diverse diets, high quantities of food, and higher per-capita calorie consumption. This confirms the assertions that agricultural diversification is indispensable in smallholders' nutritional outcomes improvement either through own farm direct consumption or income generated from farm produce sales used in the purchase of food (Sibhatu et al., 2015; World Bank, 2007; Jones et al., 2014;), and thus it was assumed that income enhances access of smallholders' to more diverse food (Fanzo et al., 2013; Burlingame and Dernini, 2012). However, the magnitude of the influence is small (0.01) for per capita calorie consumption, (0.01) for dietary diversity and 0.02 for food quantity consumed. A similar result is found in Bangladesh by Islam et al. (2018) between diversity in farm production and dietary diversity score of households. Also, Whitney et al. (2018) and Koppmair et al., (2016), found in Uganda and Malawi respectively that diverse farm production influences dietary diversity scores of households positively.

Market Integration: this was captured by the commercialisation index calculated as the ratio of the sold value of farm produce to the total value of farm produce as used by Carletto et al., (2017) and Ogutu and Qaim (2019). It is plausible that market integration positively influences households' dietary diversity implying that commercialised farm households consumed more diversified diets than their less commercialized counterparts. According to Koppmair et al., (2017), income increase through markets sales could raise farm households' demand for more diversified diets on the demand side. This implies that higher incomes generated through the market from produce sales enabled farm households to buy a more diverse food from the market. Hence, market linkages through supply and demand sides, enable smallholder farm households to consume a diverse diet. It is argued that, on the supply side, the market can serve as a means of diverse and nutritious foods available to farm households, even across seasons (Snapp and Fisher, 2015). This reduces farm households' reliance on their food production for consumption, particularly during the off-season. In India, Gupta et al (2019) found that income from cereal crop sales significantly influence positively the dietary diversity scores for women.

Season: The surplus season was positively related to nutritional outcomes of farm households. This implies that farm households consumed more diverse diets and calories in post-harvest seasons (Farayibi and Owuru, 2016). This is because food supply and availability in the market are linked to season and this can in turn influence patterns of food consumption.

The findings indicate that smallholder farmers are vulnerable to seasonal consumption poverty, and often they struggle to achieve an adequate diet partly due to the seasonal nature of most agricultural products. Ayenew et al. (2018) found in season (post-harvest) is associated with an increase in dietary diversity of farm households in Nigeria.

Location: The results also show that farm households' resident plays a vital role in the nutritional outcomes. Households in the urban areas had lower per capita calories and more diverse diets than their rural counterparts. This finding implies rural farm households in Nigeria consumed more calories but had fewer diverse diets. Ideally, rural households should have direct access to what they produce and this could enhance dietary diversification (Weber, 2015), while the urban should only purchase what the market provides (Famine Early Warning Systems Network, 2017). The reverse is the case in this case as rural farm households have a lower dietary diversity. This result is in line with Freire and Rudkin (2019), where being a farmer is associated with lower food diversity. However, Snapp and Fisher, (2015) and Kissoly et al., (2020), found that urban farm households consumed more diverse diets as a result of their easy accessibility to markets. This study posited that smallholders in Nigeria mainly rural are constrained not only in terms of accessing the market for food variety but also lack the basic infrastructure that will improve their production. Hence, we can say that rural farm households in Nigeria are fewer food producers.

Sex: Male household headship was associated with significantly poorer nutritional outcomes in farm households'. This is because males are usually unaware of sufficient food quantities, feeding patterns of household members, or appropriate foods. This result support finding of Sekabira and Qaim (2017b), that where male headship impacted households' nutrition negatively.

Age: The age of the household head negatively influences their households' (calorie intake and dietary diversity) nutritional outcomes, which suggests that as household heads get older, members of their households' may not be able to afford adequate nutrient intake implying that their household members capacity to access food calories, and diet quality declines with age (Adekunle et al., 2020). This result is not in line with Koppmair et al. (2016) in Malawi, Sekabira and Qaim (2017b) in Uganda, and Islam et al. (2018) in Bangladesh which established a positive relationship between the age of household heads and dietary diversity.

Household Size: Household size was associated with significant decreases in nutritional outcomes of the farm households. It is expected that in an agrarian household, an increase in household size should provide labour for food production. However, the reverse is the case in this study implying that the majority of household members were dependently comprising both the elderly and young children who were not able to provide labour but must feed, thus there is an increase in the burden on food that is available. This is also found in Whitney et al. (2018) and Koppmair et al. (2016) an inverse relationship exists between household size and household dietary diversity score in Malawi.

Education: Farm Households' head educational level positively influenced the nutritional outcomes of members of their farm households. This implies that the more educated, the household head, the more easily in understanding the importance of a diverse diet and food calories (Pauzé et al., 2016). This was in line with expectations and most of the studies in the literature (Chegere and Stage, 2020; Ayenew et al., 2018; Koppmair et al., 2017; Murendo et al. 2018; Snapp and Fisher, 2015).

Income: The relationship between income and households' nutritional outcomes was negative. This implies that farm households' classified as low-income earners had lower real per capita consumption, calorie consumption, and diverse diet than their middle/high-income counterparts. This is because increase in income was associated with increasing diets diversity. Banerjee and Duflo (2011), argued that the poor do not always increase their food consumption even when their income increases confirming that increasing calorie intake and/or a dietary diversity was not a priority. In contrast, an increase in the income levels of smallholder farm households should lead to an increase in their diet quality. Several studies documented a positive result of income on food consumption of household (Chegere and Stage, 2020; Murendo et al., 2018; Ayenew et al., 2018; Snapp and Fisher, 2015; Kissoly et al., 2018), suggesting the important role that income plays on households' nutritional outcomes.

Livestock Holdings: Livestock holding contributes positively to dietary diversity. Keeping livestock influences the dietary diversity of farm households in Nigeria. Mekuria et al., (2019) found a positive significant result between the production of livestock and household dietary intake, and food calories in the highlands of Ethiopia. Also, Mango et al., (2018) found a positive relationship between livestock production and food consumption score in central Malawi, and Aweke et al., (2020), found livestock production to be positively related to smallholders' food consumption in East Hararghe, Ethiopia.

Non-Farm Livelihood Participation: Non-Farm Livelihood Participation exerts a positive influence on-farm households' nutritional outcome. This

implies that farm households with income portfolios derived from non-farm activities exhibited high nutritional outcomes compared to their counterparts whose only source of livelihood is farming. This result emphasised the importance of non-farm livelihood activities as an important driver of nutritional outcomes of farm households in Nigeria.

Dependency Ratio: A positive relationship exists between dependency ratio and households' dietary diversity implying that farm households with a high number of under-five year children have greater nutritional outcomes than their counterparts.

Table 4: Effects of Households' Farm Production Diversity on their Nutritional Outcomes

	Food Calorie		Real value of food		Dietary Diversity	
Variable	**Coefficient**	**t-value**	**Coefficient**	**t-value**	**Coefficient**	**t-value**
Production Diversity	0.01**	2.01	0.02***	3.14	0.01***	4.43
Market Participation	0.18	1.53	0.04	1.11	0.02**	2.12
Season (Post-Harvest)	0.02***	2.14	0.02***	3.33	0.01**	2.23
Location (Rural)	0.02*	1.91	0.11	1.32	-1.11***	-3.82
Sex (Male)	0.24	1.01	-0.09***	-4.12	-0.14***	-2.62
Marital status (Married)	-0.02	-1.12	0.02	1.24	0.33	0.43
Age	-0.12	-1.42	0.02*	1.83	-0.03***	-2.93
Household Size	-0.13***	-2.68	-1.04**	-2.12	-0.04***	-4.18
Household head with formal education	0.04***	3.76	0.01	0.64	0.16**	2.17
Low Income household	-0.23**	-2.04	-0.16***	-3.77	-0.03***	-3.32
Livestock holding (dummy)	0.04*	1.96	0.01**	2.11	1.04**	2.16
Non-Farm Participation (dummy)	0.22**	2.18	0.23**	2.22	0.25***	2.84
Dependency ratio (households with under five year children)	1.26	1.73	0.44	1.17	0.24***	2.24
Zone (North central dummy)	-0.01**	2.12	0.01	1.33	0.03	1.44
Zone (North west dummy)	0.11	1.16	0.02	1.24	0.11	0.36
Zone (South west dummy)	0.47*	1.99	-0.14**	2.02	-0.02**	-2.18
Zone (South east dummy)	0.13	1.18	0.02	1.42	0.01	1.13
Zone (South south dummy)	0.03**	2.16	0.33	1.33	0.26***	2.98
Constant	1.36***	3.85	1.12***	4.82	1.18***	4.94
Sigma_u	0.43		0.71		0.52	
Sigma_e	2.12		2.67		2.04	
Rho	0.04		0.06		0.04	

Note: ***, **, *Implies that the estimated parameters are significant at 1, 5, & 10% respectively.

4. Conclusion and Recommendation

Nutritional outcomes of farm households are linked with the performance of agricultural activities, not because food is from agriculture but because many malnourished people reside in rural areas where agricultural activities are domiciled. This study examined how farm production diversity influences the nutritional outcomes of farm households in Nigeria. The results indicated that consumption patterns of food calories and dietary intake were higher in the post-harvest season than in post-planting seasons. The decline in the nutritional outcomes of farm households in the off-season indicated the possible presence of seasonality of hunger and malnutrition. Also, farm households' production diversification and market integration contribute to their nutritional outcomes, particularly in post-harvest seasons. This study concluded that increased households' farm production diversity is needed for their improved nutritional outcomes. Therefore, there is a need for seasonal policy intervention that will promote the production of diverse crop and livestock species in Nigeria to achieve improved nutritional outcomes.

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Part Two
Peace and Conflict Studies

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Socio-economic Impact of Academic Staff Union of Universities' Incessant Strikes on Host Communities: Focus on Anyigba Community of Kogi State, Nigeria.

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Abstract. Industrial harmony in Nigeria is unstable and unpredictable. At any given time, a union or some unions will embark on industrial actions ranging from lockout, work-to- rule, picketing, protest to strikes. Since 2011, a year hardly passed without the Academic Staff Union of Universities () being on strike. Scholars have found and argued that these strike actions have different debilitating consequences. This study examined the impact of ASUU's strike actions on the socio-economic milieu of Anyigba community of Kogi State. The main objective of the study was to ascertain the educational, religious, security, peace and commercial impact of ASUU's strikes, five research questions were drawn: What are the consequences of ASUU's strike actions on religion and morality? In which ways do the strikes pose threat to security? In which ways do the strikes retard the economy of the host community? How do the strikes affect educational advancement? How do the strikes disrupt town and gown relations? The paper was anchored on system theory. Applying survey method of research, a set of questionnaire was administered on 200 respondents. Twenty other members of Anyigba town were also interviewed. Method of data analysis was descriptive statistics presented in themes using Google analyzed participants' responses into pie-charts, histograms and Bar-charts. Findings show that ASUU's strike actions negatively impacted on morality, threatened security and retarded the economy. Based on the findings, the paper recommends government's implementation of agreements, adequate funding and entrenchment of university autonomy.

Keywords: industrial harmony, strike, university, community, morality

1. Introduction

Industrial harmony in Nigeria, to say the least, is unstable. Today, there may be understanding between the employer and employee, tomorrow there is disagreement over unresolved working conditions or government policies. It has been an endless struggle of blame-game and sensational media reportage. Strikes have become so incessant in Nigeria public and private sectors to the extent that a week hardly passes without a declaration of strike action by one union or the other. This has become an issue of concern to scholarship because industrial peace or conflict, as the case may be, has its toll on social, political and economic activities of a nation.

The university system in Nigeria is not left out of the incessant strikes as different industrial unions have been disrupting academic calendars in the last two decades. These strikes have brought immeasurable regression to the education sector and the nation at large (Ukwu, 2013). The unions often predicate these strikes on insensitivity of the political class to their plights, bad conditions of service and unfavourable national policies.

ASUU's strike has been incessant since inception of civil rule in 1999. In 1999 and 2001 ASUU embarked on a nationwide strike that lasted several months. ASUU went on another strike on December 29, 2002 for two months after Obasanjo administration's failure to implement the agreement it reached with the union. Yet, in 2003, ASUU engaged on another industrial action over the non-implementation of previous agreements related to poor funding of universities and disparity in salary and retirement age of teachers. There was another strike in 2005 that lasted two weeks in 2005.

ASUU declared a three-day warning strike in 2006 which eventuallt lasted one week. Another strike

occurred on March 26, 2007 followed by a one week strike in 2008 in demand of an improved salary scheme and reinstatement of the 49 lecturers dismissed in 2001 from the University of Ilorin.

In 2009, ASUU's strike lasted four months which necessitated the much touted 2009 agreement with government. Also in 2010, there was another indefinite strike that lasted over five months spreading into January, 2011. Academic activities nationwide came into a halt in December 2011 due to another strike action. The strike lasted 59 days and was called off in 2012. The government's failure to review the retirement age for professors from 65 to 70 years; approve funding to revitalise the university system; increase the budgetary allocations to the education sector by 15-20 per cent were the major contentious issues of 2013 industrial action. Between August 17 and September 15, 2017, ASUU was again on an indefinite strike over unresolved and contentious issues. In 2018, ASUU also embarked on an indefinite strike due to the fact that government failed to fully implement all outstanding issues as contained in the memorandum of agreement (MOA) of 2017 and concludes the renegotiation of the 2009 agreement (Akure, 2018). The discounted action ended in February 2019.

The longest strike action in the last few years came in 2020 when ASUU went on a nine-month strike. ASUU on Monday, November 17th, 2021, also announced its plan to embark on another strike in three weeks if the federal government continued to renege on the 2020 agreement with it. Due to failure of government to accede to ASUU's demands itembarked on a roll-over strike on February 14, 2021.

KSU's ASUU chapter participated in all the national strikes called by ASUU until the Kogi State government sacked some of the academic staffers and proscribed ASUU in KSU about 4 years ago due to internal or local strike they embarked upon for over three months due to non-payment of salaries and allowances. However, ASUU earlier suspended the KSU chapter because some lecturers went ahead to call off the national strike against ASUU directives in 2016.

ASUU's strike is a form of industrial action which affects the employers, employee and the general populace. Fajana (2006) opined that industrial conflict leads to loss of production, output, inability to meet the demands of customers and tend to rupture good relationship between service providers and users. According to Ike (as cited in Adeleke, 2016, para. 1), a university fulfills one major function; it is a knowledge and value provider. Basically, a university has a responsibility to its learners and community; failure to follow through on this responsibility means failure. In summary, conflict in Nigerian industries has become a repeated phenomenon that has bedeviled the public sector and impedes the country's development (Idris, 2021).

Some studies have examined the impact of and ASUU's strikes. As Ogbette et al. (2017) averred that ASUU's strikes havenegative effect on enactment of universities national curriculum. Bello (as cited by Ogbette et al., 2017) stated that, for the period of ASUU's strike action, universities programs remained partially not fully executed. These situations lead students to seek to acquire their degree by any means necessary. According to Kazeem and Ige (as cited in Edinyang&Ubi, 2013), most of the time students are not given a chance to make up for lost time before examinations are conducted. Generally, strike actions lead to economic instability.

While many scholars have investigated different aspects of ASUU's strikes including its social ills and its effects on the academic performances of students in various universities in Nigeria, this research specifically explored the extent to which ASUU's strikes affect the different facets of students' and community members' lives in Kogi State University (KSU) and the university town of Anyigba. The main objective of the study is to investigate religious, commercial, security, educational and peace outcomes of ASUU's strike actions. In order to achieve the objective of the study, five research questions were drawn: What are the consequences of ASUU's strike actions on religion and morality? In which ways do the strikes pose threat to security? In which ways do the strikes retard the economy of host communities? How do the strikes affect educational advancement? How do the strikes disrupt town and gown relations?

Following this introduction, the rest of the paper is organized as follows; Section II is literature review which presents the conceptual clarification, empirical review and theoretical framework. Section III presents the methodology, and Section IV focuses on results and analysis. Section V concludes the study and describes the policy implications.

2. Literature Review

2.1 Conceptual Clarification

Urbanisation, university, ASUU, industrial conflict and strike will be explained in this segment as they are conceptualized for this study. The movement of people from rural areas resulting in formation of cities and towns with modern facilities is technically referred to as urbanisation. Kuddus, Tynan & McBryde (2020) defined urbanisation as the mass movement of populations from rural to urban settings and the consequent physical changes to physical and demographic settings. Big urban centres usually emerge because of available opportunities for jobs and better living conditions due to good plastered roads, electricity, and pipe borne water, schools and hospitals. These infrastructures are called pull factors that attract people to urban centres. It is estimated that more than half the world's population (4.2 billion people) now live in urban area and by 2041; this figure will increase to 6 billion people (United Nations, 2019).

Rural-urban migration to administrative centre is very common in the developing countries in view of lack of infrastructures, industries, health facilities and higher institutions in rural areas. In other to develop new urban centres, government may embark on deliberate policy of creating new urban centres to decongest the already over-populated ones. Localization of industries and government institutions has been a way of developing new urban centres or succinctly put urbanising rural areas.

A university is a citadel of knowledge preparing students for higher training in all facets of human understanding in an attempt at understanding the cosmos and exploit for the common good of humanity. Its major role is to set standard of teaching, learning, studies and practice in all fields of human endeavour. A university is an institution mainly established for teaching, research and community service in all fields of human endeavour consisting of a community of scholars or persons that bringsmen and women to a high level of intellectual development in the arts and science, and inthe traditional professional disciplines, and promotes higher level research (Alemu,2018). It is part of academic organization called higher institution.

Thus a university is a scholarly organization engaged in the advancement of knowledge acquisition and experimentation through embodiment of universal knowledge and highly skilled human power for different professions, skills and careers. It is a place where ideas are diffused for proper utilization for the benefit of the individual, community and the society in general.

In view of the need to use university education as the brain-box for catalyzing development, Nigerian government has continued to prioritize its establishment and funding. Nigeria at present has 203 approved universities registered and approved by the National Universities Commission consisting of 49 federal universities, 55 state universities and 99 private universities (PM News, 2021). With additional approval of 12 more private universities in April, 2022 by the Federal Government, Nigeria now has 215 consisting of 111 private ones. Despite the preponderance of private universities, Owan, Ameh and Ubabudu (2021) opined that figures of students who will apply for admission into federal and state universities will continue to rise because these government funded universities have better capacities in terms of funding and staffing as well as being generally cheaper.

Academic Staff Union of Universities (ASUU) is a trade union whose activities are lawful and consistent with the spirit and practice of trade unionism as provided by the laws of the land (Chigozie, 2017). The Academic Staff Union of Universities (ASUU) began as an Association of University Teachers (AUT) in 1965. It was registered in 1978 as Academic Staff Union of Universities (ASUU). ASUU can be regarded as a trade union. In this light, a trade union is an association of workers or organizations formed together by labour, workers or employees to achieve their demands for better conditions at their work atmosphere (Pitan and Akindele, 2016). ASUU has branches in many federal and state owned universities, and its principal objectives to organise all academic staff members to ensure regulated and robust relations between academic staff and employers and among members. It seeks to protect the interests and welfare of members and serve as interface between lecturers and governments who are owners of universities. As at today, private university lecturers are not members of ASUU.

Otite, (2001) conceptualized conflict a tool for resolving problems originating from opposing interests as the basis for continuity of society and development. Industrial conflict is a form of trade dispute between workers and managers of an organisation that produces or renders services aimed at fostering better understanding. Otobo, D. (2005) viewed industrial conflict as a phenomenon for expressing dissatisfaction over unresolved

difference(s) in a work place between employer and employee which disrupts peace in an organisation. Industrial conflict may culminate in demonstration, protest, lockout, work-to-rule and strike. Industrial conflict is said to arise when there is deviation from the expectation relating to the terms and conditions of work especially when it affects the employees (Alkerman&Torenvlied, 2017). Abuza (2016) opines that industrial conflict can be caused when there are absenteeism, output restriction, job changing negligence, accident at work, break of contract, and unfavourable policies. A total absence of industrial conflict in an organization is unattainable or where it presumably appears to be so, workplace becomes boring and may portend a strong indication of suppression of workers' rights. As Eyo & Francis (2017) put it, conflict is a necessary aspect of human relations. In other words, conflict sharpens relationship whether organizational or inter-personal.

Section 231 of South Africa's Labour Relations Act, 1995 (amended by the Labour Relations Amendment Act, 2002) defined strike as the partial or complete concerted refusal to work, or the retardation or obstruction of work, by persons who are or have been employed by the same employer or by different employers, for the purpose of remedying a grievance or resolving a dispute in respect of any matter of mutual interest between employer and employee, and every reference to "work" in this definition includes overtime work, whether it is voluntary or compulsory (South African Government (2002). Thus, strike can be defined as refusal to work as a means of expressing of dissatisfaction with terms and conditions of employment especially those pertaining to contractual relationship and collective bargaining practice. It is the after effect of unsettled contentious relationship among business owners and workers. Industrial unions spare-head strike actions as an option in their tool-kit to force their employers to approve demands. Thus, it refers to an industrial conflict arising from incompatible interest of workers and employers in the workplace. Most strikes are caused basically by poor condition of service and failure of employers to act proactively (Oleribe et al, 2016). Employees are not slaves. As a matter of right, employee must enjoy certain benefits that will make them happy to discharge their duties.

2.2 Empirical Review

Strike has been recognized as a legitimate weapon of workers and unions for ventilating their grievances or seeking enforcement of rights. Giame, Awhefeada and Edu, (2020) averred that strike is not a fundamental right because it is controlled by statues like the Trade Disputes Acts or the Trade Union Acts of different countries. Thus, the general right to a strike is usually recognised by defining the circumstances under which a strike is to be regarded as illegal. That is why the right to strike is not absolute. It must be in pursuit of unresolved industrial matter. Section 4 (1) of the trade union act and paragraph of the first schedule of the trade union act, implicitly recognizes the right to strike in Nigeria.

On the impact of ASUU's strikes, Edinyang and Ubi (2013) found disruption of teaching and learning and inability to effectively carry out curriculum of the syllabus on time before the examination is administered. They further concluded that any interruption in academic schedules as a result of strike action affects the quality and quantity of students' learning. Thus, ASUU'S strike may also account for the dwindling quality of graduates from Nigerian universities or half-baked products in view of the fact that they are rushed through course content after calling off the strike in order to begin a new semester or session. Pitan and Akindele (2016) found that there is a link between the university management's estimation of workforce and the disposition of lecturers to work, which is largely unfavourable.

Though studies have shown that ASUU's strike action impacted the quality of education in Universities, it is agreed that relationship between job satisfaction, need satisfaction, motivation and job performance cannot be wished away (Ogbette et. al., 2017). Nwachukwu (2007) posited that physiological needs, security needs, social needs, self-esteem needs and self-actualization needs are significant predictors of the job performance of Nigerian teachers.

The incessant ASUU's industrial actions have frustrated, delayed their graduation, increased, caused disenchantment among lecturers, eroded student-teacher mutual relations and created a festering of examination malpractice. Disruption of academic calendar creates disillusionment, bleak future hope and prolonged life expectation. On the order hand, ASUU's strikes have brought some benefits to educational development in higher institutions in Nigeria. Chigozie (2017) averred that the relatively improved wage structure, funding by Tertiary Education Trust Fund (TETFund) and the Needs Assessment Fund campaigned for in 2013 has brought about new structures, teaching and learning facilities and of course training of academic staff of Nigerian Universities.

Kogi State University, located at Anyigba, is a state-owned university. It was established in 1999 by Prince AbubakarAudu, the former governor of the state. It was renamed Prince AbubakarAudu University (PAAU) in 2002 and later revised back to Kogi State University in 2003 (KSU). As earlier stated in this piece, localization of government institutions helps in creating new urban centre. The establishment of KSU in Anyigba resulted in increased population, improved infrastructure and popularity and patronage by people in and outside the state. New businesses also sprang up to cater for increased population.

While much has been researched about impact of ASUU's strikes on a general basis, this study was conducted to examine how KSU ASUU's strikes affected students, stakeholders and the university town of Anyigba focusing on the religious, security, educational, economic, commercial and peace impact of ASUU's strike actions.

2.3 Theoretical Framework

A system is defined as a set of interrelated elements whereby each of a system's elements is connected to every other element, directly or indirectly (Ackoff, 1971, p. 662). Systems theory emanates from the study and understanding of elements that function within cohesive groups of interrelated, interdependent parts. Thus, a system is viewed as interactions or relationships between a system and its environment, which includes entities that receive or use its outputs (Alter, 2018). Space, time and environment of a system are determined by its structure and purpose that culminates in its functioning. Two important features of system theory that are crucial to this study are that a system is more than the sum of its parts if it expresses synergy or emergent behavior and system responses to internal and external conditions that change over time (Steven, 2018).

In this study we see system theory as the understanding of the complexity existing in the arrangement of interrelated elements, including individuals and their beliefs, attitudes, behaviours as they relate to a whole social aggregate. Changes occurring to one part of a system affect other parts or the whole system. The growth and adaptability of a system is dependent on its sensitivity to environmental vagaries (UIA, 2020). In a situation whereby a system supports other systems to prevent failure they are regarded as sub-system. For example, educational sector is a subsystem of a social entity called a community. Thus, systems theory examines a system's holistic dynamics, constraints, conditions, and principles that sustain a social or biological entity (Beven, 2006).

In the light of the foregoing, a community of people is seen as a system that is affected by its component parts for effective functioning. The university is thus considered as a subsystem of a town or city. The university must therefore strive to build and sustain strong and collaborative partnerships with communities in their academic programmes as a dependable partner (Zimmermanet al.2019). This perspective is also close to structural functionalism theory. Structural functionalism presupposes a "systems" view of the political world whereby the components interrealate for effective functioning of the society. Functional analysis is the premised on social patterns that interrelate to sustain the integration and adaptation of the larger system (Fisher, 2010)

This paper is anchored on systems theory because the theory explains how a part of a system affects all other aspects in different forms. A diseased part of a system brings discomfort to other parts of the entire system. Considering Anyigba community as an organic whole, the dynamics of any part affects the whole community. We attempt in this paper to link the university as a social pattern to explain the social milieu of Anyigba town during ASUU's strikes.

3. Methodology

This study was carried out in Anyigba, a town in Dekina Local Government Area in Kogi State that hosts Kogi State University. It is located between latitudes 7º15'N-7º29'N and longitudes 7º11'E7º32'E (SeeFigure1). Predominantly an agrarian community in the past, Anyigba is fast changing because of the transformation brought by the presence of the State University (Ifatimehin&Ufuah,2006). About a decade ago, population of Anyigba was put at about 71,323 (Tokula & Ejaro, 2012). According to the World Bank (2020) annual population growth rate in Nigeria was put at 2.543% (Trading Economics, 2022). We can thus estimate that Anyingba population has grown by 25.43% in the last ten years, thus, putting the current population at 89,460.

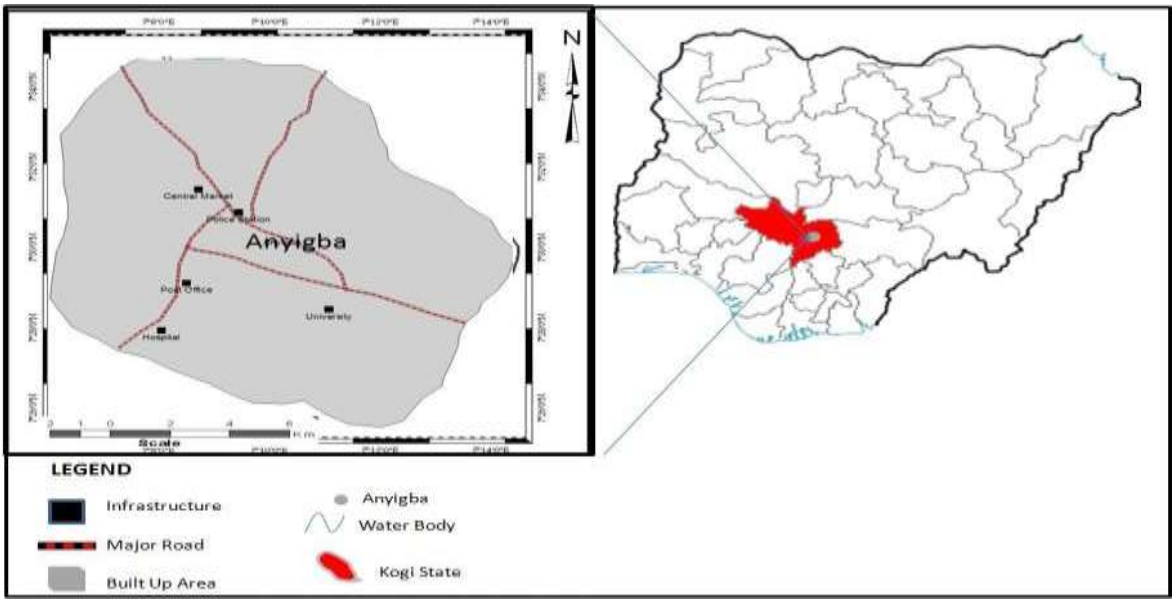


Figure 1. Nigeria showing Anyigba Town in Kogi State

The qualitative research method was applied in this study. In this regard, the research design used was the phenomenology design. In phenomenological studies, the main effort is to disclose a real life occurrence with all its multifaceted and rich portrayals. In this regard, phenomenology consists of robust description of relationships between individuals and situations and identification of the basis and structure of human experiences (Finlay, 2009). Consequently, in the present study, the purpose was to reveal the participants' experiences regarding the reasons why ASUU members are on strike at least once or twice a year, consequences of ASUU's strike action on host communities such as threat to security, economy, education and social development as well as ways of putting an end to ASUU's strike. Randomly selected 200 participants responded to questionnaire designed through Google form and sent to them through emails, WhatsApp and Facebook. In addition, hard copies of questionnaire were physically distributed among KSU community members as well as Anyigba community. Telephone and face-to-face interviews were conducted with 20 lecturers and residents of Anyigba.

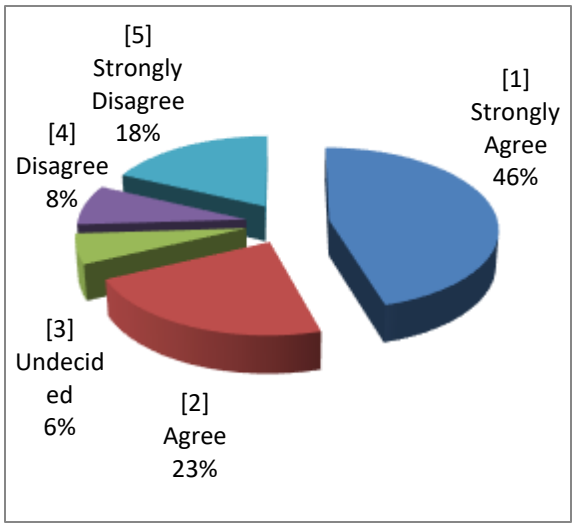
The questionnaire items were generally related to i) participants' individual characteristics; ii) consequences of ASUU's strike action on host communities such as threat to security, economy, education and social development, and iii) ways of putting an end to ASUU's strike.

Method of data analysis was descriptive statistics presented in themes using Google analyzed participants' responses into pie-charts, histograms and Bar-charts. For the analysis of the data, thematic analysis was applied. In this respect, in the process of analysis of the data collected, the patterns were determined and categorized as themes.

4. Findings and Discussion

Impact of ASUU's Strikes on Religious Activities in Anyigba Community

Figures 1-5 show how Churches and Mosques were affected by ASUU strikes.



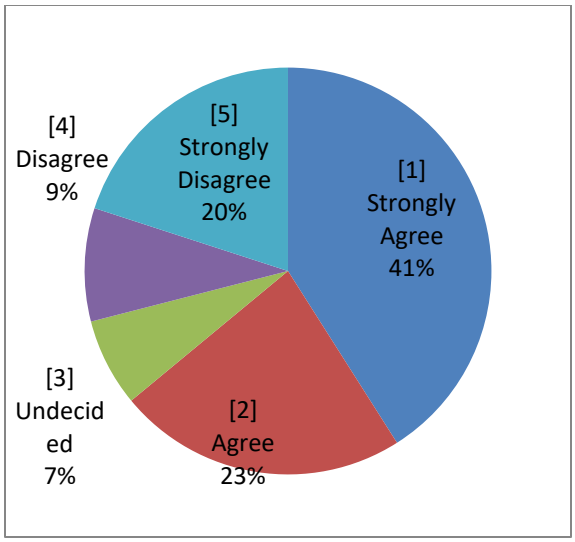
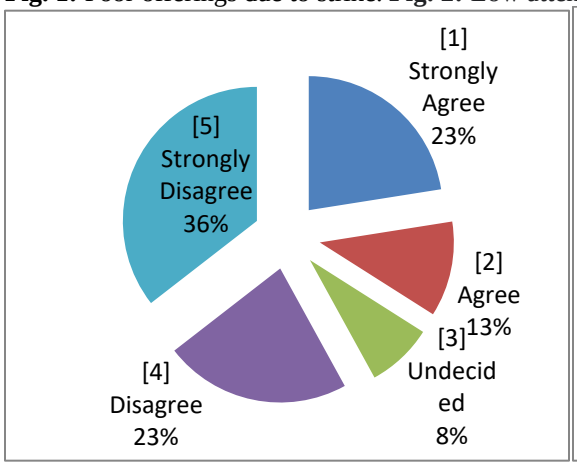


Fig. 1: Poor offerings due to strike. **Fig. 2:** Low attendance of church/mosque



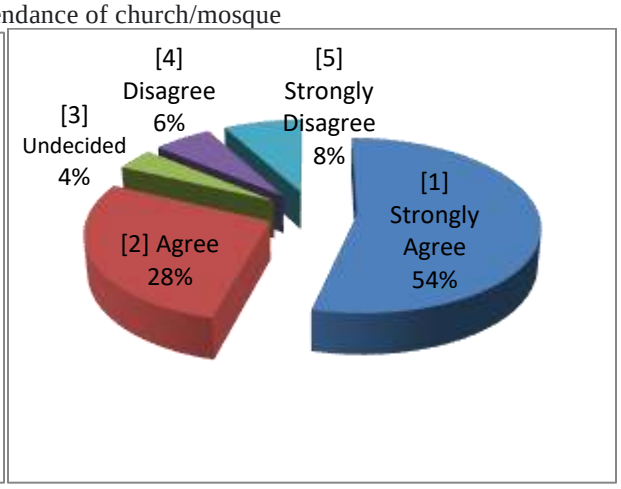


Fig. 3: Loss of relationship and friendship **Fig. 4**: Negative Effect on moral and character

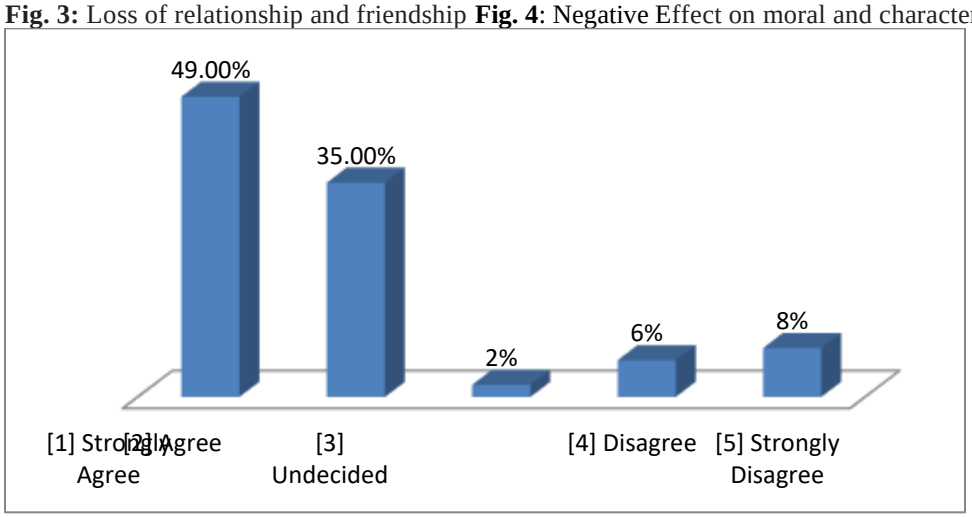


Fig. 5: Church/mosque counseling is affected

Figure 1 revealed that Church pastors, Revered Fathers and Imams suffered very poor collection of offerings, donations and gifts during the strike period. Majority (45%) of the respondents strongly agreed to this statement in addition to 23 percent who also agreed. This shows that about 68 percent of the respondents were in agreement to the statement.

Similarly, figure 2 showed that were low attendance of church/mosque programmes and services during the strike period. Majority of the respondents (41%) strongly agreed to this statement in addition to 23 percent who also agreed. This meant that about 64 percent were in agreement to the statement.

The focus of figure 3 was an examination of the statement that there was loss of relationship and friendship due to absence of Church/Mosque members during the strike period. Majority of the respondents (36%) strongly disagreed to this statement in addition to 23 percent who also disagreed. This showed that about 59 percent of the respondents were in disagreement to the statement.

Figure 4 showed that the training in moral and characters was affected by ASUU's strike. Majority of the respondents (54%) strongly agreed to this statement in addition to 28 percent who also agreed. This revealed that a whopping 82 percent of the respondents were in agreement to the statement. The implication of this finding is that the training in moral and characters was affected by ASUU's strike.

Figure 5 revealed the outcome to the statement, Church/Mosque counseling is affected by ASUU's strike action. Again, majority of the respondents (49%) strongly agreed to this statement while 35 percent agreed. This showed that a massive 84 percent of the respondents were in agreement to the statement. This implied that Church/Mosque counseling was affected by ASUU's strike. Thus, majority of the respondents opined that except for maintenance of friendship ASUU's strikes have negative impact on other religious activities. Interviewees also lent credence to the fact that religious activities in the community were at the lowest ebb during ASUU's strikes.

Impact of ASUU's Strikes on Security in Anyigba Community

Figures 6-9 are results on the threat to security and peace by ASUU's strike action.

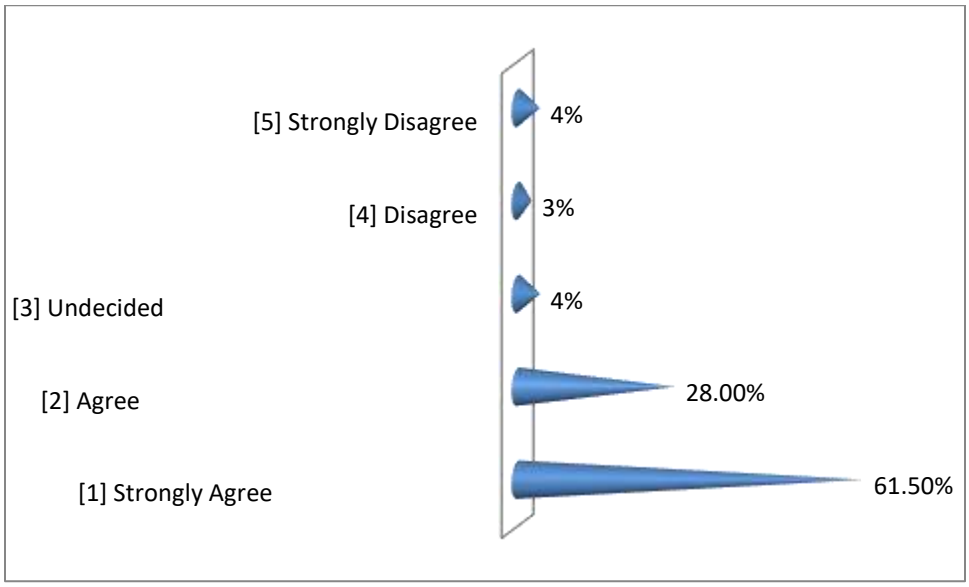


Fig. 6: Absence of students as vigilante members assists criminality

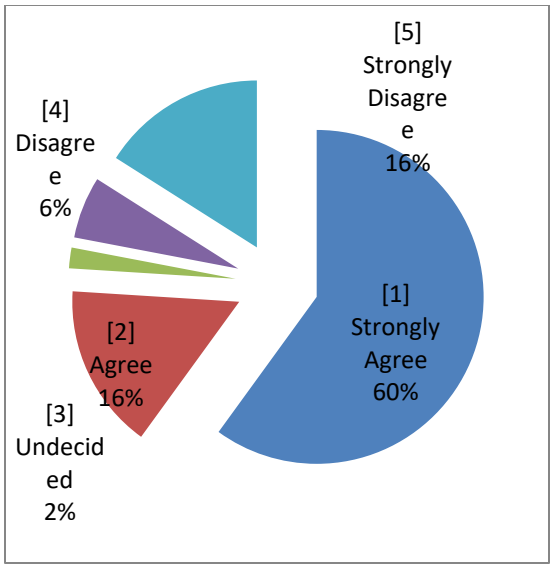


Fig. 7: Yahoo, yahoo increases during strike

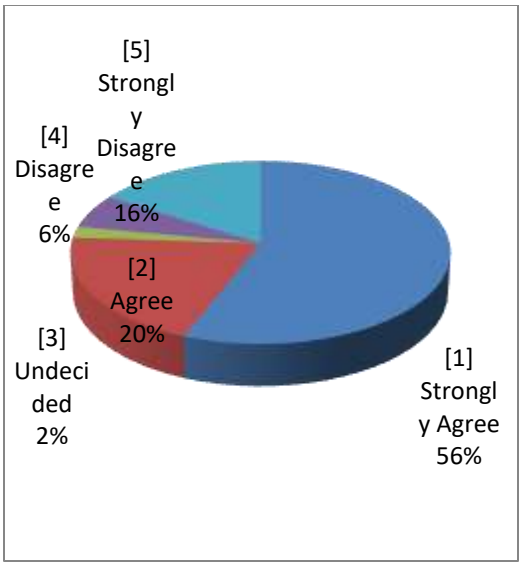


Fig.8: Increase in Unruly/destructive conduct

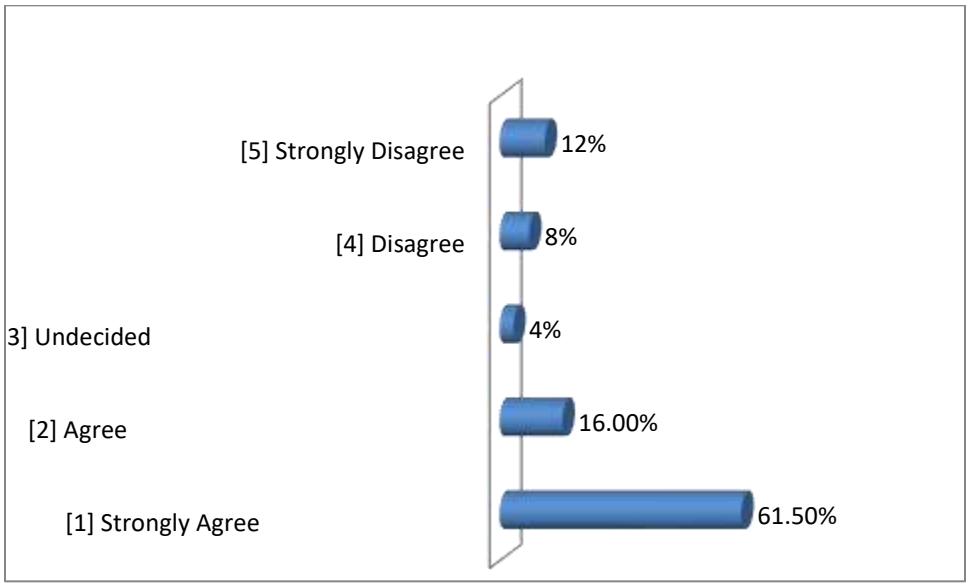


Fig. 9: Student restiveness and demonstrations during strikes promote hooliganisms

The focus of figure 6 is absence of students as vigilante members which aids criminality, while 61.5% of the respondents strongly agreed to this statement 28% also agreed. This shows that a whopping 89.5 percent of the respondents were in agreement to the statement. This implied that ASUU's strike threatened security.

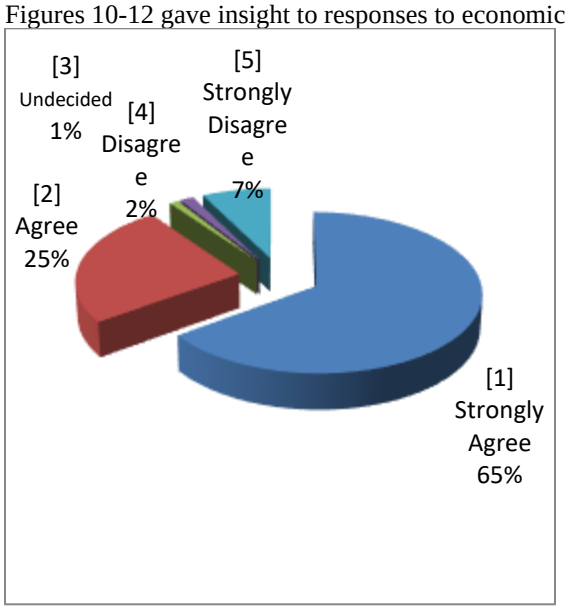
Figure 7 stated that Yahoo, yahoo membership increased during ASUU's strike. Majority of the respondents (60%) strongly agreed to this statement in addition to 16 percent who also agreed. This showed that about 76 percent of the respondents are in agreement to the statement. This implied that Yahoo, yahoo membership increased during ASUU's strike.

Figure 8 presented increase on the unruly and destructive conduct of undergraduates during ASUU's strike. Majority of the respondents (56%) strongly agreed to this statement in addition to 20 percent who also agreed. This showed that about 76 percent of the respondents are in agreement to the statement. The interpretation was that unruly and destructive conduct of undergraduates increased during ASUU's strike.

Figure 9 examined student restiveness and demonstrations in relation to hooliganisms due to ASUU's strike. Majority of the respondents (61.5%) strongly agreed to this statement in addition to 16 percent who also agreed. This showed that about 77.5 percent of the respondents were in agreement to the statement. This implied that student restiveness and demonstrations promoted hooliganisms due to ASUU's strike. The foregoing findings suggest that ASUU'S strikes has the capacity to disrupt peace and contribute to insecurity in the area of study. These findings tally with the findings of Kagbaranen (2012), Edinyang & Ubi (2013) and Ogbette et al. (2017) on negative impact of ASUU's strikes.

Impact of ASUU's Strikes on Economic and Commercial Activities in Anyigba Community

Figures 10-12 gave insight to responses to economic and business impact



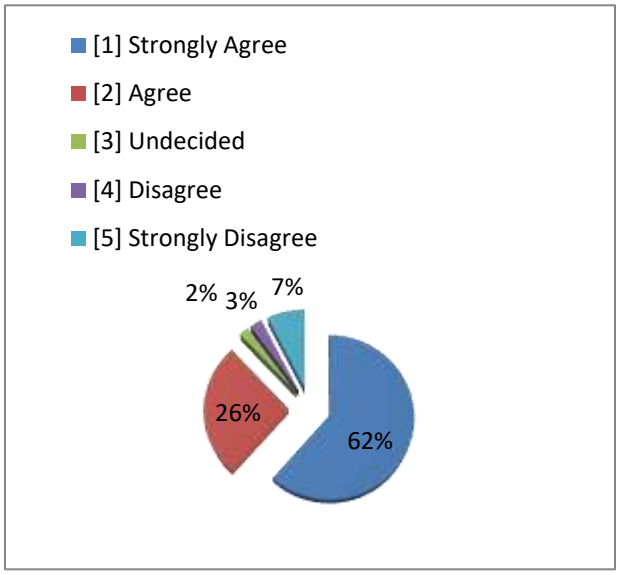


Fig. 10: Low of patronage for business centers on campus **Fig. 11**: Low patronage for business.

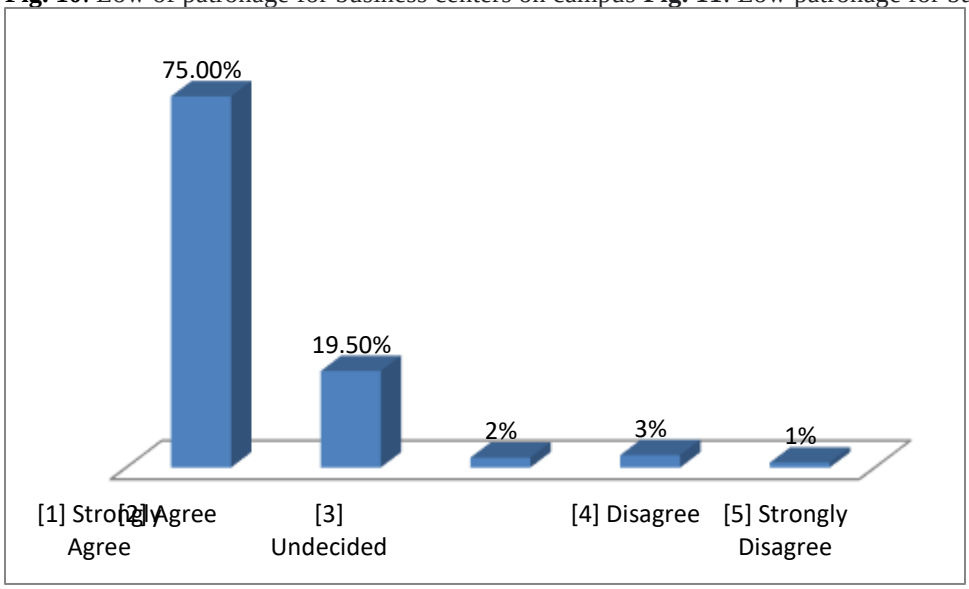


Fig. 12: Rented accommodations and private hostels suffer economic loss

The focus of figure 10 is on campus business center operations suffering low of patronage due to ASUU's strike actions. While 65 percent of the respondents strongly agreed to this statement 25 percent also agreed. This shows that a whopping 90 percent of the respondents are in agreement to the statement. The most noticeably awfully hit were food vendors whose clients were generally students. A young lady, who basically distinguished herself as

Madam Anyigba and runs a café inside the new site said before the strike, she made an average of N13,000 to N15,000 in a day her services in Anyigba adding that anytime there was strike she barely made up to N3,000 per day

Figure 11 stated that host communities' members businesses turnover reduced in during ASUU's strike due to low patronage. Majority of the respondents (61%) strongly agreed to this statement in addition to 26 percent who also agreed. This revealed that about 87 percent of the respondents are in agreement to the statement.
Figure 12 focused onrented accommodations and private hostels suffering economic loss due to ASUU's strike action. While 75 percent of the respondents strongly agreed to this statement 19.5 percent also agreed. This showed that a whopping 94.5 percent (majority) of the respondents were in agreement to the statement.

Impact of ASUU's Strikes on Academic Activities in Anyigba Community

Figures 13-17 were results on the educational impact of the ASUU's strike action.

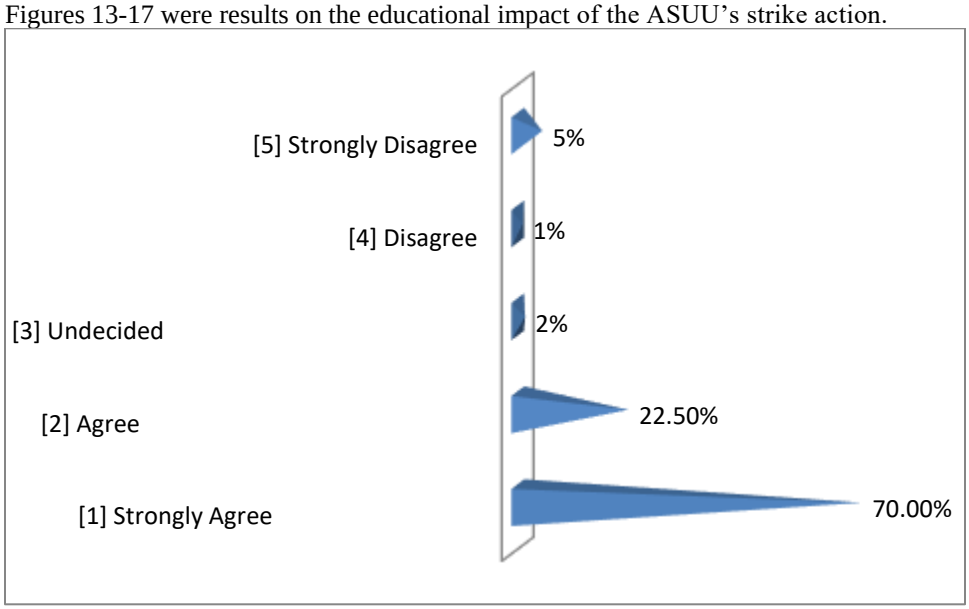


Fig. 13: Disruption of academic calendar and programme leads to production of half-baked graduates

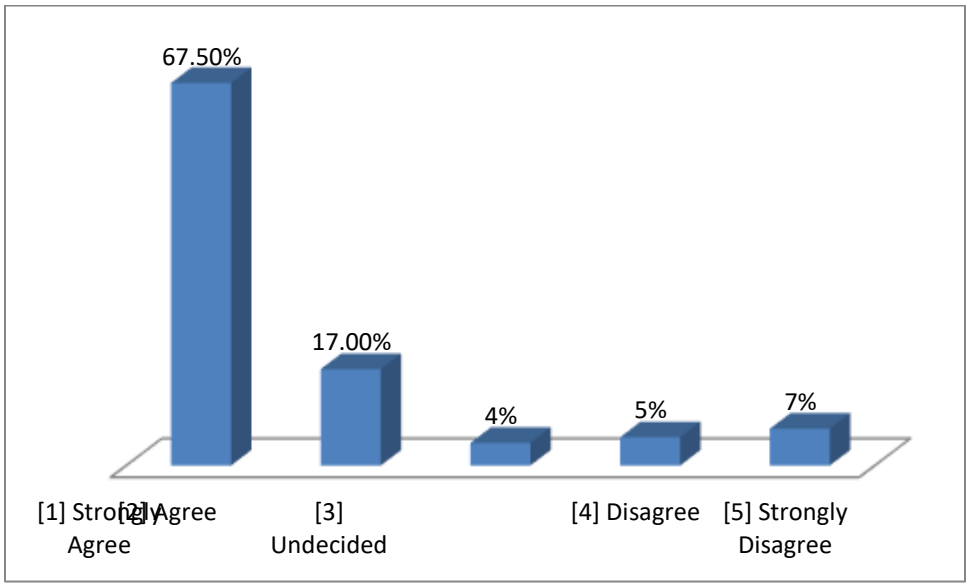


Fig. 14: Erosion of the culture and tradition of the University system

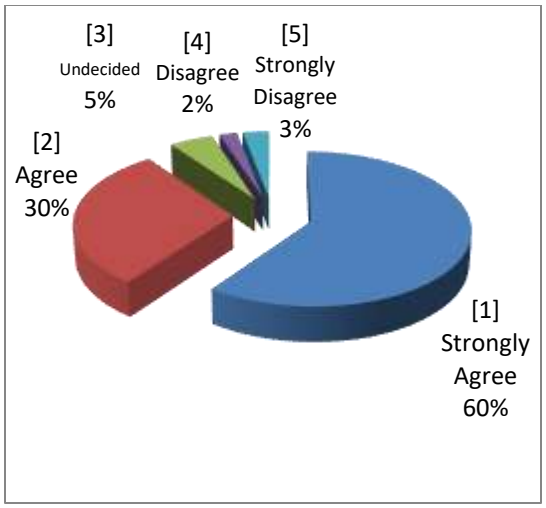


Fig. 15: Strikes dampens morale of lecturers

The focus of figure 13 was on the disruption of academic calendar and programme leading to production of half-baked graduates due to ASUU's strike action. While 70 percent of the respondents strongly agreed to this statement 22.5 percent also agreed.This implied that ASUU's strike resulted in disrupted academic calendar and programme and led to production of half-baked graduates.

Figure 14 stated that ASUU's strike action resulted in erosion of the culture and tradition of the university system. Majority of the respondents (67.5%) strongly agreed to this statement in addition to 17 percent who also agreed. This shows that about 84.5 percent of the respondents are in agreement to the statement. This implied that ASUU's strike action resulted in erosion of the culture and tradition of the university system.

Figure 15 stated that ASUU's strike action dampened morale of lecturers and other university workers and led to poor research activities and productivity. Majority of the respondents (60%) strongly agreed to this statement in addition to 30 percent who also agreed. This showed that about 90 percent of the respondents were in agreement to the statement.

Impact of ASUU's Strikes on Town and Gown Relationship and Peace in Anyigba Community

Figures 16- 19 reported impact on town-gown relationship and peace

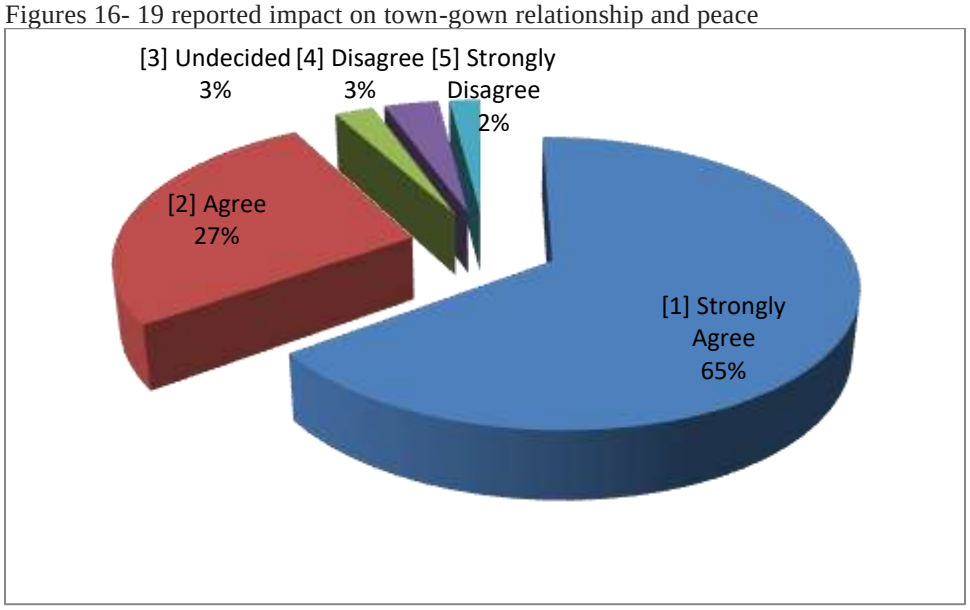
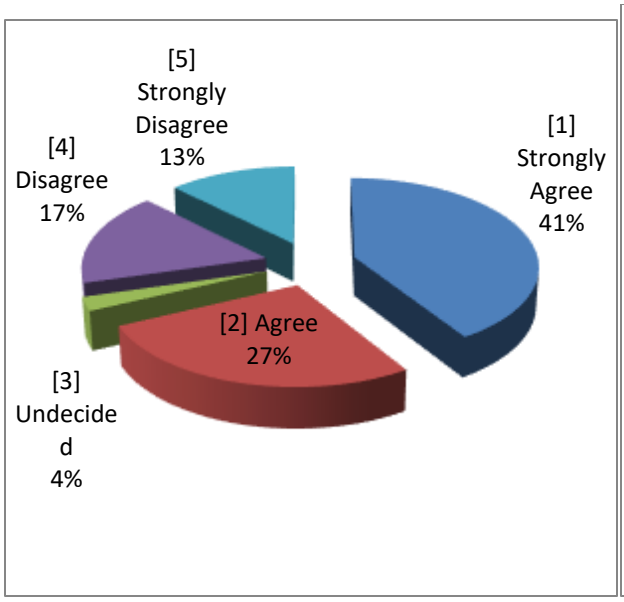


Fig. 16: Town and gown relations disrupted



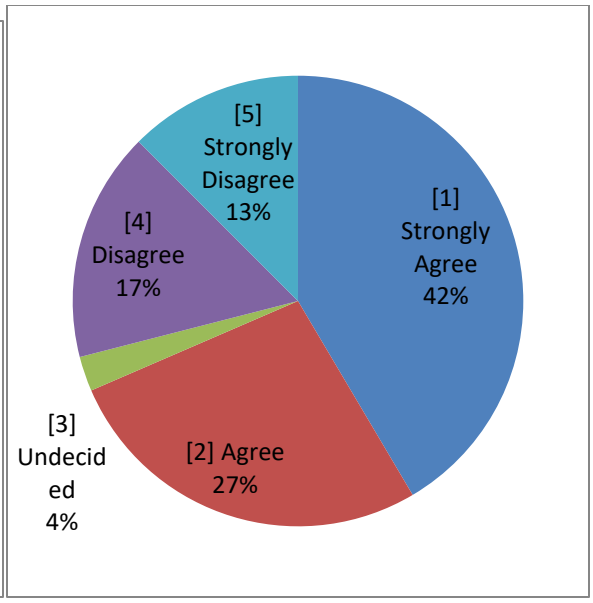


Fig. 17: Hatred for the university community **Fig. 18**: Depreciation in trust and interactions

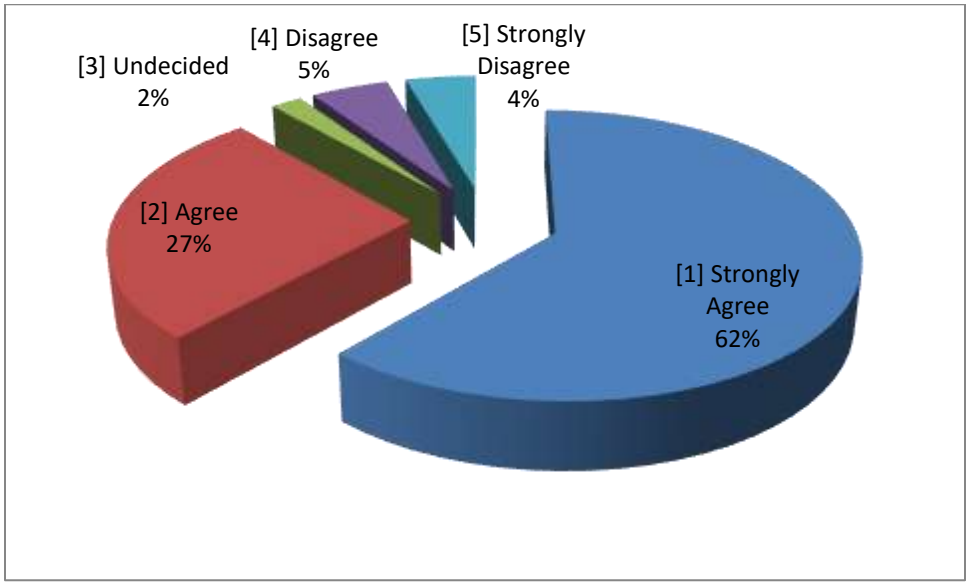


Figure 19: Community exchange and development programmes slowed down

Figure 16 stated that ASUU's disrupted town and gown relationship. Majority of the respondents (65%) strongly agreed to this statement in addition to 27 percent who also agreed. This showed that about 92 percent of the respondents were in agreement to the statement. This implied that ASUU's strike affected town and gown relationship.

Figure 17 deals with feelings of community towards ASUU members. Out of the respondents 41% strongly agreed while 14% agreed that ASUU's strikes led to hatred of members by the community. Some interviewees also felt that ASUU was inconsiderate of the economic situation of the state.

The focus of figure 18 was on the depreciation in trust and interactions between host communities and university community due to ASUU's strike action. While 41 percent of the respondents strongly agreed to this statement 27 percent also agreed. This shows that about68 percent of the respondents are in agreement to the statement. This implied that ASUU's strike resulted in depreciation in trust and interactions between host communities and university communities.

The focus of figure 19 was on the community exchange and development programmes which slowed down due to ASUU's strike action. While 61

percent of the respondents strongly agreed to this statement 27 percent also agreed. This showed that a whopping 88 percent of the respondents are in agreement to the statement. This implied that the community exchange and development programmes slowed down due to ASUU's strike action.

5. Conclusion and Policy Recommendations

This paper examined the socio-economic impact of Academic Staff Union of Universities (ASUU) industrial action on Anyigba as a university town. It finds that the most common reasons why ASUU members are on strike are government's failure to uphold its agreement, lack of adequate funding to infrastructure, and unpaid earned academic allowances. Findings also indicate that ASUU's strike affected collection of offerings, donations and gifts for the clergymen, as well as attendance of church/mosque programmmes and services. However, the strike did not lead to loss of relationship and friendship but the training in moral and characters in addition to counseling were affected. The strike threatened security, increased Yahoo, yahoo membership, escalated unruly and destructive conduct of undergraduates. In addition, it finds that students' restiveness and demonstrations promote hooliganisms. On economic side, host communities' members businesses, rented accommodations and private hostels suffered economic loss.

Strike action affects socio-economic, political, religious and cultural aspects of communities because during the period individuals' activities in the area affected by strike suffer in different ways. Of course, there are social costs which make strikes disagreeable and unsatisfactory. Such costs of strike include hardship, scarcity and insecurity. In a nutshell all strikes have their emotional, economic and social expenses for society.

On academic activities, ASUU's strike resulted in disrupted academic calendar and programme and led to production of half-baked graduates. It also resulted in erosion of the culture and tradition of the university system. However, on poor university management or governance system as a consequence of ASUU's strike action it was dicey which does not allow us to make generalization and conclusion

It also affected town and gown relationship, resulting in hatred against the university community and depreciation in trust and interactions between host communities and university communities. Also, ASUU's strike action slowed down the community exchange and development programmes.

Government should uphold its agreement with ASUU. Adequate funds should be allocated to infrastructure and payment of earned academic and other allowances.

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Vigilantism and its Implications on Nigeria's National Security: A Case Study of Anambra Vigilante Group (A.V.G), 1998-2020

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Abstract. A lot has been written on the security challenges facing Nigeria as a country and the lapses of the Nigeria Police in providing adequate security. These security lapses made some state governors to inaugurate quasi police outfits with different nomenclature to complement the activities of the police; yet, there is a vehement opposition for the establishment of a state owned police in Nigeria. One of the reasons often adduced for this opposition is that some state governors might use the state police to manhandle their oppositions. Extant works so far on this issue have neither adequately investigated the activities of these state and community created police outfits, nor have they comprehensively assessed the security implications of such groups to Nigeria's national security. This study therefore, is an examination of vigilantism in Anambra State of Nigeria, using one of these community created security outfits, the Anambra Vigilante Group (A.V.G).The paper argues that state and community created security groups like the AVG are already performing the anticipated functions of state police. From the findings of the study, there is no gainsaying that quasi police outfits such as AVG, have contributed immensely in ameliorating security challenges in Anambra State in particular and Nigeria at large; however, there are some challenges and security implications that come with the existence of an informal security outfit like the AVG. Using both primary and secondary sources of data generated from field research, the study employs both qualitative and quantitative methods of historical research.

Keywords: Vigilantism, Security, National Security, Anambra Vigilante Group

1. Introduction

Anambra State is located in the South-Eastern part of Nigeria and, since Nigeria's independence in 1960, different security threats have continued to plague the internal security of the country as a nation. Such threats emanate from within the country and endanger its cohesion and wellbeing as nation state. Such threats include kidnapping, rape, murder, theft, armed robbery, *etcetera*. This does not suggest that colonial Nigeria was devoid of violent crises or crimes. There were cases of criminal activities within the colonial entity during colonialism in Nigeria. This was why apart from the colonial police, there were also quasi police outfits established by the colonialists like the tax collectors who also served as enforcers of tax laws and as well, punished tax offenders. Same was the case with court men who as well served as law enforcement agents in colonial Nigeria. Nonetheless, since the emergence of Nigeria as a nation-state and the concomitant establishment of the Nigeria Police Force, these quasi police outfits became outlawed as their activities were taken over by the police.

In today's Nigeria, internal security is within the constitutional purview of the Nigeria Police Force. As O. E Tangban puts it, "no society exists without a mechanism for the maintenance of law and order" and in most cases, that mechanism is principally the Police. However, despite the existence of the police in Nigeria today, insecurity has continued to rise. The inability of the police to manage the insecurity in Nigeria has been linked to a lot of factors. Mention has been made about the difficulty in policing a large landmass of about 924,000 square kilometres populated by over a two hundred nationalities with diverse cultures and background. Other factors have

been listed as lack of manpower, inadequate funding which has birthed inadequate logistics, arms and ammunition, uniform and accoutrement, communication and transportation facilities. Many scholars have also pointed out corruption as the major reason for the inability of the police to fight insecurity in Nigeria. Quoting Afrobarometer report of 2016, Ikoh records that about three quarters (75%) of the Nigeria Police personnel are corrupt and this situation is not getting any better. Although some may argue that there is endemic corruption in all segments of Nigeria, the fact remains that corruption in the police may be seen to be the most unpardonable and objectionable because, it is their occupational responsibility to prevent and work towards eliminating it.

Following the rise in security challenges in the country, different security agencies in the form of quasi police outfits began to re-emerge in different parts of the country as communities started resorting to traditional policing by rational choice; and with time, informal policing received a strong backing and support from the local people. In fact, some of these quasi-police outfits, at some point, became well recognised by the government as they complement the efforts of the Police. Although later plagued and bugged down by a lot of illegalities and shoddy businesses, the initial support given to the *Bakkasi* Boys by the government and the people, showed the efficacy of this security outfit in its early days. Currently, the vigilante group in Anambra state is a very vibrant example of the quasi-police outfits in Nigeria with success stories in the security sector of the state.

Similar success stories have been obtained in other areas where "many urban poor depend on a wide range of informal policing structures (Neighbourhood Watches, Community Guards, and Vigilantes) for the delivery of a measure of safety and security". The case of Kaduna has not been far from impressive since the Kaduna State House of Assembly passed the State Vigilante Service Law on the 6th of June 2016. In areas such as the Calabar Metropolis where vigilantes operate, and Lagos, where the Neighbourhood Crime Watch Operated, there was an observed healthy co-operation between these informal policing structures and the Nigeria Police Force. These quasi police outfits reportedly caught criminals, handed them over to the police, and shared vital security information with the police. In fact, the involvement of the O'odua People's Congress (OPC) in the policing of some parts of Lagos State was said to have improved commercial activity in Oshodi and its environs.

Again, despite the controversies confronting its establishment, the gradual rise of the South-West Security outfit known as *Amotekun* is also another example of the sprouting of such quasi-police outfits in Nigeria. Presently, a similar security outfit is taking shape in the South-South region of Nigeria to provide security for the people of the South-South region. A similar development is seen in to be gradually unfolding in the South-East of Nigeria with an unconventional security outfit called the Eastern Security Network, formed by the controversial Biafran Leader, Mazi Nnamdi Kanu. Also, some like the Civilian Joint Task Force (CJTF) in the North-Eastern part even have the full recognition and backing of the Federal government.

All these are only a consequence of the rise in insecurity in Nigeria which has made some Nigerians to begin to clamour for state police while others oppose it.What one may ask is why some of these quasi police outfits, which almost function as state police, would get the backing of not just the state governments, but also that of the Federal government, yet state owned police remains unrecognised in Nigeria? The answer may be tied to the fact that, while it is true that the activities of these quasi police outfits have contributed in ameliorating security challenges in the country, they also constitute security challenges in their own ways. Employing both primary and secondary sources of data, this study investigates vigilantism in Anambra state by assessing the activities of the Anambra State Vigilante Group (A.V.G); with a view to explicating that despite the opposition against state police in Nigeria, the activities of these quasi-police outfits are tantamount to that of a state police.

1.1 Security in Pre-Colonial Igboland

Prior to the advent of the British colonial administration, the geographical location today referred to as Nigeria was made up of different independent political entities who had both differences and some similarities in their social, political, economic and cultural organisation. In some centralised polities like the Old Oyo, Borno Empire, Sokoto Caliphate, and Benin Kingdom, *etcetera*, power was concentrated in the hands of one or few persons. However, in decentralised polities like the Igbo, Ijaw and Ibibio, power and authority were vested in the community, clan chiefs or title holders.

However, before the emergence of Colonial Police that metamorphosed into the Nigeria Police Force, different communities that made up the entity called Nigeria today also had crimes and criminals. As

rightly observed by Onyeozili and Ebbe, deviance is a ubiquitous phenomenon found in every healthy society of the world; and as such there were customary standards in such societies and negative sanctions for any breach of these standards. Consequently, there were as well, various socio-political organisations that in turn, performed security functions in such societies. Their functions and activities were somehow similar to the activities of the Nigeria Police of today. In Igboland which is the geographical location of this study, security was managed by different groups. Traditionally, Igboland (which Anambra State is part of) lies between the Niger and the Cross River, although there are Igbo people who live on the West of the Niger.

Although security was diversified and handled by different groups, pre-colonial Igbo people made conscious efforts to establish some level of sanity and crime prevention mechanism through the teaching of their children the norms, the do's and the don'ts of the society. Due to high spiritualism in pre-colonial Igboland too, it was believed that negative acts had spiritual implications and so, "members were expected to desist from offences that might incur the displeasure of the living or dead members of the lineage or village". This went a long way in doing half of the security job for them because this inculcated good morals in most individuals of that period.

Physically too, structures were put up to create a sense of security in many Igbo societies. Isichei has observed that Igbo communities which experienced regular raids during the slave period put some structures in place to protect themselves. Some of these structures were moats with removable bridges, high earthen walls and concealed pits filled with stakes for defence. In Awka area which is in present Anambra State, constructed defensive towers of about thirty feet high were found.

For the enforcement of the physical security in pre-colonial Igboland, different groups including the age-grade associations, the masquerade cults, *dibia* fraternities (medicine men), titled elders (*Nze na Ozo* group), *etcetera*, all participated in the enforcement. Among these different groups who were involved in the physical security of pre-colonial Igboland, the young age grade associations were the most prominent in the aspect of enforcement. These young age grade associations were formed byyouthful members between the ages of 18 and 45 years, and for this reason, they performed the most herculean tasks in the society. They functioned as task force, assisted creditors to recover debts, and most importantly, they functioned as constabulary force to enforce law and order formulated by the elders. Sometimes too, they functioned as a pressure group influencing the passing of new laws that helped in the guarding of public morality.

Similarly, the masquerade cult as an enforcer of laws and a pillar of security in pre-colonial Igboland was also propelled by the members of the young age grade associations. These youths in masquerades, enforced laws and secured the society from possible disturbance. Any property in dispute was barricaded with sprouting palm fronds (*omu*) by masquerades and the conflicting parties would never go there again till the case was settled by the council of elders. Masquerades also functioned as watchnights for possible criminals who went around looking for items to steal. Masquerades as well escorted individuals who had committed abominable acts, out of the community where the acts were committed.

The *Nze na Ozo* group (title holders) was another group that contributed immensely to the security of pre-colonial Igboland. However, their role was more of parliamentary because they concentrated on law making, while the enforcement was done by the other groups like the masquerade cult and the age grade associations. The *Nze na Ozo* group was reputed to be truthful and upright, so, their decisions were mostly taken as final. They performed judicial functions too and mitigated in criminal cases like robbery, rape, murder and gave the final verdict. They decided how wrong deeds would be corrected, either by payment of fine, banishment or spiritual cleansing known as *'ikpu alu'*.

Also, in pre-colonial Igboland, the women group known as the *Umuokpu* also contributed their own quota to the security architecture of pre-colonial Igboland. They made sure there was peace between married spouses especially their brothers and their wives. If any issue arose, the *Umuokpu*group invited the spouses and counselled them. This group also made sure all punishment fines are paid even in death. In burial ceremonies, they secured the burial rites and tradition of the people by making sure all traditional regulations are met by the family of the deceased.

Apart from these dimensions to security in pre-colonial Igboland, there was also the spiritual angle to it. As earlier stated, the Igbo in the pre-colonial period were very spiritual and connected almost everything to the divine. In the security sector too, the pre-colonial Igbo people used some spiritual means like oath taking, covenants and laying of curses to ensure security of lives and property. This

was the field of the *dibia* (diviners and medicine men) who guided the people on how best to explore this spiritual option. Some of the deities were invoked by these spiritual specialists to protect lives and property of the people, such that anyone who went against the deities' protection suffered various degrees of blemishes ranging from physical to spiritual torments including mental ailments.

2. Anambra State Vigilante Group (A.V.G)

2.1 Origin

Originally, traditional vigilantism in Igboland has always represented popular struggles for justice and accountability as a reaction to criminality, insecurity, deprivation and general social disorder in the society. Hence, vigilantism in Anambra State was originally not interested in legal guilt but was committed to punishing individuals believed to be guilty of crimes like armed robbers, kidnappers, rapists, burglars or accomplices to these criminals. It was a common belief that these individuals were a common enemy of the society as they damaged the social ties and communal bonds that bound the community together. However, the gross institutional failure engendered by political manipulations and corrupt practices of leaders since the end of the Nigerian Civil War in 1970 engendered a wave of insecurity in Nigeria and paved way for the modern vigilantism in parts of Nigeria including Anambra State of South-Eastern Nigeria. Commenting on the effect of this institutional failure, Anadi argues that "the result was that many communities and villages were left to struggle for basic services as well as physical security, and they recourse to informal systems of law enforcement with a commitment to an anti-crime mandate".

This was why during the military regimes in Nigeria, many communities of Anambra State had some sort of watchnight men who were locally known as 'Ndinche'. These men were village volunteer guards who arrested suspected criminals and handed them over to the village council who first punished them by presenting them to the general public in their shame before handing them over to the police. Although this brand of vigilante guards were mostly unarmed, however, towards the 1980s and 90s, military regimes of those days established anti-crime squads that comprised of the police, the military and well-armed vigilante guards. Hence, the tradition of arming vigilante guards may be said to had been institutionalised by military regimes in Nigeria.

The origin of what may be considered modern vigilantism in Anambra State is traced back to the late 1990s during the time of the Onitsha Traders' Association popularly known as OTA. This group emanated in September 1999 as a result of rising cases of armed robbery in the Onitsha Market area of Anambra state. It was obvious that there was an urgent need for improved security measures, but the police could not help the situation; so, the OTA group stepped up and functioned as a vigilante group that was bent on curbing crime in the Onitsha area of Anambra State. However, the mode of operation of the OTA group was very cruel in its method of justice and law enforcement, especially with the gruesome ways of killing alleged criminals without proper trials in a court of law. The group was accused of torture, unlawful detention, degrading and inhumane treatment of alleged criminals, *etcetera*. In fact, the OTA was said to had summarily executed about 1,500 people between September 1999 and July 2000.

During this golden age of the OTA in Anambra, the *Bakassi* Boys in Aba area of Abia State which started their operation in 1998 were also operating as a vigilante group in Abia State. Soon enough, they secured the backing of the state government and were designated as the Abia State Vigilante Service (AVS). The group was formed by a group of traders to confront criminal gangs who called themselves 'Mafians'. The 'Mafs' (as they were popularly called) grossly disturbed the businesses of these traders and made their lives miserable, such that many traders, buyers and investors left Aba for these criminals. The Abba *Bakassi*, led by Ariaria Market shoe makers in Aba recorded great successes within the shortest possible time. They were able to rid Aba of these criminal gangs between 1998 and 2000. Their methods were also similar to that of OTA in Anambra State but were said to be more gruesome. Amnesty International reported that members of this group tortured 10 suspected criminals to death on the 25th of January 2002.

However, with the popular successes of the Abia State *Bakassi*, many residents in neighbouring Anambra and Imo states began to clamour for an extension of the Aba brand of vigilante (the *Bakassi* Boys) to their states. Then, with the deteriorating efficacy of the OTA in crime fighting in Anambra State, another vigilante group known as the *Bakassi* Boys of Anambra State emerged with the same methods of operation as the variant in Aba, Abia State. Initially, the government of the day refused to officially recognise this group but along the line, a bill sanctioning the group was introduced to the

Anambra State House of Assembly in August 2000. After the governor, Dr Chinwoke Mbadinuju signed this bill on December 6, 2000, it became known as the 'Anambra State Vigilante Service (AVS) Act No. 9, 2000'. With this development, the Anambra *Bakassi* Boys became known as the Anambra Vigilante Service (AVS) and this AVS gained state backing with provisions of office space, vehicles and salaries for its members, all coming from the state government.

However, with such powers, the activities of the *Bakassi* Boys in Anambra (AVS) soon began to go out of control. A human rights organisation in Nigeria known as Civil Liberties Organisation (CLO) recorded that between April 2000 and January 2002, the AVS had in extrajudicial ways, executed over 2000 people in a gruesome manner; while thousands of individuals had received inhumane, cruel and degrading treatment including torture from members of the AVS, the Anambra *Bakassi* Boys. The situation got so bad that the government of the day led by Governor Mbadinuju tried to curtail their excesses by imposing a code of conduct on the members of the AVS, compelling them to hand over all their suspects to the Police for further actions; but all was to no avail as the police said that the AVS had never handed over any of their apprehended suspects to the police.

At some point also, some of the activities of the formerly incorruptible heroes of the AVS, the *Bakassi* Boys indicated that they were gradually becoming corrupt and partisan. The Anambra *Bakassi* group was said to had murdered the former Chairman of Nnewi South Local Government Area, Chief Okonkwo, and the President of Nigeria Bar Association, Onitsha Branch, Mr. Barnabas Igwe, who were vocal critics of Mbadinuju's government at that time. Such compromise in their integrity and neutrality, coupled with other allegations of exploitations grossly smashed the public trust they previously enjoyed, and then exposed the group to possible proscription by the Federal government. Such excesses eventually led to the disbandment of the vigilantes including the Anambra AVS in 2002 by the Federal government; although many state governments including Anambra continued to covertly condone the activities of the Bakassi Boys up to 2003 and even up to 2004/2005. The disbandment came as a bill by President Olusegun Obasanjo on April 10, 2002 and was titled "Prohibition of Certain Association Act".

With the disbandment of the AVS, different communities of Anambra State started operating their various vigilante groups independently, without the backing of the state government. Most of the communities established their vigilante groups using their community generated funds. This development was necessitated by the increase in crime rate in various communities of Anambra state in the early 2000s after the disbandment of the AVS. For the people of Anambra State, insecurity soared within this period such that rape, murder, burglary, armed robbery, theft, kidnapping, reckless shootings and mindless killings became the order of the day. In Abatete, a community in Idemili North Local Government Area (LGA) of Anambra State, criminal youths of different backgrounds organised themselves into groups of about 50 boys each and raided houses, robbed families and raped their female children or relatives. Such a scenario played out in the compound of Mr Gabriel's Compound in Nsukwu Abatete, where 3 females staying with Mr. Gabriel's mother were raped.

The experience in other parts of Nigeria was not entirely different from what was happening in communities of Anambra State. Enugu, Delta, Ebonyi and Edo were also in serious disaster. Lagos Festac Extension, where rich business men of Abatete origin lived, was also under siege of criminality, such that a very notable business mogul was shot and killed in a broad day light by some hoodlums. This helpless state of insecurity made a group of Abatete indigenes in Lagos Festac town, known as the Renaissance Group, to contribute huge sums of money running into millions of Naira to hire their own security. The men hired for this job were spiritually fortified men who hailed from Aguleri, Umuleri and parts of Abia State. Youths of Aguleri and Umuleri had just come out of a long lasting war between the two communities; and as Nwanegbo put it, "There were no food, no cloths and for many, no parents to guide them. They only have sophisticated arms and ammunition supplied, but not used up during the war. For them to eat, cloth and shelter (to an extent), they started using guns they had and still have, to get what they wanted". The effectiveness of this hired security group was immediately felt as they quickly brought down the spate of criminal attacks on the Abatete business men living in Lagos Festac town.

Although these business men had secured their security in the city, security situation at home was still a nightmare to Abatete indigenes living in Abatete, and those in the cities outside Abatete. Since this hired security structure worked for the Renaissance Group in Lagos, they thought it wise to replicate it in their hometown, Abatete. Hence, some

of the men in the security structure of the Renaissance Group in Lagos were detached and detailed to Abatete with some other hired men from other places to set up the Vigilante Group in Abatete. These men were financially funded by the Renaissance Group; the group also provided the security group with enough arms and ammunition and a patrol Hilux van. They were headed by Mr. Emeka Chidozie, popularly known as Emeka Bakassi who was a former member of the disbanded *Bakkasi* group.

As earlier stated, the spate of insecurity was high everywhere; hence, a similar scenario played out in Ogidi, another Idemili community in Anambra State. Kidnapping was so rampant in Ogidi that prominent sons of Ogidi like the Okwuosa brothers became victims of this atrocious crime. Hence, as stated thus, 'Ogidi in particular was under a siege'. In the light of this, Ogidi villages began to set up pockets of vigilante groups managed by these villages until in the 1990s when Ogidi's emergent President General (PG) harmonised the groups into one. Similar was the case of other communities of Anambra State including the neighbouring Uke, Ideani Alor, Eziowelle, Abacha and Umuoji, *etcetera*, who also started operating their independent vigilante groups before the establishment of the state government-backed vigilante group, Anambra Vigilante Group.

The first major attempt to harmonise all the community based vigilante groups was made under the administration of Dr Chris Nwabueze Ngige in 2003, as the governor of Anambra State. He made efforts to organise the various groups under one body and fund them to make them more effective. His efforts were said to had been laudable but the short-lived nature of his tenure in office killed his ambition for the vigilante groups in Anambra State. When the government of Mr. Peter Obi came into power, it took interest in the existence of the groups in 2008; so he donated vehicles to all the 179 communities of Anambra who by then, had a working vigilante group. Governor Obi as well, gave them grants of up to 3 to 5 million for the servicing and maintenance of the vehicles. Then, these various vigilante units of various Anambra communities were still identified with the former name of the *Bakassi* group, the Anambra Vigilante Services (AVS).

Later on, under the government of Governor Willie Obiano, the various vigilante groups in Anambra State was re-organised, harmonised and brought under one body known as the Anambra Vigilante Group. The reason for the choice of the word "Group" in place of the term "Service" in its new nomenclature may not be far from the need to differentiate between the old and the new vigilante in Anambra State. However, many vigilante units and indigenes of Anambra State still use AVG and AVS interchangeably (see inscriptions on the red patrol van in plate 2). For the purpose of the legality of the AVG's existentiality, a legislative and legal backing was secured for the group. A law establishing the Anambra State Group Vigilante and its Supervisory Committees was enacted by the Anambra State House of Assembly in 2014, and this law came into force on the 11th day of February 2014. The law covers the establishment, funding, miscellaneous, functions and powers of the group and its supervisory committees. The law was later amended in 2015 and it came into force on the 13th day of October 2015. With this, the Anambra Vigilante Group (AVG) as a quasi-police outfit in Anambra State was born and vigilantism became a core part of security in Anambra State.

2.2 Structure

The organisation of the AVG is structured to cover the three senatorial zones, the 21 local governments and the 179 communities or towns in Anambra State. From the top, all activities of the AVG are overseen and coordinated by the Anambra State Vigilante Supervisory Committee (SVSC). This committee is made up of experienced experts in diverse fields of security. It is comprised of a Chairman, a Secretary/Legal Adviser who shall be a State Counsel from the Ministry of Justice, and other members. The chairman, appointed by the governor, must be an indigene of Anambra State. Other members of the committee include, the Special Adviser to the Governor on Security, the Chairman of the Anambra State House of Assembly Committee on Security, a representative of the Nigeria Police Force, a representative of State Security Services (SSS), a representative of National Security and Civil Defence Corp (NSCDC), a representative of the Traditional Institution, a representative of the Town Unions, a Community Liaison Officer who shall monitor the activities of the vigilante units to ensure compliance with the law, and any other member appointed by the Governor. The committee also houses 3 Co-ordinators representing the 3 senatorial zones in Anambra State, namely: Anambra North, Anambra South and Anambra Central.

Next on the lower line of duty are the Senior Zonal Supervisors. These Senior Zonal Supervisors also spread to cut across the 3 senatorial zones of Anambra State. For each senatorial zone in Anambra State, there are 2 Senior Zonal Supervisors for the effective discharge of duty by the AVG. The

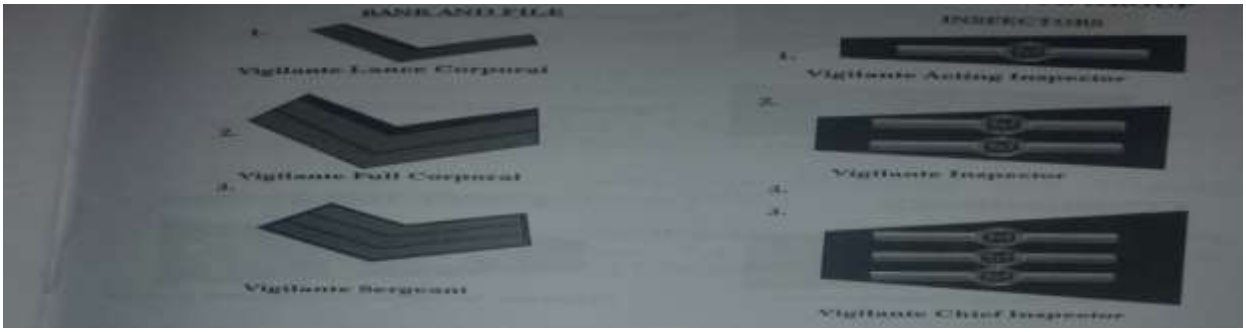
selection of the Senior Zonal Supervisors is very carefully done as all the individuals occupying this position are individuals with cognate experience in the aspect of physical security. All the individuals selected for this position of Senior Zonal Supervisors are retired police officers at the rank of Assistant Commissioner of Police (ACP), Chief Superintendent of Police (CSP), Deputy Superintendent of Police (DSP) and Assistant Superintendent of Police (ASP), *etcetera*.

Directly under the Senior Zonal Supervisors are the Supervisors. There are only three Supervisors representing the three senatorial zones of Anambra State, directly reporting to the six Senior Zonal Supervisors. Directly under the Supervisors are the Town Vigilante Supervisory Committees. Every town or community in Anambra operating a vigilante unit has an established Town Vigilante Supervisory Committee. This committee is made up of a chairman and other members. The chairman of this committee is appointed by the State Vigilante Supervisory Committee, but subject to the Governor's approval. The chairman also, must have been resident in Anambra State for a continuous period of 30 years. Other members of the committee include, the Divisional Police Officer of the area, the President General of the Town Union, the Squad Leader of the Vigilante Unit in the town, and a representative of the town's Traditional Ruler.

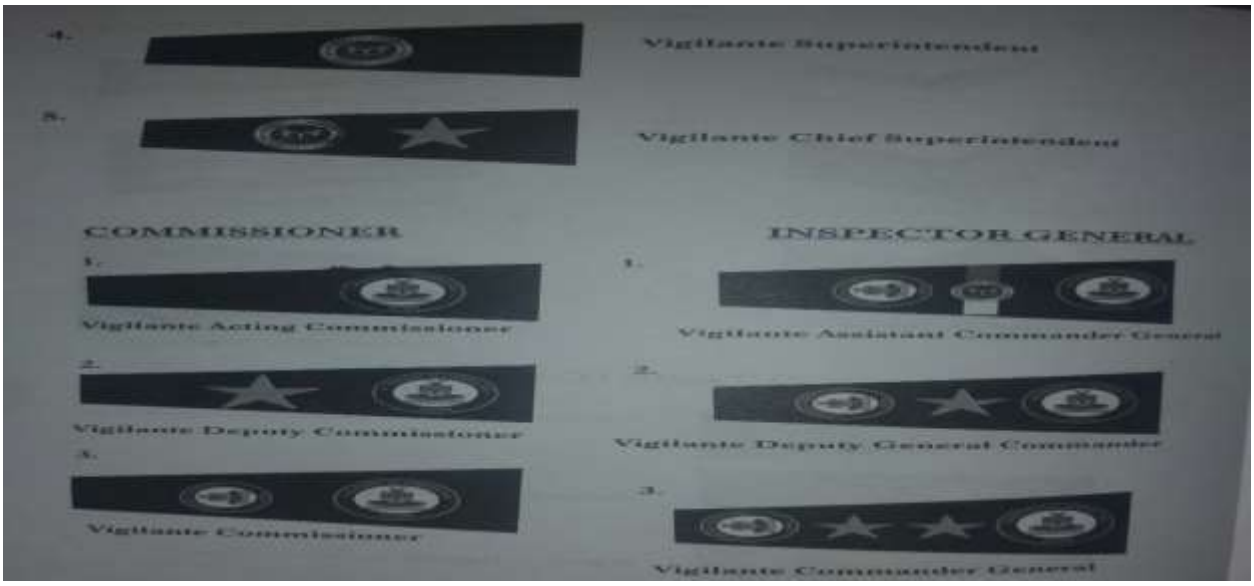
Next, are the vigilante units in various 179 communities or towns of Anambra State. Each unit is headed by a Squad Leader who is either designated as Commander or Chief Security Officer (CSO). The squad leader mostly does not go for field operations unless in critical cases, rather, operations are handle by the Second-in-Command of the Commander, popularly designated as the 2ic, and other operation leaders or zonal leaders, for communities that operate zones.

However, since the AVG is still a work in progress, the State Supervisory Committee has proposed some harmonised ranks for the vigilante units for easy discharge of duties. The ranks are to be divided into the Officer Cadre and Other Ranks Cadre. The Officer Cadre will further be divided into 3, the Superintendent Cadre, the Commissioner Cadre, and the Inspector General Cadre. Under the Superintendent Cadre are the Vigilante Acting Assistant Superintendent, Vigilante Assistant Superintendent, Vigilante Deputy Superintendent, Vigilante Superintendent and the Vigilante Chief Superintendent. Under the Commissioner Cadre are the Vigilante Acting Commissioner, Vigilante Deputy Commissioner and the Vigilante Commissioner. Under the Inspector General Cadre, are the Vigilante Assistant Commander General, Vigilante Deputy General Commander and the Vigilante Commander General. On the other hand, the Other Ranks Cadre is as well, further divided into the Rank and File Cadre and the Inspectors Cadre. Under the Rank and File, are the Vigilante Lance Corporal, Vigilante Full Corporal and the Vigilante Sergeant. Under the Inspectors Cadre are the Vigilante Acting Inspector, Vigilante Inspector and the Vigilante Chief Inspector. Below are pictures showing the proposed ranks and their denoting pips.

Other Ranks Cadre



Officer Cadre



Source: *A Handbook on Anambra Vigilante Group (A.V.G.)*, A Publication of the Anambra Vigilante Group, 55-56.

3. Anambra Vigilante Group and Security in Anambra State

3.1 Modus Operandi

Before the inception of the State-backed AVG, the original idea of creating vigilante units by various towns and communities of Anambra State was to provide grass root security for the lives and property of the local people. This idea then became the driving force of the different modes of operation of the vigilante groups. With vans and motorcycles purchased by the indigenes of their various communities, these vigilante groups embarked mostly on night and daytime patrols to ensure the smooth running of lawful activities at all times within their communities. They made use of local intelligence to smoke out criminals and punished them publicly before everybody. They wielded weapons of various degrees ranging from machetes to guns. They also intervened in times of crisis or misunderstanding between individuals or groups within their communities.

With the inception of the state-backed AVG, the mode of operation of these earlier vigilante groups were adopted and modified. Although the mode of operation of the AVG is still geared towards the protection of lives and property of the local populace, however, it incorporates other security agencies and tilts more towards assisting the Nigeria Police Force. In this regard vigilante groups make available, relevant information on criminals to the police, question and hand over to the police, any person of questionable character; maintain security barricades at night in appropriate places; arrest and hand over to the police within the same day, any person who commits crime.

The vigilante units do not only provide security through patrols, they also serve as security guards in social events like burial ceremonies, weddings, traditional marriage ceremonies, church activities, native festivals, celebration parties, *etcetera*. Although they are paid a token for these services, they also use such avenues to pick up intelligence on individuals with questionable character within the communities. Many criminals in Uke community have been tracked down using information gathered from such social events. This is because, during such events, criminals tend to let their guard down, exposing their circle of friendship, their illegal transactions, crimes committed and in some cases, they even spill plans for future criminal operations.

Consequently, there are some few cases that can be handled by the AVG units. Such cases are low profile cases like theft, burglary, quarrels, fights, drug abuse, *etcetera*. High profile cases like kidnapping, armed robbery, homicide, murder, *etcetera*, are quickly referred to the police for further action. For these low profile crimes, punishments given by the vigilante units are mostly flogging and cutting of grasses as a form of community service. Sometimes, the vigilante unit offers counselling as a solution to some family cases brought before them. For the guards, although there are AVG laid down punishments for offender guards also, punishments of flogging and cutting of grasses are also served by vigilante guards who slightly contravene the laws of the AVG; In some

communities, such punishments are called VIP punishment.

On recruitment and training, recruitment and training of the vigilante security guards are totally handled by the Town Vigilante Supervisory Committee within their communities or towns. In due time, notice of vacancy is put up by this committee and interested candidates submit their application to the committee. After screening and interview are conducted for the applicants, qualified candidates are employed and sent for a one-week training with the police. There, they are basically trained on how to make use of guns (weapons management) and other physical fitness trainings like jogging, weight lifting and push ups, *etcetera*. When they return to their different AVG units, they are again, trained on physical fitness and weapons management. These series of trainings adequately prepare the recruits for the difficult task ahead. A respondent maintains that the training is the secret behind the low incidence of accidental discharge which was the case with the former local vigilantes. The rest of the training after this is on the field of operation where the new recruits are expected to learn from the old guards operating with them.

In the field of operation, SVSC had initially proposed that the vigilante guards should not be allowed to bear arms; but considering the risk of being overwhelmed by criminals if they are unarmed, the SVSC then liaised with the police to allow the vigilante guards bear fire arms. However, the weapons allowed to be used by the vigilante guards are only licenced double-barrelled guns, machetes, and other low profile self-defence weapons like heavy sticks or clubs. Pump action guns are also used by the vigilante guards but only when in joint operation with the police. All the guns used by the vigilante units are registered with the police and are kept in police custody, to be retrieved only when on duty.

Operations of the AVG are also not totally independent of the police and other security agencies. When some people were kidnapped in Anambra in 2019, the Operations Commander, Special Anti-Robbery Squad (OC SARS) of Anambra State came to the Headquarters of the AVG at Awka to seek assistance and collaboration in finding the kidnappers, dealing with them and retrieving the Kidnapped victims. This shows that the police acknowledges the important role of the vigilante guards in the security of Anambra State. Also, an informant has also mentioned how road safety officials and traffic police officials help their operations by clearing the way for the vehicles of the AVG anytime they are on a critical mission. Sometimes, these people are earlier on, contacted on phone to be notified on the ongoing operation so as to clear the roads for easy movement of the AVG convoys. Umeobika in this regard, has as well highlighted that such collaboration with other security agencies other than the police, makes it impossible for criminals of various degrees to hide in villages. In that regard, anyone who breaches laws of other security agencies such as the National Drug Law Enforcement Agency (NDLEA), Economic and Financial Crimes Commission (EFCC), Nigerian Customs, *etcetera*, find it difficult to hide in rural communities of Anambra State because of the activities of the AVG.

3.2 Achievements

Prior to the period of vigilantism in Anambra State, communities of Anambra state such as Abatete, Uke, Umuoji and Ogidi, *etcetera* were said to be under serious security threats as hoodlums ransacked and ran down individuals and groups going about their legitimate businesses.However, since the advent of vigilantism in Anambra State, security, could be said to have reached grass root level to an extent; And with the extension of security to the grass root, one can as well argue that there has been an improvement in the security sector of Anambra State. Information gathered so far point out that the security situation of Anambra communities started positively transforming from the time of the local vigilantes. In fact, one of the informants revealed that it took both fearlessness and spirituality for the local vigilante of Abatete to be effective in those days. In his words, “With courage and spiritual fortification, the vigilante group of that time was able to expel armed robbers and kidnappers from Abatete community.”

Although the improvement in the security sector of Anambra started from the time of the OTA up to the period of the independent vigilante units, there was a dark aspect of vigilante operations in Anambra communities of that time. This was the despicable and extrajudicial killings carried out by these different vigilante groups of the early times. Owing to the level of criminality in Anambra communities of that time, even the new security outfit that emerged in the early 2000s after the AVS, the independent vigilantes still employed brutal force as a form of deterrence to criminals or intended criminals. This could also be said to had been copied from the strategy of the earlier existed OTA and the *Bakassi* Boys of the AVS who were known for their extra judicial killings of alleged criminals during their hey days. Such a gruesome incident played out

in Abatete community during the time of the independent or local vigilantes, when an alleged criminal was publicly beheaded in the middle of Eke-Agu Market. Such an eyesore caused a great pandemonium in the whole market and many of the market women deserted the market immediately in fear. In the view of an informant, this strategy was a good one as it really made a loud statement about the seriousness and the mission of the vigilante group that was brought to Abatete at that time. In his words, 'it was only then that the people really became afraid of the vigilante group in Abatete'.

Bringing a stop to such barbarism was one of the major achievements of the state-backed AVG because, with the advent of the state-backed AVG, efforts were made to re-organise and bring these independent vigilante units into one body and laws brought to define the powers of the vigilante guards who can no longer take human lives at will. This unification and legislation were a major stride worthy of mention because, in recent times, it remains unheard of that a vigilante unit executed an alleged criminal in an extra-judicial manner.

Despite associating its origin to the independent or local vigilantes of the earlier days, the AVG has also been given credit for engendering an improved security situation in different communities of Anambra State since its inception. In Abatete community, vigilante guards had been in different fire fights with criminals. One of such events took place at Nsukwu Abatete where they killed some of the armed robbers who engaged them in a fire fight. When the vigilante guards took down some of them, the rest took to their heels and escaped. This level of grass root security and responsiveness of the AVG units in various communities are the reasons behind the improved security in Anambra state. Owing to their mode of operation which familiarises the vigilante guards with their immediate environment, the AVG is credited for early responses to crimes and for bringing good leads that have aided the police in solving various degrees of crimes in Anambra State. When kidnapping became high in Anambra and the police swept into action to fight this crime, members of the AVG were said to had aided the police in fishing out kidnappers and pointing out their hide-outs (buildings), thereby, easing the job of the police.

Again, the maximum security provided for prominent men of Anambra State by the men of AVG has been a major credit to the AVG. The vigilante guards have proven their worth in different occasions where they protected prominent indigenes of Anambra State and their family members from criminal attacks. In one of the incidents where the vigilante guards featured, the late Igwe of Uke (Sugbudu) was attacked by armed hoodlums believed to be assassins, but the intervention of the AVG men who were in his convoy saved the day. Similar incidents have occurred in Umuoji, Ideani, Ogidi and Abatete where men of the AVG repulsed very deadly attacks targeted at prominent rich indigenes of different Anambra communities. This may be why many prominent men of Anambra State still find Anambra safe to return to after their sojourn in the cities of the world.

Also, security in the homes of most traditional rulers in Anambra State is provided mainly by the men of the AVG. At Ogidi, the Igwe is never left alone without some security details from the men of AVG.Prominent families of Ogidi like the Osakwe family have also benefitted from the existence of the AVG in terms of maximising the use of the AVG security services. In Abatete, many prominent families like the Ntukogu family, the Efobis, the Oranikas, the Metuhs, the Ezeigwes, *etcetera*, from time to time, all make use of the security services of the AVG alike.

Another major success of the AVG in Anambra State is the securing of government back-up. One may say that the effectiveness of the AVG in the security sector of Anambra State earned them the strong backing of the government. According to an informant, having shown their capacity in the aspect of security in the whole of Anambra, when a directive was given by the police to all vigilantes to surrender their arms, the vigilante guards of the AVG were exempted from this exercise because insecurity may skyrocket in Anambra State if such happens in Anambra. As an indication of government's satisfaction in their role in the security situation of Anambra, the government of Anambra State donated patrol vehicles to the SVSC and some of the communities' AVG Units. Many of these vehicles are indigenously manufactured by Innoson Motors (see plates 1 and 2). Such a step does not just improve physical security but encourages indigenous industries, boosts the economy of Anambra state in particular and that of Nigeria in general.

Similarly, the government of Anambra State has also erected a big storey building at Agu Awka, within the state capital, for the smooth running of this security outfit. The building is named 'Lion Building' because the logo of the AVG is the head of a lion with the word "Action" written under it. Prior to this period in 2019, the AVG Headquarters was domiciled in a rented building located in Commissioners' Quarters, behind Anambra State

Government House at Awka. All these are milestone achievements and indications of the effectiveness of this security outfit in the existence of Anambra State. (See plates 3, 4 and 5).

Today, the AVG is like the bedrock of security in Anambra State. This is because, they have enhanced early identification of criminals and timely intervention in crimes; hence, they have worked with the police as mutual resolvers of crime in various communities of Anambra State. Having established in his study that vigilantism ensures accountability, fairness, and justice which all bring societal welfare gains in a societies of Anambra State, Anadi recommends that stakeholders including the government and NGOs should explore the option of improving the lives of the entire citizenry through the establishment of vigilante groups in the country. That is why Onwuegbusi suggests that having solved lots of insecurity problems which has earned them public support, the services of the vigilante group be enhanced and made more effective because it will increase the safety of the community and its residents.

4. Challenges and Security Implications of Vigilantism in Anambra State and Nigeria

In as much as the AVG has achieved a lot in transforming the security architecture of Anambra State, there are as well lots of challenges and limitations that have confronted the group. These challenges on their own, have varying security implications not just on the security of Anambra State, but also on the National Security of Nigeria. One of these challenges is the enactment of crippling laws that have not just limited the powers of the AVG, but to an extent, have stripped the AVG, the supposed power to maintain security in different communities of Anambra State. One of such laws is found under Section 4 (General), subsection 4:1 of the AVG Code of Conduct. Under this section, it is stated that AVG units should not carry out any 'minor' or 'major' operation without police presence.

However, following the numerical strength of the Nigeria Police Force, adequate distribution of police personnel in every location has been a problem since the country has been distributing below the UN standard of police personnel distribution. As at 2006, the UN standard stands at 300 police personnel per 100,000 people. Meanwhile, the totality of the Nigeria Police is about 371,800 grouped into 36 state commands, 12 zones and 7 administrative organs to police over 200 million people living on a landmass of about 923,768km^2 called Nigeria. As at 2016, Anambra State had a projected population of about 5,527,800 and it is obvious that about 10,000 police personnel cannot adequately police this population and an area of about 4,710 km^2.

This weakness has made it impossible for the Nigeria Police to adequately police all parts of Nigeria in general and Anambra in particular. In Anambra State, about 3 or four communities are merged under one divisional headquarters of about 20 men. With such reality on ground, it becomes impossible for there to be a police presence in all operations of the AVG. The implication of this lies in the possibility that men of the AVG may become laws upon themselves and may begin to make drastic security decisions that will not only affect Anambra but the entire country. Since the AVG units of Anambra communities have neglected that law which is unrealisable and, in that regard, have been carrying out operations without the police, it suggests that other binding laws of the AVG have lost their potency.

Again, another legal issue that has formed a limitation to the activities of the AVG is the issue of jurisdiction. There are no clear-cut lines separating crimes to be handled by the police and crimes to be handled by the AVG. In fact, the laws establishing the AVG have categorically stripped off the AVG, any power to handle any crime within their areas of jurisdiction. The Part II of the Law establishing the Anambra State Group Vigilante and its Supervisory Committees and other Matters, captures the functions and powers of the AVG, and it states that the function of the AVG shall be to assist the Nigeria Police and other security agencies. It further states that the function of the AVG is to arrest and hand over to the Police within the same day, anybody who commits crime for investigation. This clearly shows that no provision was made for any level of crime to be handled by the AVG. However, leaders of vigilante units have accorded their various units, the power to handle what they consider low intensity crimes like burglary, civil disobedience, juvenile delinquency, drug abuse, *etcetera*. They have even created punishment for such crimes including shaming of the culprit through public display, flogging and other punishments like cutting of grasses. This aspect is also very important to Nigeria's national security because, it is obvious that the Nigeria Police lacks the capacity to handle all the crimes brought before them. So, handling some of these issues, even though out of their jurisdiction, helps the security situation of Anambra State in particular and Nigeria in general. However, the question of the legality of such roles played by the AVG remains unanswered.

Leaders of AVG units have also cried foul of the treatment of the cases taken to the police to handle. This is because, the Nigeria Police lacks public confidence and support due to wide-spread and endemic corruption, inefficiency and other administrative and operational problems within the police as an institution. AVG leaders have similarly alleged that due to the massive corruption among the personnel of the Nigerian Police Force and the ineffectiveness of the Nigerian judicial system, most of the criminals taken to the police pay their way out; and on regaining their freedom, vigilante guards who arrested and handed them over to the police become their prime targets for elimination. This simply makes a mess of the job and makes it riskier than it should have been. This is why one of the commanders divulged that due to such lapses within the police, that he instructs his boys to inflict injuries of reasonable degree like breaking of the limbs, on criminals before handing them over to the police. In as much as this would not guarantee full safety of the vigilante guards if the criminals secure their freedom; the commander believes it would deter freed criminals from going back to crime.

Again, the AVG structure may be said to be unhealthily too attached to the Nigeria Police. This stems from its leadership which is dominated mostly by retired police officers. The dependency on the police to carry out major and minor operations as well as to detain and punish criminals are also pointers to the over-attachment of the AVG to the Nigeria Police Force. This creates opportunity for fraternisation between the officials of the two structures and the consequent transfer of traits and features from one institution to the other. This is to say that since the Nigeria Police Force suffers massive institutional corruption, hence, this level of mix up between the police and the AVG may breed possible transfer of police corruption to the AVG. Residents have already started complaining of corrupt activities of vigilante guards who collect bribes from citizens to enthrone injustice in various communities. A case was cited by an informant who alleged that the Abatete unit of the AVG collected bribe during the February 2019 House of Representatives Election of Idemili North/South Constituency to favour Hon. Ifeanyi Ibezim's bid over that of Hon.Obinna Chidoka. The informant said that the Abatete AVG helped in arresting and detaining the supporters of Hon. Chidoka in the bushes of Nkwo Agbaja, just to secure victory for Ibezim who is an indigene of Abatete.

This confirms the submissions of an earlier study in Nnewi North LGA of Anambra where findings reveal that vigilante guards easily align themselves with political stalwarts for some monetary gains; so sometimes, they may be used to victimise political opponents. Such scenarios suggest that the fears of Anti-State Police propagators may not be far from the truth if State Police is instituted in Nigeria since influential politicians can bend AVG, a state-owned security outfit to do their wish. However, this does not negate the fact that such practices sprang up from the original police structure of Nigeria which if completely done away with, State Police may work perfectly better than envisaged without corruption and intimidation.

Similarly, as a follow up on the issue of jurisdiction, so much limitations on the legislation of cases even among communities and town unions have affected the zeal and speed of the AVG in intervening in family matters. Many communities have made jurisdiction over issues concerning lands and ownership of landed property, a preserve of the town unions. This has only made the AVG units in most communities to abstain from handling family matters. However, what may be viewed as an irony of the situation is that a great percentage of what metamorphoses into crimes in societies sometimes have its roots in family issues. Fights that have led to loss of lives and deformity of promising youths in Ogidi, Abatete, Umuoji, Uke, *etcetera*, have all been precipitated by family issues. In the course of field work, two scenarios played out before the researchers. On the 24th day of April 2019, a distressed widow ran into the compound of the Abatete AVG to lay complaints of the maltreatment she had been going through in the hands of her brother-in-law and his family because of the property of her late husband. The widow was looking battered showing signs of physical assault which was not different from her complaints. As the grass root security outfit and a supposed last hope of the poor, what the researchers expected of the unit was a swift move to the compound to douse the situation and make sure the widow was safe in that family. However, the response of the Abatete AVG was surprising, the unit head instructed the widow to go and make her complaints at the secretariat of the Abatete Development Union (ADO) where family matters are treated. This was a life and death situation for the widow, or at least, it looked so. Out of disappointment, the widow sat there crying but help was not in view. She knew that the ADO does not have enforcement power and there are lots of issues on the table of the town union that have not been treated.

The second scenario also happened on the 25th day of April in the presence of the researchers at Ogidi where a man in despair, ran into the Ogidi unit headquarters of the AVG. He came with bruises and machete wounds which he claimed were inflicted on him by his neighbour over boundaries in compound and spreading of washed clothes in the compound. The alleged assaulter and his wife not only inflicted wounds on the complainant but were still beating up the wife of the complainant when he ran to the AVG office to make these complaints. What was expected by the researchers was for the vigilante guards to sweep into action by following the complainant to the scene of the assault, to at least, arrest the assaulters and rescue the wife of the complainant.However, the AVG unit still advised the embattled man to go back to the compound and wait till the AVG creates time to come to his aid later in the day. Out of fear of being killed by the assaulters who had already used machete on him, the complainant kept roaming around the premises of the Ogidi AVG. If the wife of the complainant was later killed by the assaulters, it would only be known by posterity. When the researchers enquired about the reason for such neglect of such a serious case, the Ogidi AVG personnel told the researchers that such cases were beyond the purview of the cases they could handle. He maintained that there exists a Peace and Reconciliation Committee within the premises of the AVG which handles such issues.

Another major challenge confronting the AVG is the issue of funding. There is no gainsaying that the funding of the AVG is very poor. Nonetheless, the issue of poor funding has created more problems than solutions in the activities and existence of the AVG. When the former Governor of Anambra State, Dr Chris Ngige took interest in the local vigilantes, he started paying 30, 000 naira each, to all vigilante guards. This amount was reasonable to the guards and motivated them to work assiduously. However, when the government of Peter Obi came, which was later replaced by the government of Dr Willie Obiano, the salary of the vigilante guards fell to 10,000 Naira, each. In fact, the 10,000 naira is only paid to 20 members of the surveillance team of every community. Meanwhile, the patrol team (vigilante guards) are paid 10,000 each by the communities where they are operating. An informant argues that the payment going to the members of the surveillance team is just an aberration because they are not the ones doing the job. He maintains that arms bearers (vigilante guards) should be paid well to avoid mutiny against their high command since they are the ones in the field. Similar issues have been raised by Alemika and Chukwuma who have argued that poor remuneration has been a major factor affecting the performance of the vigilante groups. They maintain good remuneration is a good source of motivation for the guards and has the tendency of keeping them away from engaging in crimes for money. In agreement, Knowland presented a case in Mexico, where a group of vigilantes who helped in fighting kidnapping and drug trafficking, sometimes deviated into drug dealings and even became exporters of drugs due to poor remuneration.

With poor remuneration, the general appearance of the AVG has become poor as vigilante guards even find it difficult to acquire the standard security kits required for the job including the general uniform prescribed by the SVSC (see plate 6). In fact, the patrol vehicles, branded T-shirts and trousers worn by the vigilante guards, their guns and ammunitions, down to their boots are bought and maintained by the guards themselves and sometimes, by wealthy men in the societies. That is why most of the guards put on canvass in the field instead of security boots. Although the canvass is seen to also allow for swift movement of the vigilante guards during pursuit of criminals, unlike security boots which are mostly heavy and do not allow vigilante guards to run properly during a pursuit. In some communities, there exists a welfare office that takes care of the needs of the vigilante guards. Just like in Abatete, its welfare office is called the Security Committee Finance. This committee is made up of barristers, intellectuals and other well-to-do Abatete indigenes who are in high positions in different fields of work. They are all appointed into this committee by the Igwe-In-Council. Yet, what is being paid to the vigilante guards are mere peanuts, the same 10,000 naira. Also, some of the vehicles given to the patrol team most times lack maintenance and end up becoming rickety and immobile (see plate 7). Even the petrol used in the vehicle are sometimes purchased on credit by the patrol team due to lack of fund.

This situation now leaves the AVG units to source for funds from different means. As a fund raising strategy, AVG units provide security in social gatherings like weddings, burial events, wake keeping events, *etcetera*. They also provide security for wealthy men in the society for some token. Most times, they do not get paid more than 10,000 Naira for any of these functions. Consequently, with the high risks involved and the poor remuneration, the job mainly attracts individuals with questionable character. Ironically, these individuals who end up being recruited into the vigilante guards of communities are people who are not supposed to fraternise with criminals. The question then is, how

possible can that be, if they were already criminals before joining the force? This is why Igbokwe argues that even the vigilantes themselves instil knee-bucking fear in the citizens because, such inconsistencies blur the distinction between criminals and the vigilante guards who may become almost indistinguishable. Such loopholes may even create the avenue for vigilante guards to serve as links through which arms go to criminals on hire. In that regard, he submits that vigilante guards degenerate into monsters that end up haunting everyone in the society.

Informants from various communities have told stories of how vigilante guards are seen publicly smoking and drinking, flirting with women of questionable character and fraternising with criminals. In fact, one of the informants reiterated that vigilante guards are the ones teaching Abatete youths how to smoke Indian hemp (*Igboo*) since they smoke it publicly to the sight of everyone in the community. Since such calibre of people are the ones signing up for the job, their lack of formal education and proper long and intensive trainings affect their level of professionalism in the field of operation. Hence, as advanced by Alemika and Chukwuma as well as Olaniyi who have emphasised the danger and consequences of using uneducated and untrained citizens as security agents, this has been exposing villagers to great risks of being brutalised by vigilante guards. This gives credence to the findings of an earlier study in Ekwusigo LGA of Anambra State where respondents have bemoaned lack of education and proper training as one of the major challenges facing the vigilante group in their discharge of security duties. The study argues that if they are not properly trained, they cannot properly key into public service and hence, they cannot be paid very well.

Amidst such risks however, the confusion that comes with the two options of either putting up with the excesses of the vigilante guards, or, risking the insecurity that may come with the disbandment of the AVG, has generated mixed feelings among residents with some proposing that the AVG should be discarded, while some still argue in favour of their retention. This is why an earlier study on Oyi LGA of Anambra State suggests that since the society needs enlightened and trained people in the security sector to fight insecurity, vigilante guards must undergo proper training and be provided with the necessary tools for the job before they can earn not only public respect and trust, but also, the adequate payment as required by the job.

In the same vein, it is the same poor funding that has negated the rule of recruiting people who are indigenes of the community for better appreciation of their operational terrain. However, guards are randomly selected and brought from distant places away from the recruiting town because the job is not attractive to the indigenes of the recruiting communities. Although one of the informants have argued that most times, vigilante commanders prefer such unknown and unfamiliar faces so that they can execute their duties well without any bias or feeling of familial affiliation. However, in most cases, once any of these individuals goes wrong and is sanctioned, he gets angry and resigns. The implication of this is not only that it defeats the idea of guards being familiar with the terrain, but also, it strengthens many criminal gangs since some of the resigning guards are their former members and they have acquired the knowledge of the security structure of the AVG; hence, a big security threat to his immediate society in particular and Nigeria at large.'

All these challenges have affected the effectiveness of vigilante units in many communities with security consequences on the security architecture of the larger Nigeria. As confirmed by Abatete community commander who was lamenting on the reduction of the effectiveness of the vigilante units due to these challenges; he said, "Before, people used to call the Vigilante Group for immediate action but now, they have stopped".

5. Conclusion

There is no doubt that the current security challenges in Nigeria are overwhelming for the official security agencies set up to protect lives and property especially the Nigeria Police. In that regard, it became a matter of necessity that alternative security measures were needed to complement the efforts of the conventional security outfits like the police. Hence, quasi police outfits began to emerge and one of these groups which is discussed in this paper is the Anambra Vigilante Group. The group which began as pockets of vigilante units in different communities and villages of Anambra State, soon secured the legal backing of the state and became a unified body known as the AVG. Since the inception of the AVG, the group has carried out a lot of operations with many successes. However, a lot of challenges have been rocking the group and each of these challenges has its own implication on the security of Anambra state and that of Nigeria as a nation. In as much as it could be argued that the existence of informal security outfits such as the AVG is an indication that state police has indirectly begun to run in Nigeria,

though not officially; however, the challenges identified in turn suggest possible security challenges that could be posed by the establishment of state police in Nigeria. Either way, there is need for an alternative in addressing the security problems of Nigeria; and this alternative has to be a grass root approach; the kind adopted by the AVG in today's Anambra State of Nigeria, though with a rejigged structure and more defined roles. In fact, such a structure could be adopted as a blueprint for the proposed community policing in Nigeria.

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Criminal Victimisation and Factors Responsible for Crime Incidence in Bayelsa West Senatorial District, Bayelsa State, Nigeria

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Abstract. Criminal victimization constitutes a serious threat to national and global development and stability. This study examined criminal victimisation and factors responsible for crime in Bayelsa West Senatorial District, Bayelsa State, Nigeria. Data were acquired through crime victimisation questionnaire survey. A total of 400 respondents were selected using a systematic random sampling method for administration of questionnaire. An administrative map of the study area was acquired from the Ministry of Land and Survey, Bayelsa State which was used as the base map. These data were analysed using both descriptive statistics (frequency and percentages) and the Principal Component Analysis. The study revealed that 65% of the respondents and/or their family members had experienced victimisation by criminals. The study also found that theft/stealing had the highest incidence rate of 44.84% while kidnapping (0.72%) had the lowest proportions. It was also revealed that poverty and unemployment were the major causes of crime accounting for 38.42%. Furthermore the results of the study showed that poverty eradication was the key solution for reducing crime incidents, followed by the provision of employment ranked 1st and 2nd respectively. The study therefore recommends that there is need to create enabling environment for business growth and job creation by the state government to reduce the unemployment figure.

Keywords: Victimisation, Criminal Incidence, Socio-economic, Poverty, Survey

1. Introduction

Crime victimization within and across borders is a serious threat to national and global development and stability. Nigeria has recently been faced with unacceptable levels of delinquency and crime, which are very pitiful, widespread, chronic, devastating and catastrophic for the advancement of growth in the nation (Daukere et al., 2020). The current situation in the country is pitiful, considering that the high rate of criminal victimization of citizens has led to an unattractive investment by local and foreign investors in many parts of the country (Ejemeyovwi, 2015). Judging from print and non-print media, the upsurge in criminal activities such as theft/stealing, assault, false pretense and cheating, armed robbery, murder, arson, rape, indecent assault, house breaking, banditry, abduction, etc. is widespread and appears to regard Nigeria as a failed state incapable of providing protection of life and property to its people.

A variety of reasons have been attributed to the increase in the rate of victimisation of residents. Numerous socio-demographic factors may be responsible for a particular crime, such as household income, educational attainment, employment status, poverty status, age, ethnicity, religion (Mitchell,

2011; Ibrahim and Mukhtar, 2017). Political negotiation and economic advantage (Hazen and Horner, 2007), sexual sex, marriage, adultery, ransom, retaliation, sale, trafficking body parts, slavery, criminal behaviour, murder and for other motives may be other factors for the outbreak of violence and crime (Ibrahim and Mukhtar, 2017). Every crime, however, relates to a place's social and physical characteristics. Therefore it is not possible to overemphasize understanding the social and demographic characteristics of a location in describing the variables of crime occurrence. The lack of accurate data on the occurrence of crime and victimization has hampered the area's perception of the pattern of crime. There are many problems in Nigeria that affect the compilation of accurate recorded crime statistics (Alemika, 2013).

Crime victimization, where individual targets suffer crimes over a period of time, is one of the most profound findings of a decline in crime. The victimization survey is critical in criminological geography to understand the existence and locations of criminal occurrence. This applies to data collection activities focused on respondents who record their own crime encounters as either an offender or a victim (Lynch and Addington, 2010). The official crime reports generated by the criminal justice system, however, mostly suffer from many dimnesses or flaws, such as unreliable figures due to unreported figures of crimes, recorded but unreported crimes and record manipulation to suit political and/or institutional objectives (Alemika and Chukwuma, 2005). Criminologists have developed two strategies for collecting information on the degree and pattern of crime and victimization in a society, to supplement the official statistics given by the criminal justice system. Crime and victim surveys are these tools. The consistency of the victimization study over police data is shown to be fair (Alemika, 2013). It reflects the amount of crime preventable by concentrating attention on individuals and places victimized by crime (Pease and Farrell, 2016).

Criminal victimization varies across communities and defines a sense of protection across households. The occurrence of criminal incidents can elicit many feelings from the general public, such as indignation, sorrow, frustration, disgust, and shock (Eban, 2011). In Nigeria, the CLEEN Foundation conducted National Crime Surveys in 2005, 2006 and 2009 and, overall the study found that 47.1% of respondents across the nation had been victimized by offenders for three years (Alemika, 2011). It was also recorded that the most common forms of victimization were theft of various types of property (money, GSM devices, agricultural products, automobiles, etc.), robbery, domestic abuse, physical assault and burglary. Criminal activities play a detrimental role in both the accessibility and functionality of public facilities in Nigeria's urban environment (Ajayi and Ajayi, 2012). Worldwide, the pattern and severity of the occurrence of crime has become a threat to the well-being of members of society. Crime has become a neighbourhood or national epidemic.

A number of studies in Nigeria had analysed crime using police crime data and victimisation survey methods (Bello, et al., 2012a; Yelwa and Bello, 2012; Bello, et al., 2012b). For example, Yelwa and Bello (2012) assessed property crime in Katsina State, Nigeria using cluster analysis complemented with Geographic Information Systems (GIS) to analyse the crime data collected from the Statistics department of the Nigeria Police Force, Katsina State command. Furthermore, Bello, et al (2012a) conducted a research covering Nigeria by applying algorithms on different interval measures simultaneously. They added that crime data can be classified more efficiently across the country using GIS. In another research by Bello, et al (2014) applied principal component analysis to analyse the pattern of criminal victimization in Katsina Senatorial Zone, Katsina State, Nigeria. The study attempted to identify the common crime types being victimised by residents using crime victimisation questionnaire survey. The result of the analysis showed that theft was the most common crime with 56.4% of the respondents admitted experiencing theft victimization in the study area.

Ajayi and Ajayi (2014) examined and analysed the spatial pattern of crime incidence in and around major motor parks/bus stops in Ibadan metropolis using a questionnaire survey. The findings of the study revealed that over 64% of the respondents had witnessed crime while 38% had been a victim of crime across the five parks of the Metropolis. It further showed that 40.4% of respondents believed that unemployment and poverty are the leading causes of high incidence of victimisation around motor parks in the city. The location of these studies is different from the present study as well as its significant socioeconomic characteristics on the effects of the factors controlling the occurrence of crime.

In Bayelsa State, crime rate is also at alarming rate which has caused protest and public disorder in recent times. The state was ranked 21 out of the 36 states with a total of 1,541 reported cases in 2016 (National Bureau of Statistics, 2017). This situation

has become worrisome and a source of concern to all investors and stakeholders given its negative effects on the development of the state. Bayelsa West Senatorial District is one of the oil rich areas of Bayelsa State, Nigeria. The presence of higher institutions such as University of Africa, Toru-Owa, Isaac Boro College of Education Sagbama, makes it attractive to those seeking opportunities for better livelihoods and living conditions. In recent times, the area is witnessing rapid population increase, accompanied by physical growth and expansion since the creation of Bayelsa State in 1996. The recent increase of the population has been due largely to the influx of persons into these higher institutions.

Therefore the concentration of people and activities in Sagbama, Ekermor and other major communities in the study area is likely to generate social vices such as crime; making it a suitable research site. Also, it is necessary to provide accurate information on victimisation pattern in the area as a research of this kind has not been conducted in the study area prior to this. This will in turn assist the residents and security personnel to understand the spatiotemporal distribution of criminal events in the area. The main aim of this study is to examine the criminal victimisation and factors responsible for crime in Bayelsa West Senatorial District, Bayelsa State, Nigeria. The objectives are to identify the victimisation pattern of residents from various crime types and to examine the factors responsible for crime and how can it be remedied in the study area.

2. The Study Area

The study region of Bayelsa West Senatorial District, Bayelsa State, Nigeria has a total landmass of 2,771.9km^2 comprising Sagbama and Ekeremor Local Government Areas (LGAs) (Daukere et al., 2020). It covers from Latitudes 4º42′N - 5º23′N of the Equator and Longitudes 5º23′E - 6º32′E of the Greenwich Meridian. It is bordered to the north by the Delta State and to the south by the Kolokuma/Opokuma, Southern Ijaw and Yenagoa LGAs of Bayelsa State. There is also a coastline of around 60 km on the Bight of Bonny in the study region. Many of the communities are almost entirely (and in some cases) surrounded by water, rendering them inaccessible by road (see Figure 1).

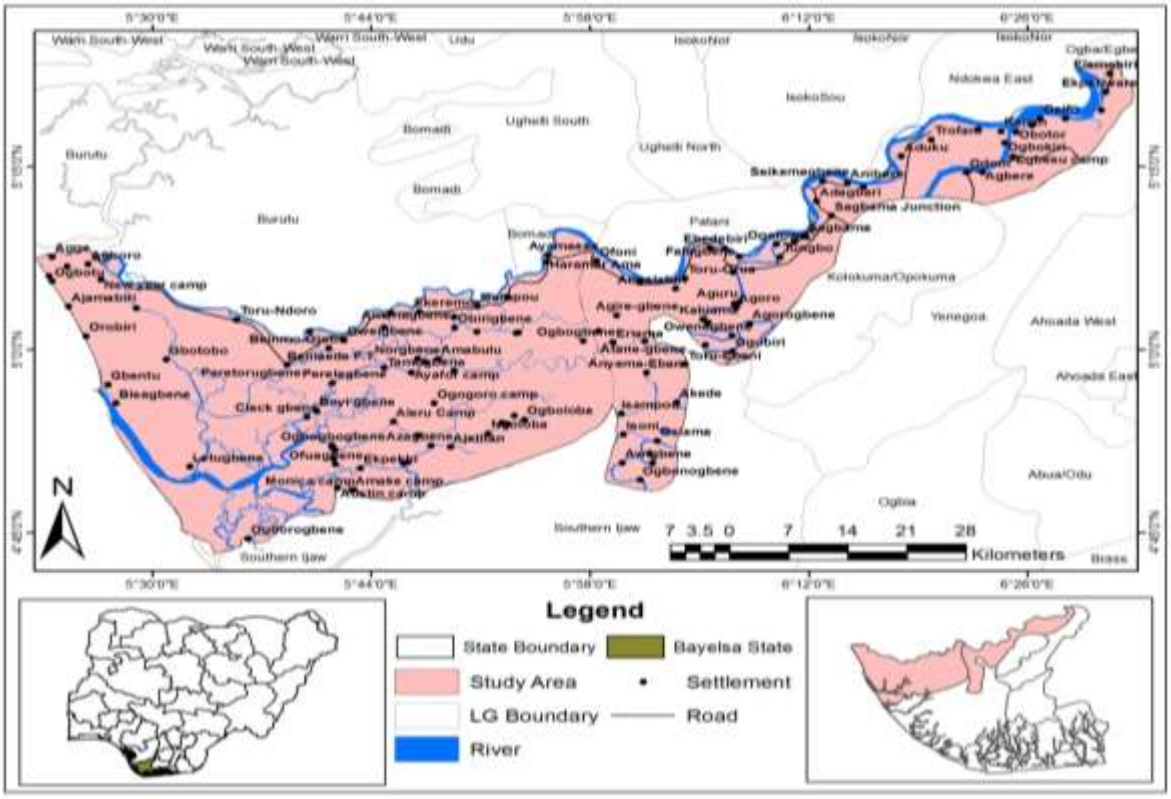

Figure 1: Bayelsa West Senatorial District
Source: Adapted from Daukere et al. (2020)

The tropical monsoon climate of the study region is characterized by heavy rainfall, with an average annual mean of 2,550 - 2,755 mm (Mmom and Akpi, 2014). The area has tropical rain, which typically occurs any month of the year with heavy downpour, but over 80% of it occurs in the months of May to September (State Employment and Expenditure for Results [SEEFOR] Project, 2015). The amount of rainfall is adequate for all-year-round crop production and the wet season is no less than 340 days. The mean minimum annual temperature ranged from 23º - 31ºC with a high relative humidity of about 78-82 percent, the warmest months are December to April, and the relative humidity is high throughout the year and decreases slightly during the dry season (Shell Petroleum Development Company of Nigeria Limited, 2005). The soils of the area, underlain by cretaceous sediments, are of young Quaternary and recent alluvium geological formation and are mostly low-lying. The vegetation in the area is freshwater swamps and lowland rain forests, and these various types of vegetation are associated with the different soil units of the region (State Employment and Expenditure for Results [SEEFOR] Project Bayelsa State, 2016). As a rule, the idea is that foliage encourages crime because it prevents offenders and criminals from being seen (Kuo and Sullivan, 2001). Consequently, the area is heavily vegetated, contributing to fear, fear of crime, and possibly crime itself.

The total population of the study area as of the 2006 population census was 269,588 and 186,869 for Ekeremor and Sagbama LGAs respectively. As of 2010, the population of the study area increased to 512,599 people (National Bureau of Statistics, 2011). Because of population growth and rural-urban migration, the region is undergoing remarkable expansion and change in both political and social structures, where most people are moving to a planned market-oriented economy. Therefore the region's urbanization speed may have a direct effect on high crime rates; a great deal of theorization has been done on why larger cities characterized by anonymity have higher crime rates than smaller communities. The region is dominated by the Ijaw people (Ijo). Pijin is recognized as one of the official languages, but the main local dialect spoken is the Ijaw language of Mein, Tarakiri, etc. Among a multitude of other ethnic groups are the Urhobo, Isoko, Itsekiri, Ogoni, Ikwerre, Epic/Atissa, Ogbia, Igbo, Hausa, and other minority groups.

3. Materials and Methods

A reconnaissance survey was carried out by the researchers in order to have an adequate knowledge of the study area. The administrative map of the study area at a scale of 1:50,000 were acquired from the Ministry of Land and Survey, Bayelsa State. Reliable records of crime victimization in the form of digital police registers in Nigeria are difficult to obtain, so we used the crime victimization questionnaire survey to obtain data on the rate of victimization. The data on socio-demographic characteristics, factors responsible for crime and the solution to crime prevention were obtained from the crime victimisation questionnaire survey. The methodology for data collection was in-home, using a systematic random sampling selection procedure. 400 respondents were interviewed shared proportionally to the population of each ward of the LGAs. The responses were the experience of a respondent and/or his/her relatives over the past five years. The responses on criminal victimization and solution to crime were converted to percentage for the LGAs. On the other hand, the responses on factors responsible for crime were analysed using Principal Component Analysis. The eigenvalues was used to determine how many factors are to be retained (Usman et al., 2012).

Table 1: Projected Population and Sample Size by Wards

S/N	Ward	Population 1991	Projection 2018	Sample Size
1	Tarakiri	14,369	29,577	23
2	Oyiakiri I	9,653	19,870	15
3	Oyiakiri II	10,189	20,973	16
4	Oyiakiri III	2,446	5,035	4
5	Oyiakiri IV	5,786	11,910	9
6	Oporomor I	5,093	10,483	8
7	Oporomor II	24,147	49,774	38
8	Oporomor III	11,285	23,229	18
9	Oporomor IV	11,063	22,772	17
10	Oporomor V	7,663	15,774	12

11	Eduwini I	9,580	19,719	15
12	Eduwini II	13,511	27,811	21
13	Agbere	10,438	21,416	16
14	Angalabiri	11,403	23,472	18
15	Ofoni I	10,892	22,420	17
16	Ofoni II	4,993	10,278	8
17	Ebedebiri	13,757	28,317	22
18	Ossiama	7,142	14,701	11
19	Asamabiri	4,817	9,915	8
20	Odoni	6,400	13,174	10
21	Trofani	3,162	6,509	5
22	Sagbama	12,565	25,864	20
23	Agoro	15,724	32,366	25
24	Toru-Ebeni	11,439	23,546	18
25	Adagbabiri	11,403	23,472	18
26	Osekwenike	4,938	10,164	8
Total		**253,858**	**522,541**	**400**

Source: NPC, Bayelsa (2019)/Author's Compilation (2019)

A total of twenty six wards in the Senatorial District were used in order to analyse crime in the study area (see Table 1). The total population of Bayelsa West Senatorial District was estimated according to the 2006 census as 456,457 people (National Bureau of Statistics, 2011). However, the 2006 population figures of the study area were not disaggregated into the 26 wards. Hence, the 1991 National population and housing census results which were disaggregated into localities were used in order to find the proportion of people in the respective wards of the Senatorial District. The wards population figures were projected to 2018. The projection was based on the average population growth rate of Bayelsa State that is 2.92%, using the Newman's (2001) formula: $P_n = Po + (\frac{1+R}{100} \times Po)\, n$. Having determined the sampling frame, the Yamane (1967) formula was used to determine the sample size thus: $Sample\ Size = \frac{N}{1+N\,(e)^2}$. In each of the wards, the sample size was based on the projected population of the ward. The sample size of the wards was proportional to the population of each ward thus: $\text{Proportion} = \frac{n}{N} \times S$.

4. Results and Discussion

In this section, the results of the analyses are discussed.

Socio-Economic Characteristics of the Respondents

Table 2 presents social characteristics of the respondents interviewed during the field survey. Education teaches individuals to be patient which could discourage crime. The data analysis in Table 4.1 revealed that 45.8% of the respondents had Secondary education while 22.5% obtained tertiary education. The result also revealed that 13.5% of the respondents had no formal education. Respondents with tertiary education are those who had either obtained Diploma, Nigeria Certificate in Education (NCE), or a University Degree. With this result, one could say that the level of literacy in the study area is moderate and this could be linked to the many tertiary Institutions in the area such as Isaac Boro College of Education, Government Teacher's Training Institute, Bayelsa State Polytechnic and a campus of the Niger Delta University and the University of Africa. Educational attainment of individuals is very important in crime reduction strategy because there is a relationship between education and crime from an economic perspective. Educational qualifications directly influence high earnings of people which may reduce time spent in criminal events. This implies that individuals who had acquired higher education such as a university degree may affect major source of their income which can reduce high crime rate if employed.

In Nigeria and perhaps some other places across sub–Saharan Africa, a household may be home to 14 or more people, and several families may live in the same housing unit. The findings of the study as presented in Table 4.1 revealed that 26.8% of the respondents had family sizes between 5 and 7 and this was closely followed by 2-4 people accounting for 24%. The family sizes with 11-13 persons had the lowest proportions (10%). The finding revealed that

61.4% of the respondents had family sizes of at least 5 persons and above. The significance of this information is that a further cause of crime can be found in dysfunctional family life and childhood, which can lead to a life of crime. Family violence and other issues are also related to crime in many ways (Yaacoub, 2017). The high figure of respondents with large family sizes could be attributed to poverty and unemployment which could also lead to life of crime. This finding corroborates with that of Umar (2017) wherein the study revealed that the household size 6-10 persons was high accounting for 42.48% in Kaduna Metropolis and are thus beset by acute unemployment, poverty and inequality leading to high crime rates in the disadvantaged neighbourhoods.

Table 2: Socio-Economic Characteristics of the Respondents

Variable	Frequency	Percentage
Educational Qualification		
No formal education	54	13.5
Primary	73	18.3
Secondary	183	45.8
Tertiary	90	22.5
Total	**400**	**100.0**
Household Size		
Less than 2	59	14.8
2-4	96	24.0
5-7	107	26.8
8-10	51	12.8
11-13	40	10.0
14 and above	47	11.8
Total	**400**	**100.0**
Duration of stay at this locality		
Less than 1 year	40	10.0
Between 1-2 years	39	9.8
Between 2-5 years	46	11.5
More than 5 years	275	68.8
Total	**400**	**100.0**
Religion		
Christianity	368	92.0
Islam	8	2.0
Traditional worshipers	24	6.0
Total	**400**	**100.0**
Primary Occupation		
Farming	193	48.25
Trading (Business)	64	16.0
Artisan	67	16.75
Civil service	76	19.0
Total	**400**	**100.0**
Monthly Income		
Bellow 18,000.00	192	48.0
18,001.00-45,000.00	118	29.5
45,001.00-60,000.00	46	11.5
60,001.00-75,000.00	35	8.8
Above 75,000.00	9	2.3
Total	**400**	**100.0**

Source: Field Work (2019)

Furthermore, the length of an individual's stay in a specific geographical region is important for the understanding of people and their setting. Accordingly, the finding of the period of living analysis shows that 68.8% of respondents have been living in the research area for more than 5 years. This implies that long period of living is important in account of crime history in a given area. The longer duration of living enhances provision of reliable information regarding the occurrences of crime

incidents in the study area. It is also fair to conclude that most of the respondents would have clear knowledge on the history of the occurrence of crime in their respective neighbourhoods.

In addition, the distribution of the respondents by religion reveals that 92% of the respondents were Christians, 2% were Muslims while 6% of the respondents were traditional worshipers. The religious believe of the people in the study area influences their experiences and attitudes towards crime. Findings have shown that religion tends to have a deterring influence on crime-related attitudes and behaviours (Adamczy et al., 2017).

Table 2 also reveals that 48.25% of the respondents were farmers, 19% were civil servants while 16% were engaged in trading. The finding also corroborates the observations of Alagoa (1999) which shows that most of the people in the Sagbama LGA were engaged in agro-based occupations such as cassava production, fishing, and palm oil extraction. The study further revealed that artisan accounted for 16.8%. The study therefore revealed that 81% of the respondents were engaged in informal sector which is characterised by uncertainty as some of the gains accruing to the traders, peasant farmers and artisans are seasonal. This could predispose some to criminal acts when their livelihoods could not make ends meet. This assertion can be justified when viewed from the fact that 48.0% of the respondents earned below ₦18,000 while 2.3% of the respondent earned above ₦75,000 on monthly basis. The income levels of respondents from various occupations determine how much someone is prone to crime. The finding corroborates with Oyinloye et al. (2017) where 40% of the income of respondents earn below the then national minimum wage of ₦18,000 per month in Akure, Nigeria. Income levels influence crime in a neighbourhood where an increase in income level decreases crime rates (Wang et al., 2019).

Demographic Characteristics of the Respondents

Table 3 presents the demographic characteristics of the respondents. As shown in Table 3, 64.3% of the respondents were males while 35.8% were females. This result agreed with the population census of 2006 for Ekeremor and Sagbama LGAs of Bayelsa State where males were more than the females. The findings also agreed with that of Olajuyigbe et al. (2015) in the southern part of Nigeria which showed higher proportion of males. This suggests that, as Francois et al. (2015) found that males were rated as the gender most likely to commit crime in Ho Metropolis, Ghana, by 87.25% of respondents, crime may be high in this study area due to the large number of males.

Table 3: Demographic Characteristics of the Respondents

Variable	Frequency	Percentage
Sex		
Male	257	64.2
Female	143	35.8
Total	**400**	**100.0**
Age Group		
15-20	33	8.3
21-26	51	12.8
27-32	99	24.8
33-38	95	23.8
39-44	35	8.8
45-50	24	6.0
51-56	27	6.8
57-62	20	5.0
63 and above	16	4.0
Total	**400**	**100.0**
Marital Status		
Single	128	32.0
Married	225	56.25
Divorced	16	4.0
Separated	8	2.0
Widowed	23	5.75
Total	**400**	**100.0**
Number of children		
None	125	31.3
1-2	87	21.8
3-4	70	17.5
5 and above	118	29.5
Total	**400**	**100.0**

Source: Field Work (2019)

The distribution of the respondents by age group is also given in Table 3. The importance of understanding the age-crime relationship is one of the most vital within the field of criminology. Age class of a given area determines the type of crime events that will be prevalent in that area. Results in Table 3 shows that the age group 15-38 years accounts for 69.7% of the respondents. The significance of this information by extension implies that it is likely not that most of the people that fall within the working population are gainfully employed and as such, incessant criminal events in the area could be linked to the presence of few firms which are willing to hire the youths, while others who hire often retrench their staff due to poor economy and the inability of the local government councils, state government and the multi-national oil companies to absorb the jobless able-bodied youths. This finding corroborates with that of Nwachukwu and Bartholomew (2015) wherein the study revealed that the people within ages 25-40 years in Owerri Metropolis was high and are thus beset by acute unemployment, poverty and drug addiction with its consequential effects on criminal incidence.

The findings of the study further revealed that 31.3% of the respondents had no child while 29.5% had more than five children, 17.5% had 3-4 children while 21.8% had 1-2 children. This information is importance in understanding the likelihood of children engaging in crime. For instance, street children phenomenon which is a worldwide challenge where no nation across the world is exempted from the challenge of children neglect and parental un-readiness that results in abandonment and outright lack of care that drives such children unto the street to find ways and means of fending for themselves.

In addition, more than 56% of the respondents were married and it is not unexpected that some of such people might get evolve in crime in order to meet up with ends need while 32% were not married. The finding further revealed that 5.8% were windowed, 4% divorced while only 2% were separated. The finding of the study corroborates with Oyinloye et al. (2017) where the authors found out that the married people were more than single in Akure, Nigeria.

Crime Types Experience By Respondents in Bayelsa West Senatorial District

Crime victimization survey was used to measure the extent and pattern of victimization experienced among members of the localities across the study area. This was done in order to compare the respondents' experiences with various types of crime to the crime reports from the police divisions. There were noticeable differences in the rate of occurrence of each of this crime type across the 26 political wards of the study area. Table 4 shows the experience of crime victimization of respondents in the study area.

Table 4 shows the experience of victimization among respondents and/or their family members in the five (5) years prior to the time of survey. Findings revealed a total of one thousand eight hundred and eleven (1811) cases of incidences of victimisation by criminals on respondents and/or their family members. The findings depict that 65% of the respondents and/or their family members had been victim of criminals. 35% of the respondents opined that they had not experienced or witnessed any crime type in their neighbourhood. This implies that a larger proportion of the respondents admitted that they or their family members had experienced and/or witnessed the occurrence of criminal acts within and around their neighbourhoods. This indicates that the study area has a high crime rate. These results corroborate to those of Arisukwu et al. (2020), in which 59.2% of the respondents had been victims of crime for at least once in Omu Aran and Ilofa communities of Irepodun and Oke Ero LGAs respectively of Kwara State, Nigeria. This table further revealed that theft/stealing accounted for 44.84% of the incidence rate followed by assault with 18.55% while kidnapping had the lowest proportions of victimisation rate with 0.72%. It reveals that theft/stealing represented the largest proportion of all crime types experienced or witnessed in the area. This figure is in sync with the crime statistics collected from the Divisional Headquarters of the area which recorded that theft/stealing was the crime type with highest incident rate for the period considered in this study. This could also be attributed to the fact that the area is characterised by lower income earners with about 48% of the respondent earning less than 18,000 naira (see Table 1). This shows that the residents are highly susceptible to higher levels of thefts in the disadvantaged neighbourhoods. This study also corroborates with the study conducted in Kaduna, Nigeria by Umar (2017). The author reported that there was a strong relationship between neighbourhoods of high rate of theft and lower socio-economic status.

Table 4: Experience of Crime Victimization by Respondents

Variable	Frequency	Percentage
Victimized or witnessed crime		
Yes	260	65.0
No	140	35.0
Total	**400**	**100.0**
Types of Crime being a victim or witnessed		
Armed Robbery	95	5.25
Murder/Homicide	37	2.04
Attempted Murder	21	1.16
Theft/Stealing	812	44.84
Assault	336	18.55
Rape	46	2.54
Attempted Rape	91	5.03
Forgery	48	2.65
Burglary/Home Breaking	224	12.37
Suicide	23	1.27
False Pretense and Cheating	65	3.59
Kidnapping	13	0.72
Total	**1811**	**100**

Source: Field Work (2019)

Rape was underreported in police crime records, according to one observable feature of the findings. There was also no mention of suicide in the police reports. For example, 7.57% of respondents and/or their family members have been the victims of rape or attempted rape. This figure is higher than what the police have reported in the study carried out by Daukere et al., 2020 which cover same time period. Furthermore, suicide was not recorded in police records, despite the fact that 1.27% of respondents in the victimization survey said they had witnessed suicide in their neighbourhood. During a survey of the area's social and physical characteristics, it was discovered that the majority of crimes were reported to family members, Community Development Committees (CDC), or the council of chiefs. As a result, it is reasonable to conclude that rape and suicide are underreported to the police authority in the study area. This could also be due to the unique nature of these types of crimes. Victims of rape and other forms of sexual victimisation may refuse to report their crimes due to social stigma, fear of retaliation from their attackers, or a lack of trust in the criminal justice system.

Factors Responsible for Crime Prevalence in Bayelsa West Senatorial District

Table 5 presents the factors responsible for the occurrence of crime on respondents and/or their members by criminals. All the variables that are responsible for the causes of crimes in the study area are relatively important. Though, there is variability in the contributions of each of these factors which could be clearly seen as the eigenvalues are greater than one. From Table 4.5, considering the eigenvalues and cumulative per cent, it is reasonable to retain the first four PC's that explained up to 69.21% of the causes of high crime rate in the study area. It can be observed generally, that poverty (1.45) is the leading causes of high incidence rate of crime occurrence followed by unemployment with eigenvalue 1.24 in the study area. These factors accounted for 38.42% of the total variance explained with its significant positive loading. The characteristics of these factors, lean towards the fact that more people commit crimes when they are unable to earn good standard of living to meet their family needs. The findings corroborates with an earlier report by Ajayi and Ajayi (2014) that 40.4% of the respondents in Ibadan attributed the leading causes of high crime rates in the surrounding motor packs in the city to unemployment and poverty. Adewuyi et al. (2017) also reported that 79.1% of the respondents posited that high rate of unemployment and poverty were the major causes of high crime rate in Abuja Municipal, Nigeria. This could be attributed to the fact that 48% of the respondents in this study earn less than 18,000 naira (see Table 3). This

signifies that the area is characterised by unemployment with low income earners. This shows that the residents are highly susceptible to higher levels of thefts and other crime types.

Table 5: Factors Responsible for Crime Level

Factors	Eigenvalue	Individual %	Cumulative %
Poverty	1.453	20.759	20.759
Unemployment	1.236	17.659	38.418
Low level of education	1.113	15.898	54.316
Real need (A motivating force that compels action for its satisfaction)	1.042	14.889	69.206
Greed	0.948	13.542	82.748
Financial motive	0.79	11.289	94.036
Lack of parental upbringing	0.417	5.964	100

Source: Field Survey (2019)

More importantly and again, low level of education accounted for 15.9% of the total variance explained. This factor leads to meagre income of the household heads which affects the meeting of their obligations or family responsibility. The family educational attainment may affect children's academic achievement at an early stage which may affect subsequent criminal decisions by these children when grown to adulthood.

Solutions to Crime Prevalence in Bayelsa West Senatorial District

The study further unravelled the likely solutions for this trend of crime and victimisation rate in the study area. The solutions to crime reduction for each measure are shown in Table 6.

Table 6: Responses on Solutions to Crime Reduction

Solutions to Crime Reduction	Frequency	Percentage	Ranking
Eradicate poverty	174	43.5	1st
Provide employment	172	43.0	2nd
Better education and upbringing of children	65	16.3	3rd
Behavioural interventions programmes	57	14.3	4th
Youth counselling	53	13.3	5th
Stricter alcohol/drugs policies	51	12.8	6th
Hotspots-policing	45	11.3	7th
Others (Electricity, perimeter fencing)	3	0.8	8th

Source: Field Survey (2019)

The findings in Table 6 revealed that 43.5% of the respondents indicated eradication of poverty which ranked 1st as the major solution for crime reduction strategy. Any person who lives below $1.25 a day is living below the poverty line. Poverty can propel residents towards crime as a way to make ends meet. Sometimes, a person who is poor might believe that kidnapping or other illegal acts could provide the necessary money to start a new life. This is closely followed by provision of employment which ranked 2nd with 43% of the respondents who indicated it importance in crime reduction strategy. Therefore, an unemployed cash-strapped individual may believe that when he kidnaps someone who is rich, he may be able to become rich himself. 16.3% of the respondents identified better education and upbringing of children while only 11.3% of the respondents indicated hotspots-policing as a factor for reduction of criminal victimisation in the area. The study further revealed that only 0.8% of the respondents identified other factors such as electricity, perimeter fencing as the factors to reduce victimization rate in the area.

5. Conclusion

The socio-demographic features associated with the incidence of crimes in the Bayelsa West Senatorial District, Bayelsa State, Nigeria have been investigated in this study. It showed the pattern of crime as indicated by the respondents. The primary objective was to define certain distinctive patterns of occurrence of crime and to investigate the contributing factors with the frequency of these crimes. All the forms of crime encountered in the region were largely the same although the incidences

of their occurrence varied. The study showed that theft/stealing was the most prevalent type of incidence of crime encountered across the region's settlements. The research further revealed that the major factors responsible for the occurrence of crime were poverty and lack of employment. Equally, the eradication of poverty and the provision of employment have been identified as the main solution to the reduction of crime in the study area.

6. Recommendations

The study recommends the following:

A large number of the respondents were of the productive age; by extension, this implies that most of people who involve in criminal activities are of the productive age; therefore, the Bayelsa state government and Multinational oil companies and other stakeholders from the communities should establish poverty alleviation programmes targeted to women and youths in modern farming system and other vocational skills. This could be achieved by making Agric-business to be exciting, creative and innovative enough to stir and spur youth interest through awareness campaign e.g. media, fliers. Also, government should invest massively in agriculture and encourage youths into this direction. In addition, growth policies should not be politicised so that the real people in need of the programmes would benefit immensely from it and not the other way round.

The results of the analysis show that low level of education as the third leading factor responsible for crime occurrence in the area. Thus, occurrences of crime involve sociocultural, ethno-religious and ethical characteristics, it is therefore important that greater attention should be given to the moral education of the general populace. This could be achieved through the collaboration of the schools authorities, parents, teachers and the LGCs members of the area by ensuring that the populace imbibes the ethics of hard work and genuine living.

A large number of the respondents have adduced poverty and unemployment as the major causes of crime in the study area. It is therefore needful for the Bayelsa State Government, multinational oil companies, and the local government councils to provide viable employment opportunities for the youth and channelling their energies into the development of sustained livelihoods which can reduce current tensions and crime in the local communities of the study area. This could be achieved by reviving the traditional economic activities and coming up with poverty alleviation programmes and employment opportunities, targeting youths who are likely to involve in crime due to economic frustration such as unemployment.

Finally, it is also recommended that there should be improvement in the neighbourhoods policing by the residents which will go a long way to abate crime as suggested by some of the residents that were interviewed whom attributed crime in their neighbourhood to erratic power supply and lack of hotspots policing.

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Effects of Flooding on Internally Displaced Persons (IDPs) in a Flood Prone Area: A Case Study of Muye Town in Lapai Local Government Area, Niger State, Nigeria

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Abstract. In the event of an approaching disaster, people either do not get information on time or do not receive adequate information that helps them to make informed decisions on the appropriate action to take. The aim of an early warning system is to empower individuals, groups of individuals or businesses to respond timely and in an appropriate manner to hazards. Early warnings are broadcast to all the people in an area, even those that are outside the danger area. This may also lead to panic. The recurring and high frequency of floods in Muye/Egba ward of Lapai local government area has continuously destroyed infrastructure, crops, properties, livestock's and in some cases displacement and deaths . Therefore this study seeks to examine the effects of flooding on internally displaced persons (IDPs) in a flood prone area. Both qualitative and quantitative methods of data collection were adopted using questionnaire and qualitative research methods in analyzing data obtained scientifically through coding using STATA special edition and Microsoft Excel. The findings from the data gathered during the study show that, backflow effects, heavy rainfall, were the major nature in which flooding took place in Muye town. The research further finds that there were more than thirty communities which are always the worst hit during flooding more than muye that require urgent attention and intervention from all quarters and the urge to avert such crisis. Information and communication technologies can contribute to the lessening of risk of flooding disaster and displacement, effective linking of the existence of institutions that allow for the effective mobilization.

Keywords: Effects, flooding, internally displaced persons, displacement, mobilization

1. Introduction

Among all observed natural and anthropogenic adversities, water-related disasters are the most recurrent with recorded number of fatalities highest in Africa, accounting for more than 46% of the world total in 2006 (Adikari and Yoshitani, 2009). The water-related disasters like floods increase the vulnerability of rural households that mainly depend on rain fed agriculture and livestock production for their livelihoods (Smucker and Wisner, 2008).
Floods all over the world have caused considerable loss of property, destruction of crop land, roads and utilities and even loss of life. More far-reaching consequences can include loss of income, disruption of services and environmental devastation. For example, from 1983 to 1993, annual flood losses in the United States averaged $3 billion dollars and Continue to rise (Cartwright, 2005). These floods destroy agricultural products, personal Property, businesses, and disrupt livelihoods. Yet, despite the risk, people choose to remain located in the floodplains.

This presents a challenge for local, state, and federal governments, floodplain managers, and the people who live there. There is convincing evidence that the frequency and magnitude of disasters is increasing, and that poor countries and poor communities are disproportionately affected. More than half of disaster deaths occur in less developed countries even though only 11% of people exposed to hazards live there. These countries also suffer far greater economic losses relative to their Gross Domestic Product (GDP) than richer countries (DFID, 2004:1).
One of the contemporary challenges facing the Nigerian state is how to provide succour to the plights of the internally displaced persons (IDPs),

occasioned by floods and incessant violent attacks. Internal Displacement remains one of the most significant challenges facing the humanitarian community. For instance, Kofi Annan notes that, "Internal displacement has emerged as one of the great human tragedies of our time. It has also created an unprecedented challenge for the international community: to find ways to respond to what is essentially an internal crisis, protection should be central to the international response and [with] assistance should be provided in a comprehensive way that brings together the humanitarian, human rights, and development components of the United Nations" (Annan, 1998:3).

Protection is defined as all activities aimed at obtaining full respect for the rights of the individual in accordance with the letter and spirit of the relevant bodies of law, namely Human Rights Law, International Humanitarian Law and Refugee Law. Hence, protection can also be perceived as, an objective, a legal responsibility and an activity international committee of red cross (ICRC, 2001). Thus, this article concentrates on the Effects of flooding on internally displaced persons (IDPs) in a Flood Prone Area a Case Study of Muye Town in Lapai Local Government Area of Niger State, Nigeria. Therefore it is a legal responsibility, principally of the State and its agents.

Furthermore, there is no legal definition of who constitutes an "internally displaced person" in International Law. However, the notion of IDPs set out in the introduction to the Guiding Principles is meant to be descriptive rather than normative, drawing attention to the characteristics of IDPs that make them inherently vulnerable.

For the purposes of these Principles and for this article, Internally Displaced Persons (IDPS) are persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights, or natural or human-made disasters and who have not crossed an internationally recognized State border (UNOCHA, 2008). Note that two elements are decisive in identifying who is an IDP: firstly, the coercive or otherwise involuntary character of movement that is, movement caused by armed conflict, violence, disasters, and the like; and secondly, the fact that such movement takes place within national borders (Mooney, 2003b).

The first element distinguishes IDPs from individuals who left their homes out of choice and could have otherwise safely remained where they lived. The second element explains why IDPs are not refugees. Refugees, by definition, are outside their country of nationality or habitual residence. In other respects, however, both categories of displaced persons often face similar risks and deprivations (UNHCR, 2006). Unlike refugees, IDPs remain citizens or habitual residents of their country and are entitled to protection and assistance on that basis alone (UNHCR, 2006).

Likewise, the former UN Secretary- General late Kofi Annan drew attention to "the growing problem of internally displaced persons" (IDPs) in his 2005 report on UN reform in larger freedom. Unlike refugees, IDPs do not cross international borders and thus have no well-established system of international assistance or protection. IDP's, Annan argued, "often fall into the cracks between different humanitarian bodies. Hence, UN reform must encourage greater national and international involvement with IDPs by promoting the Guiding Principles on Internal Displacement, giving the UN High Commissioner for Refugees (UNHCR) a broader role with IDPs, and strengthening institutional and military arrangements to defend their physical safety (Cohen, 2006).

The Guiding Principles underscore this "national authorities that have the primary duty and responsibility to provide protection and Humanitarian assistance to internally displaced persons within their jurisdiction. "The UN Inter-Agency Standing Committee (IASC) policy paper also affirms that the protection role of international agencies and NGOs should involve "reinforcing national responsibility and supporting, not substituting for, the protection responsibilities of competent authorities (Bagshaw and Paul, 2004:29).

2. Statement of the Problem

Over the past years, providing protection and assistance to internally displaced persons (IDPs) has become a major concern for states, international organizations, and non-governmental organizations. Refugees, outside of their own state and unable to count on its protection, are provided protection through an international refugee regime based in law particularly the 1951 Convention Relating to the Status of Refugees and its 1967 Protocol and organizations particularly the UN High Commissioner for Refugees (UNHCR) (UNHCR, 1951).

By contrast, IDPs, though displaced for similar reasons, do not have the same protections since they remain within their own state. Primary responsibility for their protection continues to rest with the territorial state (Cohen and Deng, 1998). It is also on record that in 2013 alone, 470,500 persons were displaced across communities in some parts of Nigeria due to Boko Haram insurgency and other humanitarian emergencies (HRW, 2014). Besides, available statistics shows that Nigeria has the highest number of displaced persons in Africa which is estimated at 3.3 million people as at the year 2014 (IDMS, 2014 and NRC, 2014).

The figure includes those displaced as a result of Boko Haram insurgency, communal conflicts, floods disaster and incessant clashes between farmers and Fulani herdsmen in the northeast. On a global scale, Nigeria is ranked behind Syria, with 6.5 million IDPS and Colombia with 5.7 million (IDMS, 2014 and NRC, 2014). Statistics from HRW (2014) asserts that the IDPs figures have risen unprecedentedly in the preceding years due largely to increasing number of Boko Haram attacks, heavy–handed counter-insurgency and ongoing inter-communal violent conflicts in some communities across the country. For instance, the clashes between farmers and Fulani herdsmen in states of Benue, Taraba, Zamfara and Kaduna displaced 100,000 persons in 2014 (NEMA, 2015). Over the years, the growth of IDPs figure in Nigeria is quite alarming. As at April, 2015, IDMC estimates that 1,538,982 people were forced to flee their homes in Nigeria. This figure include people displaced in as result of brutal attacks by Boko Haram insurgency, the government led counter-insurgency operations against the group, ongoing inter-communal clashes. The biggest rise in the number of IDPs was recorded in Borno state, one of the Northeastern states ravaged by Boko Haram insurgency, followed by Adamawa, and Yobe states. As at April 2015, Displacement Tracking Matrix (DTM) assessment, set up by the Internal Migration Organization (IOM) identified 1,491,706 IDPs in states of Adamawa, Bauchi, Borno, Gombe, Taraba and Yobe with about six percent of this figure attributed to inter communal clashes while the remaining ninety four percent of these figure is caused by Boko Haram insurgency. Obviously, time is ripe to provide modalities for addressing the plights of the IDPs, with a view to ameliorating their sufferings and repositioning them to contribute meaningfully to socio-economic development of the country.

Global IDP Database of the Norwegian Refugee Council has now updated its country profile on internal displacement in Nigeria. Internal displacement already occurred in Nigeria 30 years ago, when during the Biafran war (1967-1970) some two million people died and ten million people became internally displaced.

However, across the globe, floods have posed tremendous danger to people's lives and properties. Floods cause about one third of all deaths, one third of all injuries and one third of all damage from natural disasters (Askew, 1999 cited in Angela, 2011). In Nigeria, the pattern is similar with the rest of world. Flooding in various parts of Nigeria have forced millions of people from their homes, destroyed businesses, polluted water sources and increased the risk of diseases.

Whereas flooding itself is a situation that results when land that is usually dry is covered with water of a river overflowing or heavy rain, flooding occurs naturally on the flood plains which are prone to disaster. It occurs when water in the river overflows its banks, or sometimes results from a constructed dam. Thus, according to Daily Trust online News report of September 10, 2018, the flood situation has worsen in Lapai local government of Niger state with residents lamenting that over 8, 000 persons have been displaced, while four persons were said to have died.

The National President of Kakanda Development Association, Alhaji Ismaila Abdullahi Sokun, had told Daily Trust on phone that Lapai is witnessing immense humanitarian crisis, while calling for urgent interventions. He said 35 communities are currently submerged, adding that natives who flee to uplands for safety slept in the open without shelter and food.

The Director General of Niger State Emergency Management (NSEMA) Alhaji Ahmed Ibrahim Inga said the figure of displaced persons could be more as the water level kept increasing by the day. It was observed that the recent release of water from both Jebba and Kainji dams further exacerbated the crisis in the local government which serves as confluence of many rivers (Daily Trust, 2018).

The Lapai Emirate, is a traditional society that lies near the Gurara River, a tributary to River Niger. Lapai is a Local Government Area Headquarters in Niger State, Nigeria, adjoining the Federal Capital Territory, on the A124 highway in the west of the area at 9°03′00″N 6°34′00″E. It has an area of 3,051 km² and a population of 110,127 at the 2006 census. It is also an Emirate and a town in Niger state. It is located in the southern part of Niger state and shares borders with Paikoro and Agaie local government areas.

3. Objectives

- To determine the effects of early warning and empowering individuals, groups of individuals or businesses to respond timely and in an appropriate manner to hazards.
- To guard against the destruction of infrastructure, crops, properties, livestock's and deaths of victims.
- To examine the effects of flooding on internally displaced persons (IDPs) in flood prone areas of Niger State.

4. Methodology

Descriptive survey research design was adopted since data elicited focused on the narration of facts and characteristics of a particular situation. Both quantitative and qualitative approaches were used. Questionnaires were used to collect both quantitative data. It was also adopted to capture data on people's opinions or perceptions on the state of the households' response. There was use of closed and open ended questions to streamline responses for easy analysis and probing independent views respectively. Wilson (2006) defines the qualitative approach as an unstructured research methodology that is carried out using a small number of carefully selected individuals to produce non quantifiable insights into behaviour, motivations and attitudes. A case study research design was then adopted for the research. The case study design provided the researcher with a rigorous, holistic description and analysis.

4.1 Location

Muye town is located in the Lapai emirate, today in Niger state of Nigeria and it is a traditional state that lies near the Gurara River, a tributary to the Niger River, Lapai is a Local Government Area in Niger State, Nigeria, adjoining the Federal Capital Territory. Its headquarters are in the town of Lapai on the A124 highway in the west of the area at 9°03′00″N 6°34′00″E. It has an area of 3,051 km² and a population of 110,127 at the 2006 census. It is located in the southern part of Niger state and shares borders with Paikoro, Gurara and Agaie local government areas and Abaji Area council in the Federal Capital Territory, Abuja and Koton Karffe Local Government Area of Kogi State respectively.

The study was conducted in Muye town of Lapai Local Government Area of Niger State, Nigeria. The major economic activity practiced in the area is peasant farming. The area is worst affected by floods because it is located along river Gurara.

4.2 Sample Size and Sampling Techniques.

The sample size of this study is eighty seven (87). A systematic method was employed to arrive at the sample size but due to time limit for this study and insufficient resources. To achieve this, probability and non-probability sampling methods were adopted. For probability sampling method, a multi stage cluster sampling technique was used to elicit information from the respondents in the field. Multi stage cluster sampling was considered because it is a probability sampling technique that guarantees every member of the population an equal chance of being selected into the sample.

4.3 Methods of Data Collection

This study adopted both quantitative and qualitative methods of data collection. For the quantitative method, survey technique, was used to source information from the respondents. The questionnaire was a mixture of close and open ended questions. The closed ended questions provided the respondents with options from which they were expected to select the most appropriate option. On the other hand, open ended questions were used to allow the respondents express themselves freely.

4.4 Methods of Data Analysis

The research work made used of two methods of data collection that are complementary and therefore, two methods of data analysis were also employed. Qualitative and quantitative research methods were adopted in analyzing data. Some of the data obtained in the research was analyzed scientifically using STATA Special edition and MS Excel.
Observations, semi-structured interviews and focus group discussions require the use of qualitative data analysis techniques. Bearing in mind that qualitative data analysis starts in the field, for example, through attaching people's actions in tandem to their words. These will allow the researcher to understand social reality in a subjective but scientific manner. Due to the open nature of many of the questions, respondents frequently provided responses to questions that had not yet been asked.

4.5 Data Presentation, Analysis and Discussion of Findings.

4.5.1 The Socio-Demographic Characteristics of the Respondents.

The socio demographic characteristics of the respondents is thus; that 58.62% with 51 times frequency were male and the majority of the respondents while 40.38% with 36 times frequency of female and that 13.80% 12 times frequency represent age category of 18-25 years, 28.73% with 25 times frequency represent age 26-30 years, 27.58% with 24 times frequency represent age grade between 31-40 years, 29.89% with 26 times frequency were of age 40 years and above respectively, marital status shows the respondents categories that, 19.55% with 17 times frequency were single, 72.41% with 63 times frequency were married and the majority of the respondents, 3.44% with 3 times frequency constitute widowed category and 4.60% with 4 times frequency represent the divorced respondents. Level of education of the respondents affirmed that, 33.33% with 29 times frequency represent those who attended primary school, 18.39% with 16 times frequency represent those who have attended secondary school, 9.19% with 8 times frequency represent those who have attained 'A' level, while 39.08% with 34 times frequency represent those who have attained tertiary education, Occupational category of the respondents indicates that, 14.95% with 13 times frequency represent those working as civil servants, 50.58% with 44 times frequency represent those working as peasant farmers, 8.04% with 7 times frequency represent those who are into building construction, 26.43% with 23 times frequency represent who are into other services as their career. Respondents classification based on a number of persons per household confirm that, 4.65% with 4 times frequency represents a house with less than persons, 23.25% with 20 times frequency represent those with person of 4-6 occupants, 15.12% with 13 times frequency represent a household of 6-10 and 56.98% with 49 times frequency represent a household of 10 persons and above and one of the respondent did not attempt nor answer this question.

5. Results

Main causes of floods in the area

Variables		Freq.	Percent	Cum.
a. Heavy rainfall	1	27	31.03	30.68
b. Backflow effects of deforestation	2	6	6.90	37.50
c. Dam overflow	3	50	57.47	94.32
d. Others specify	4	4	4.60	98.86
Total		87	100.00	

Table 1 shows respondents' responses as follows, 31.03% with 27 times frequency represents causes of flood as a result of heavy rainfall, 6.90% with 6 times frequency represent those who responded that it is as a result of backflow effects of deforestation, 57.47% with 50 times frequency represent those who agreed that flood is caused as a result of dam overflow and 4.60% with 4 times frequency represent those who said flooding is caused as a result of other effects other than those identified in the questionnaire.

Floods Occurrence in the Muye

Variables		Freq.	Percent	Cum.
a. Every year	1	82	94.25	93.18
b. 2 – 5 years	2	5	5.75	98.86
Total		87	100.00	

Table 2 shows that, 94.25% with 82 times frequency represent those who responded that flooding occurs every year, while 5.75% with 5 times frequency said flood occurs every 2-5 years.

Proximity to the River

Variables		Freq.	Percent	Cum.
a. 0 – 2km	1	82	94.25	93.18
b. 3 – 4km	2	5	5.75	98.86
Total		87	100.00	

Table 3 shows that 94.25% with 82 times frequency represent those who responded that the live in a house distance from the river between 0-2 kilometers, while 5.75% with 5 times frequency represent those who live a distance between 3-5 kilometers from the river.

Impact of Early Warning Signals

Variables		Freq.	Percent	Cum.
Yes	1	26	29.89	29.55
No	2	61	70.11	98.86
Total		87	100.00	

Table 4 shows that 29.89% with 26 times frequency responded yes while 70.11% with 61 times frequency responded No to the question.

Need for relocating because of Flooding

Variable		Freq.	Percent	Cum.
Yes	1	80	91.95	90.91
No	2	7	8.05	98.86
Total		87	100.00	

Table 5 Shows that 91.95% with 80 times frequency responded yes and 8.05 with 7 times frequency responded No to the question.

Medium of Communicating Information

Variable		Freq.	Percent	Cum.
Yes	1	20	25.31	25.00
No	2	59	74.69	98.75
Total		79	100.00	

Table 6 Shows that 25.31% with 20 times frequency respondents said yes while 74.69% with 59 times frequency said No and 9.19% with 8 times frequency did not respond to the question from the sample population adopted.

Need for Government to Provide Assistance when Flooding Occurs

Variable		Freq.	Percent	Cum.
Yes	1	65	83.33	82.28
No	2	13	16.67	98.73
Total		78	100.00	

Table 7 Shows that 83.33% with 65 times frequency responded yes while 16.67% with 13 times frequency responded No and 16.67% with 9 times frequency did not attempt the question from the study population.

Medium of Receiving Information about Flood

Variables		Freq.	Percent	Cum.
a.Siren/alarm	2	1	1.26	1.25
b.Animal signals	3	10	12.65	13.75
c.Smelling the river	4	25	31.64	45.00
d.Others	5	43	54.45	98.75
Total		79	100.00	

Table 8 Shows that 1.26% with 1 times frequency received information through SMS, 12.65% w4ith10 times frequency said they receive warning through animal signals, 31.64% with 25 times frequency receive warning through smelling the river, 54.45% with 43 times frequency received warning about flooding through other mediums and 9.19% with 8 times frequency respondents did not respond at all to the question from the study population.

Are there any Benefits Brought about by Flooding?

Variables		Freq.	Percent	Cum.
Yes	1	7	9.21	9.09
No	2	69	90.79	98.70
Total		76	100.00	

Table 9 Shows that 9.21% with 7 times frequency responded yes while 90.79% with 69 times frequency responded No and 12.64% with 11 times frequency respondents did not attempt the question from population of the study.

Measures to Combat Flooding and Displacement in Muye

Variables		Freq.	Percent	Cum.
Proper drainage system	1	3	4.55	4.48
Relocation to a better place	2	18	27.27	31.34
Tree planting/a forestation	3	31	46.97	77.61
Constructing concrete walls at the river to avoid overflowing	4	9	13.63	91.04
Dam construction	6	1	1.51	92.54
Government should empower people on dry season farming	7	4	6.07	98.51
Total		66	100.00	

Table 10 Shows that 4.55% respondents with 3 times frequency suggested construction of proper drainage system, 27.27% with 18 times frequency recommended relocation to a safer place, 46.97% with 31 times frequency suggested planting of trees and forestations, 13.63% with 9 times frequency suggested government intervention by way of constructing concrete walls to overflowing of the river, 1.51% with 1 times frequency recommended dam construction, 6.07% with 4 times frequency suggested government empowerment on dry season farming and 24.13% with 21 times frequency respondents did not attempt the question from the total sample population.

Effect of Floods on Livelihood

Variable	Freq.	Percent	Cum.
Yes 1	75	86.20	85.23
No 2	12	13.80	98.86
Total	87	100.00	

Table 11 Shows that 86.20% with 75 times frequency represent those who responded that flood have affected their livelihoods, while 13.80% with 12 times frequency represent those who said flood does not affect their livelihoods.

Those who have Experienced Displacement by Floods

Variable		Freq.	Percent	Cum.
Yes	1	77	88.50	87.50
No	2	10	11.50	98.86
Total		87	100.00	

Table 12 Shows that 88.50% with 77 times frequency responded yes to the above question, while 11.50% with 10 times frequency responded No

Livelihood activities of the inhabitants

Variables	Freq.	%	Cum.
Farming 1	52	67.54	66.67
Farming/fishing 2	9	11.68	78.21
Teaching 3	1	1.30	79.49
Building/building 4	1	1.30	80.77
Building/bricklaying 5	2	2.60	83.33
Trading 6	2	2.60	85.90
Fishing 7	2	2.60	88.46
Farming/business 8	8	10.38	98.72
Total	77	100.00	

Table 13 Shows that 67.54% with 52 times frequency represent respondents who are farmers, 11.68%with 9 times frequency represent those who combine both farming and fishing, 1.30% with 1 times frequency represent the one who is into teaching, another 1.30% with 1 times frequency who represent the one who combine farming and building, 2.60% with 2 times frequency represent those who are into building and bricklaying, another 2.60% with 2 times frequency represent those that into trading, also again 2.60% with 2 times frequency represent those who are into fishing, while 10.38% with 8 times frequency represent those who are into both farming and business respectively and the suppose11.49% with 10 times frequency of the research population of the respondents did not respond to the question.

Resources Lost Due to Flooding

Variables		Freq.	Percent	Cum.
₦1000 - ₦3,000,000.00	1	30	42.25	41.67
Huge amount/plenty money	2	34	47.90	88.89
None	4	6	8.45	97.22
50 bags of rice	5	1	1.40	98.61
Total		71	100.00	

Table 14 Shows the respondent response as follows, 42.25% with 30 times frequency represent who had experienced lost of resources due to flooding with the estimated cost of between one thousand naira to three million naira only, 47.90% with 34 times frequency this is category of those have lost resources but could estimate how but said huge/plenty money, 8.45% with 6 times frequency represent those who said they have not lost anything to flooding, 1.40% with 1 times frequency represent the respondent who have lost fifty bag of rice and 18.39% with16 times frequency of the research population of the respondents did not attempt the question.

Hectares of Crops Lost Due to Flooding

Variables		Freq.	Percent	Cum.
30 hectares	1	1	1.28	1.28
23 hectares	10	3	3.85	5.13
20 hectares	11	7	8.97	14.10
16 hectares	12	1	1.28	15.38
15 hectares	13	8	10.26	25.64
12 hectares	14	1	1.28	26.92
10 hectares	15	5	6.41	33.33
08 hectares	3	3	3.85	37.18
06 hectares	4	1	1.28	38.46
05 hectares	5	3	3.85	42.31
04 hectares	6	4	5.13	47.44
03 hectares	7	23	29.49	76.92
02 hectares	8	12	15.38	92.31
Less than one hectares	9	5	6.41	98.72
Total		78	100.00	

Table 15 Shows that 1.28%with 1 times frequency represent a loss of 30 hectares of crops, 3.85% with 3 times frequency represent loss of 23 hectares crops, 8.97% with 7 times frequency represent loss of 20 hectares of crops, another 1.28% with 1 times frequency represent a loss of 16 hectares of crops, 10.26% with 8 times frequency represent those who have loss 15 hectares to crops, another 1.28% with 1 times frequency represent a loss of 12 hectares of crops, 6.41% with 5 times frequency represent a loss of 10 hectares of crops, also 3.85% with 3 times frequency represent a loss of 8 hectares of crops, another 1.28% with 1 times frequency represent a loss hectares of crops, another 3.85% with 3 times frequency represent a loss of 6 hectares of crops, 5.13% with 4 times frequency represent a loss of 5 hectares of crops, 29.49% with 23 times frequency represent a loss of 4 hectares of crops, 15.38% with 12 times frequency represent a loss of 3 hectares of crops, 6.41% with 5 times frequency represent a loss of 2 hectares of crops due to floods, and 8.07% with 10 times frequency respondents did not attempt to answer the question.

How much Warnings have you Received before Flooding

Variables		Freq.	Percent	Cum.
Yes	1	27	31.03	30.68
No	2	60	68.97	98.86
Total		87	100.00	

Table 16 Shows that 31.03% with 27 times frequency responded yes while 68.97% with 60 times frequency responded no

Number of Times being Displaced

Variables		Freq.	Percent	Cum.
More than 10 times	1	1	1.31	1.30
10 times	10	5	6.58	7.79
8 times	12	15	19.73	27.27
6 times	2	1	1.31	28.57
5 times	3	3	3.95	32.47
4 times	4	23	30.27	62.34
3 times	5	3	3.95	66.23
2 times	6	18	23.69	89.61
1 times	7	1	1.31	90.91
None	8	4	5.27	96.10
Most of the flooding	9	2	2.63	98.70
Total		76	100.00	

Table 17 Shows that 1.31% with 1 times frequency represent the respondents with more than 10 times experience of displacement on flooding, 6.58% with 5 times frequency are those who have been displaced 10 times, 19.73% with 15 times frequency are those with 8 times displacement experience, another 1.31% with 1 times frequency represent those with 2 times experience, 3.95% with 3 times frequency are those with 3 times experience, 30.27% with 23 times frequency are those that have been displaced 4 times due to floods, 3.95% with 3 times frequency are those with 5 times experience, 23.69% with 18 times frequency are those with 6 times experience, another 1.31% with 1 times frequency are those with 7 times experience, 5.27% with 4 times frequency has one time experience and 2.63% with 2 times frequency represent those that have experience flooding most of the time, while 12.64% with11 times frequency respondents did not respond to the question at all.

6. Discussion of the Major Findings

Presentation of the findings from the data gathered during the study shows that, backflow effects, heavy rainfall, were the major nature in which flooding took place in Muye town. The impact of flooding disaster on the security of lives and properties was influenced by the vulnerability, mainly the root causes which drives people to live in unsafe conditions, is some economic benefits, as most of the inhabitants are into peasant farming and fishing activities due the fertility of the land. Thus, the effects of floods have always been disastrous. The research further proved that flooding affects the people negatively. Only few positives were discovered. The people in the town proposed measures that could be put in place to reduce the negative impacts of floods.

Furthermore, it was discovered that there are more than thirty communities which are always the worst hit during flooding more than muye that require urgent attention and intervention from all quarters. However the people might notice through some early warning signs or signal mostly from animals but has no capacity to forecast flash floods hence there is no official early warning. These flash floods cannot be dictated, mainly because of the time factor.

7. Summary and Conclusion

Given this background, there is the urge to avert such crisis. There is much that information and communication technologies can contribute to the lessening of risk of flooding disaster. ICTs enable the linking of the physical world within which hazards occur and the symbolic worlds of the humans likely to be harmed by those hazards, so that they may take life-saving action. But effective linking of these worlds requires not only the use of ICTs, but also the existence of institutions that allow for the effective mobilization of their potential. On the whole, despite floods being experienced yearly evidence showed that the level of disaster preparedness in terms of proper utilization of the early warning signals to reduce the risk of flooding in this part of the country is still very low, like other developing countries facing political, economic, cultural, financial, geographical and technological challenges in terms of managing disaster situations. There is need for NGOs and other private organizations to cheap in and help in the areas prone to flooding to come up with flood management system, even though they have learnt and adjusted to living with floods over the years.

8. Recommendations

The study recommended a number of measures to the local communities, local and national government, private sector, NGOs as well as the media service providers and even students. These recommendations may help improve the application of effective flood risk reduction strategies and management. The media such as community radios and local newspapers can also be incorporated as they help in improving the disaster consciousness of the general population and in disseminating early warnings.

Thus the government should assist and empower community structures such as community radio stations or community information centers where people can get an update on what is happening in their local environments. There is also need to improve the road network in the area. There is also need to improve on accessibility to proper communications.

Responsible authorities should ensure that donations from volunteer groups reach the desired population. This can be achieved by giving these groups direct access to the victims and not passing through government storehouses where they could be redirected for other uses. Resource distribution by governmental organizations should be done according to the needs of the affected population and not on the same scale level as affected areas.

The community should be encouraged to use their own Indigenous Knowledge to try and reduce negative impacts of floods on livelihoods. From the findings a higher percentage of the populations rely only on crop farming. However, the government and non-governmental should encourage and sponsor the people to diversify and venture into other livelihood activities such as small businesses.

Flood control strategies should be regularly updated by the different tiers of government. There is a need to utilize multiple methods of warning. The warning methods that could be selected in future could include voicemail, automated direct phone calls, radio, town crier and also gauge and alert systems.

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Management Control and Institutional Service Quality in Nigeria Police Force and Nigeria Customs Service

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Abstract. Law enforcement agencies are designed to secure lives and properties of the citizenry and to attain this, strategies are put in place to compare performance with predetermined standards and objectives. However, the mechanisms for management control seem ineffective and have contributed to importation of contra ban products and fire arms that has contributed to insecurity in Nigeria. Therefore, this study examined the effect of management control on institutional service quality in the operations of Nigeria Police Force and Nigeria Customs Service as law enforcement agencies in Nigeria. A mixed research design was adopted with a population of 131,280 personnel of the NPF and NCS. A sample size of 654 was computed through Krejcie and Morgan sample-size determination formula. The study adopted the stratified random sampling to select the officers and men of the NPF and NCS in Abuja and Lagos command units from three management cadres. Validated questionnaire and interview were instruments for data collection. Descriptive and inferential statistics were employed in analysis of data. The study found that management control has significant effect on service quality of NPF and NCS (Adj. R^2 = 0.373, $F_{(1, 515)}$ = 308.106, p= 0.000). Over-centralised management system of both agencies with Powers clearly concentrated in Abuja serves as impediment to service quality in the two agencies. The study recommended that the management of the NPF and NCS should institute effective management control mechanisms that is transparent and impartial to swiftly check its personnel excesses regardless of cadre in the agencies.

Keywords: Management Control, Institution, Service Quality, Police Force, Customs Service.

1. Introduction

The essence of management control in governmental institutions and agencies especially the law enforcement agencies is to adopt sets of procedure that monitor its activities, have mechanisms for mitigation of unethical behaviour, identify changes in the internal and external environment, promote accountability, adjustment of work protocol, upheld ethical values, ensure due process and structure that spells out all the responsibilities of different department or units of the institution. This is to attain predetermined objectives. However, when the goal are not determined, management control facilitate the platform for further decision making to achieve the expected end.

A performance index focusing on Customs service performance globally put the NCS in a position far below many countries in Sub-Sahara Africa (World Bank, 2018). This is despite having the biggest economy in Africa. The NCS responses to President Buhari's mandate on land border closure is another cause for concern. Despite this border closure, foreign goods, mostly rice and used cloths *akube*, still found their way into the Nigerian market. Also, the NCS 2019 report stressed the need for a conducive working environment for its Officers and men to improve performance. In addition, Adaku (2021) pointed out that despite the claims by the Comptroller General of the NCS early 2021 regarding the functional scanners availability to end the laborious manual inspection and curb systematic smuggling, the status quo remained. This operational inefficiency according to the Deputy National President, Air Logistics, National Association of Government Approved

Freight Forwarders (NAGAFF) cost the country N800 billion monthly and N9.6 trillion yearly. This revenue loss reinforces the negative ripple effect of NCS inefficiency to the nation.

On the other hand, The Nigeria Police Force response to the inter-state border lockdown in the wake of the COVID-19 pandemic equally leaves less desired. This is because despite the known multiplier effect of non-compliant to the COVID-19 guidelines, non-essential goods, including humans, still found ways to travel from one State to the other unabated. Also, some high-profile criminals escape from police custody, for example, the alleged serial killer in Ibadan who escape police custody to kill another innocent citizen in the Akinyele area of Ibadan Oyo State (Omonobi, Ajayi, & Badru, 2020). Also, the Federal Bureau of Investigation (FBI) in the United States, as indicted Nigeria's deputy commissioner of police; a celebrated police chief Mr. Abba Kyari as one of the co-conspirators in a multi-million-dollar fraud perpetrated by Ramon 'Hushpuppi' Abass, a notorious Nigerian fraudster (Arogbonlo, 2021). This is a huge embarrassment and a setback for NPF and the anti-corruption campaign of the President Buhari-led administration. In addition to NPF inefficiency, the unguided, unethical, and unlawful practices of the Special Anti-Robbery Squad (SARS) allegedly killed, incapacitated, and robbed innocent citizens for personal gains.

The government of Lagos State, the federal government, private businesses, and innocent citizens have incurred irreparable losses due to the campaign to end this police brutality. Also, a fallout of the #ENDSARS protest required each State in Nigeria to set up judicial panels to investigate legitimate cases of Police brutality and violation of citizen's human rights. Unfortunately, barely a few weeks into the panel's investigation, the NPF sort the court's powers to nullify the mandate given to the judicial panel by the presidency that the panel does not have the constitutional right to investigate police affairs. More embarrassing is that the Inspector General of Police claimed ignorance of the development and vow to prosecute whoever is responsible. These multiple events in the NPF only show gross ineptitude in the police system in Nigeria and beg for sanity in this law enforcement agency. The indicators to measure service quality in this study include; the agencies prompt response to the need of the public, confidence to the public that services rendered are performed adequately, needed facilities that guaranty excellent service delivery, a sense of care and understanding of public needs and ability of the law enforcement agencies to consistently provide services that enhance positive public experiences. Consequently, the objective of the study is to examine the effect of management control on institutional service quality of Nigeria Police Force and Nigeria Customs Service as law enforcement agencies in Nigeria. The hypothesis formulated for testing is that: there is no significant effect of management control on service quality of Nigeria Police Force and Nigeria Customs Service as law enforcement agencies.

2. Literature Review

2.1 Management Control

Management control is a term used to describe the process used by organizations to control the formulation and implementation of strategic plans (Ondoro, 2017). The need for the control measure is to guide the operators not to deviate at the stage of implementation. According to Verburg et al. (2018), management control includes monitoring and evaluation of organizational activities; it encompasses the specification of organizational standards for aligning the actions of employees with the goals of the organization, as well as the monitoring and rewarding of the extent to which such standards are met.

Wheelen and Hunger (2015) define management control as the process used by firms to control the formation and execution of strategic plans. In this context, management control mechanism is not limited to the stage of implementation but also play out at the formative stage of strategic plan. To Deschamps (2019), monitoring and evaluation are often described as systems that align organizational behaviors with goals and strategies. The unique aspect of this is that management control encompasses formation and implementation of strategic plan and that such monitoring may include evaluation so as form the basis for further action, especially decision making to address whatever shortcomings that were observed as impediment to organizational goals.

Management control is defined in this study as strategic control mechanism used by management to ensure that a strategic plan is implemented within the acceptable time frame. These elements imply an active involvement of senior managers in determining the strategic activities pursued by the organization. Monitoring helps organizations assess the quality of performance over time and

determine the efficiency of its controls (Mahadeen, Al-Dmour, Obeidat, & Tarhini, 2016). More so, it preserves resources against loss due to waste by ensuring adherence to laws/regulations/ contracts and management directives, ensure that employees are provided with information on relevant performance standards, correcting deviant behavior, and stimulating effective performance. Inadequate monitoring and evaluation activities lead to a waste of economic resources and an increase in the cost of strategy execution which the organization may not have budgeted for (Deschamps, 2019). In order to preserve and utilize the resources of government and the two agencies under investigation, it becomes pertinent to ensure that resources such as finance, material and human resources are adequately utilized within the expected time.

2.2 Service Quality

The debate on service quality revolves mainly around two competing perspectives: the Nordic (Scandinavian or European) and the American schools. The Nordic school defines service quality using broad categorical terms that include technical- and functional quality aspects. On the other hand, the American school uses descriptive terms and includes, among other things, the five dimensions of reliability, responsiveness, assurance, empathy, and tangibles (Pollack, 2009).

Service quality is defined as a post-consumption assessment of services by customers or consumers (Holdford & Reinders, 2001). It then means that to ascertain the level of satisfaction of services rendered by an organization, a clientele must have patronized such an institution. Service quality is an assessment of how well a delivered service conforms to the client's expectations. Service quality means the ability of a service provider to satisfy a customer in an efficient manner through which he can better the performance of the business (Ramya, Kowsalya & Dharanipriya, 2019). The idea here is that service quality is a determinant factor to retain a clientele. It is based on meeting the expectations of the customer and with the assurances that the organization will not deviate from the good image it has in delivering the best service. In this study, service quality is the feeling of satisfaction in the performance of services delivered by Nigeria Police Force and Nigeria Customs Service as law enforcement agencies. To be consistent in delivering quality service, there must be a supervisory role by the management of the law enforcement agencies to maintain discipline and ethical conduct in the discharge of duties.

2.3 Ability-Motivation-Opportunity Theory

The theory adopted in this study is Ability-Motivation-Opportunity Theory (AMOT). One of the assumptions was to facilitate high-performance work system in organizations. The theory was propounded by Bailey in 1993 and suggested that the desire for the employee to contribute significantly to institutional performance is a direct correlate of three components: one, that the institution engages employees that possess necessary skills. Secondly, the institution motivated the employees systematically. Thirdly, the institution must provide an enabling environment for the employees to grow and participate in its affairs (Appelbaum, Bailey, Berg, and Kalleberg, 2000).

The AMO stands for the three psychological elements that enhance employee performance: individual ability (A), motivation (M), and the opportunity to participate (O) (Claudia, 2015; Knies & Leisink, 2014; Kroon, Van De Voorde & Timmers, 2013; Marin-Garcia & Tomas 2016; Munteanu, 2014). According to the model, people perform well when they have the requisite capabilities to perform their job, are adequately motivated, and their work environment provides opportunities to participate (Marín-García, Miralles, Garcia-Sabater & Perello-Marin, 2011; Marin-Garcia & Tomas, 2016).

This study adopts the AMOT to position the management control on service quality of officers and men of NCS and NPF. This is because the AMOT offers a theoretical explanation on why it is needed to put measures or mechanisms in place to monitor the activities of law enforcement agencies and encourage them to maintain ethical conducts and follow due process in order to achieve the expected goals in service delivery.

Although many authors have considered the AMOT a valuable tool for attaining a high-performance work system (Paka, Kooija, De-Lange, & Van-Veldhovena, 2018; Tay, Tan & Yahya, 2017), nevertheless, scholars have criticized the over-simplistic nature of the assumptions of AMOT in achieving superior institutional performance.

3. Methodology

A mixed-methods research design was adopted for the study. The population was 131,280 personnel of the NPF and NCS. A sample size of 654 was computed through Krejcie and Morgan sample-size determination formula. The study adopted the stratified random sampling to select the officers and men of the NPF and NCS in Abuja and Lagos command units from three management cadres. Validated questionnaire and interview guide were the instruments for data collection. The response rate was 79.1%. Quantitative data were analysed and presented through descriptive and linear regression, while qualitative data were content analysed.

3.1 Data Presentation and Discussion of Findings

The presentation of the results is in descriptive analysis. In this case, the independent variable (Management Control) is analyzed against the dependent variable (Service Quality). The purpose of this study was to determine the effect of management control on institutional service quality of Nigeria Police Force and Nigeria Customs Service as law enforcement agencies in Nigeria. The last part of this section presents the test of the hypothesis. It indicates how the hypothesis was tested.

Restatement of Research Objective

Objective: Identify the effect of management control on institutional service quality of NPF and NCS as law enforcement agencies in Nigeria.

Table 1: Descriptive Statistics on Respondents Responses on management control of NPF and NCS.

Management Control	VHE	HE	LE	VLE	Mean
Adopt sets of procedure that monitor its activities	221 (42.7%)	228 (44.1%)	48 (9.3%)	20 (3.9%)	3.26
Have in place mechanisms for mitigation unethical behaviour	123 (23.8%)	222 (42.9%)	159 (30.8%)	13 (2.5%)	2.88
Identify changes in the internal environment	150 (29.0%)	229 (44.3%)	110 (21.3%)	28 (5.4%)	2.97
Identify changes in the external environment	145 (28.0%)	206 (39.8%)	132 (25.5%)	34 (6.6%)	2.89
Make officers accountable for their actions	256 (49.5%)	193 (37.3%)	61 (11.8%)	7 (1.4%)	3.35
Engage officer in the definitions and adjustments of work protocol	214 (41.4%)	192 (37.1%)	70 (13.5%)	41 (7.9%)	3.12
Upheld ethical values in all management decisions	200 (38.7%)	193 (37.3%)	111 (21.5%)	13 (2.5%)	3.12
Have in place a system that ensure due process is followed in the discharge of duties within the agency	193 (37.3%)	207 (40.0%)	62 (12.0%)	55 (10.6%)	3.04
The agency has in place a structure that spells out all the responsibilities of each unit	269 (52.0%)	151 (29.2%)	76 (14.7%)	21 (4.1%)	3.29
Weighted Mean					**2.76**

Source: Field Survey Results (2022)

According to results in Table 1 above, the respondents indicated that the two agencies adopt sets of procedures that monitor its activities with a mean score of 3.26. That they have in place mechanisms for mitigation unethical behaviour had a mean of 2.88, which is a little above average. That they identify changes in the internal environment has a mean of 2.97. That they identify changes in the external environment has a mean of 2.89. That they make officers accountable for their actions has a mean of 3.35. That they engage officer in the definitions and adjustments of work protocol has a mean of 3.12. That they uphold ethical values in all management decisions has a mean of 3.12. That they have in place a system that ensures due process is followed in the discharge of duties within the agency has a mean of 3.04. That the agencies have in place a structure that spells out all the responsibilities of each unit has a mean of 3.29. The weighted mean score for the Management control of the two law enforcement agencies is 2.76, which is weak on a score of 5.0

Table 2: Descriptive Statistics on Respondents Responses on Institutional service quality of NPF and NCS

Service Quality	SA	A	D	SD	Mean
The agency promptly provide services that respond to the needs of the public	318 (61.5%)	144 (27.9%)	48 (9.3%)	7 (1.4%)	3.50
The agency provides confidence to the public that services rendered will be performed adequately	275 (53.2%)	214 (41.4%)	21 (4.1%)	7 (1.4%)	3.46
The agency possesses facilities-personnel that guaranty excellent service delivery	234 (45.3%)	179 (34.6%)	77 (14.9%)	27 (5.2%)	3.20
The agency possesses a sense of care and understanding about public needs	234 (45.3%)	228 (44.1%)	27 (5.2%)	28 (5.4%)	3.29
The agency consistently provides services dependably that enhance positive public experience	194 (37.5%)	213 (41.2%)	89 (17.2%)	21 (4.1%)	3.12
Weighted Mean					3.31

Source: Field Survey (2022)

According to results in Table 2 above, on average, the respondents indicated that the agencies promptly provide services that respond to the needs of the public had a mean of 3.50. That the agencies provide confidence to the public that services rendered will be performed adequately has a mean of 3.46. That the agencies possess facilities-personnel that guarantee excellent service delivery had a mean of 3.20. That the agency possesses a sense of care and understanding about public needs had a mean of 3.29. That the agencies consistently provide services dependably that enhance positive public experience had a mean of 3.12. Institutional service quality of the two agencies had a weighted mean of 3.31.

To substantiate the effect management control have on institutional service quality, a hypothesis was formulated and analyzed using simple linear regression analysis as an example of inferential statistics.

Restatement of Hypothesis

H_{01}: The is no significant effect of management control on service quality of NPF and NCS as law enforcement agencies in Nigeria.

Table 3a-c: Regression Result of the influence of management control on service quality of NPF and NCS as law enforcement agencies in Nigeria.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.612[a]	.374	.373	.49874

a. Predictors: (Constant), ManagementControl

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	76.639	1	76.639	308.106	.000[b]
	Residual	128.102	515	.249		
	Total	204.741	516			

a. Dependent Variable: ServiceQuality

b. Predictors: (Constant), ManagementControl

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.192	.123		9.704	.000
	ManagementControl	.684	.039	.612	17.553	.000

a. Dependent Variable: Service Quality

Source: Field Survey Results (2022)

Table 3a-c presents the results of the regression analysis for the effect of management control on service quality of selected law enforcement agencies in Nigeria. Table 3a presents a model summary which establishes how the model equation fits into the data. The R^2 was used to establish the predictive power of the study's model. From the results, management control has reasonable strong and significant relationship with service quality of selected law enforcement agencies in Nigeria ($R = 0.612$, $p<0.05$). The coefficient of determination (R^2) of 0.374 shows that management control explained 37.4% of the changes in service quality while the remaining 32.6% variation in management control is explained by external variables different from those considered in this study. This result suggests that management control influence 37.4% of service quality of selected law enforcement agencies in Nigeria. Table 3b presents the results of ANOVA (overall model significance) of regression test which revealed that the management control has a significant influence on service quality of selected law enforcement agencies in Nigeria. This can be explained by the F-value (308.106) and $p=0.000$ which is statistically significant at 95% confidence interval. Furthermore, the results of regression coefficients in table 3c, revealed that at 95% confidence level, a unit change in management

control will lead to a 0.684 increase in service quality of selected law enforcement agencies in Nigeria, given that all other factors are held constant. On the strength of this result (R^2 = 0.374, F(1,515)= 308.106, p= 0.000), this study reject the null hypothesis one ($H_0$1) which state that management control has no significant effect on service quality of selected law enforcement agencies in Nigeria.

Considering the research question on how administrative management control affect service quality of selected law enforcement agencies in Nigeria, 84% of the Respondents opined that administrative management control affects NPF and NCS service delivery. However, the over centralized system of both agencies with powers clearly concentrated in the Abuja meant responsiveness to issues at the three (3) Federating Units, Local Government, State and Federal is affected. Majority of the respondents pointed out that security and Policing is supposed to be from the local before getting to the top. Police powers with effective checks should be delegated to the three (3) Federating Units of Local Government, State and Federal

4. Discussion of Findings

The finding of the linear regression revealed that management control has significant effect on service quality of the two law enforcement agencies in Nigeria. The findings of this study are in line with several empirical studies. For instance, it corroborated the study of El-Taliawi and Van Der Wal (2019), which emphasizes the need for management control within the context of administrative capacity and that the idea is to ensure that resources meant for organizational and government objectives are not abused or mismanaged. Similarly, in a meta-analysis conducted by Sihag and Rijsdijk (2019), the scholar established that management control is a critical success factor for different institutional performance outcomes. This is not far from the findings of Ilias, Abdulatiff, and Mohamed (2016) who averred that external control and formal internal control were significantly associated with all three performance dimensions which include financial, service quality, and procedural. Also, the findings in this study agree with Onodoro (2017) submission on the relevance of management control to operational efficiency and effective service delivery. Other studies on this submission line regarding management control and performance linkage include; Mahadeen, Al-Dmour, Obeidat, and Tarhini (2016) and Bukh and Svanholt (2020).

In addition to the quantitative analysis done, the qualitative data gathered through interview concerning how management control affect service quality of selected law enforcement agencies in Nigeria presented a unique perspective that align with the quantitative findings of weak significant effect of management control on service quality. Most of the interviewees (84%) stated that administrative management control affects NPF and NCS service delivery. However, the over-centralised system of both agencies with Powers clearly concentrated in the Abuja meant responsiveness to issues at the three (3) Federating Units, Local Government, State and Federal is affected. Majority of the respondents pointed out that security and Policing is supposed to be from the local before getting to the top. Most of the officers interviewed expressed the view that Management control should be devolved to the sub-national level for effective checks on officers to enhance service quality across board.

5. Concluding Remarks

Management control has significant effect on the service quality in the NPF AND NCS however, on the strength of the effect, revealed a weak contribution to service quality. The over-centralised command nature of the two agencies impedes delivery of quality services by personnel of both agencies. It is imperative for the management of the NPF and NCS to institute effective management control mechanisms that can swiftly check its personnel excesses regardless of cadre in the agencies. Issues of transparency and impartiality are key regarding the implementation of management control.

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A Critical Analysis of Insurgency, Reconstruction and Rehabilitation in the North-East of Nigeria

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Abstract. This study gives a critical analysis of insurgency, reconstruction and rehabilitation efforts in the North-East of Nigeria. The study was to understand the types of insurgent activities taking place in the North-East, to have a clear understanding of the modules for reconstruction in the North-East, to assess how the insurgents are rehabilitated and to understand at what extent the civilians in the North-East are rehabilitated. This research adopted the qualitative research design. Specifically, the study used *a qualitative content analysis research design.* The population of the study is the state in the North-East Geo-political zone of Nigeria. Therefore, the study relied on data from books, records, biographies, newspapers, published censuses or other statistical data, data archives, internet articles, research articles by other researchers (journals), and databases. It is hence analysed by using content analysis, this is one of the most common methods to analyse qualitative data. From the critical analysis of literature related to reconstruction and rehabilitation in the North-East, it was discovered among others that returning the region to normalcy will also require a clear funding strategy, strong and accountable Governance and Institutional Frameworks, a rigorous Monitoring & Evaluation Framework and an effective Communication Strategy. It was also discovered that some of the Internally Displaced Persons (IDPs) in the North-East Nigeria have not been rehabilitated into their various communities till date and also some of the reconstructions of the social amenities have not yet properly started. This study recommended among others that IDPs taking refuge in camps scattered across the country should be returned back to their communities and rehabilitated by the Nigerian authority to give them a new face of life to start all over again instead of leaving them stay put to continue suffering for food and infrastructural shortages in the various camps across the nation.

Keywords: Insurgency, Reconstruction, Rehabilitation, North Eastern Nigeria

1. Introduction

Since the return of civil rule in 1999, Nigeria has been experiencing a rising spectre of violence and insecurity bordering on natural resources (mis) management and control, citizenship question, electoral contest, religious and ethnic polarisation, and the current ferocious Islamist insurgency. To be sure, Nigeria is a country of cyclical crisis the history, dynamics and challenges of its development are deeply rooted in tension, conflicts, instability and insecurity (Abdu, 2013). The Nigerian nation-state has never enjoyed an appreciable period of stability that could guarantee security and sustainable development. Each phase of Nigeria's political history is punctuated by different security challenges - military coups, electoral violence, religious disturbances, militancy and banditry.

In northern Nigeria in particular, poverty, class interest and manipulations in the context of the struggle for the control of state power and resources associated with it have resulted in violent conflicts of different degrees and proportion (Abdu, 2010). The region has continued to experience conflicts, ranging from small-scale communal and ethno-religious violence to high-intensity insurgency of the Maitatsine in 1980s and Boko Haram in recent years. In the last three decades, northern Nigeria has been a major epicentre of violence (Adagba, Ugwu, and Eme, 2012).

The condition in the North-East continues to deteriorate and escalate to other parts of the country (Gadzama, 2019). It is within this national and regional security context that the situation in the North-East can be better explained. While it is possible to isolate the North-East for anal ysis, it is important to understand that the governance, which includes reconstruction, rehabilitation and security situation in the North-East, is not independent of the broader situation in Nigeria (ONSA, 2015).

Therefore, restoring and enhancing peace, stability, and social cohesion constitutes the backbone of overall recovery efforts, and builds the foundation for the effective and smooth implementation of all programme interventions. The objective of this area of intervention is to assess and then address impacts of the conflict on the social fabric, as well as on local governance and provision of justice, with particular attention to the effects on IDPs and host communities. Effective responses to these challenges will provide the social and political environment for sustainable recovery and longer-term development. Given the foregoing, the need for reconstruction and rehabilitation in the North-East is pertinent.

It is noteworthy that, the process of reconstruction involves partial or complete relocation and rebuilding the essential physical infrastructure and shelter (house) so that vulnerability levels are reduced and families are able to get back to their feet. Reconstruction therefore paves the way for long term rehabilitation.

Rehabilitation then looks at a more long-term input of reinstating lost livelihoods, introducing new economic opportunities, improving land and water management processes so as to reduce people's vulnerability and enhance capacities to handle future calamities (Ibrahim, 2013). To buttress this point further, rehabilitation primarily addresses the new or increased poverty levels that have emerged due to the disaster. Jobs and income generation measures in the construction sector provide an immediate and emergency boost to the local economy. This is followed by long term improvement in land and water management and economic opportunities that seek to upgrade local economies and reduce community vulnerability in a sustainable manner. For the process of sustainable development to take off in continuation with reconstruction, it is important that the end objective is not limited to only getting people back up to the base line levels prior to the insurgency (Ogundiya, 2010).

2. Conceptualizing Insurgency

The term, insurgency, has been seen in different ways. Three of its definitions are important in this study. There is the political conception of the term. The U.S. government defines insurgency as "the organized use of subversion and violence to seize, nullify, or challenge political control of a region'' (Imobighe, 2010). From the international legal perspective, insurgency is seen as a rebellion, carried out by rebels, who are not recognised as belligerents, against a constituted authority or state that has been recognized by the United Nations (Duru, 2012). Based on this analysis of professional military and security literature, where the term, insurgency, is mentioned, there is the inclination to see insurgency as any guerrilla, terrorist, militant, revolutionary, or any other form of irregular warfare that does not follow the rules, laws, and conventions of war and is usually carried out against a state (Adeniyi, 2013). This is the military conception of insurgency. In dealing with issues of insurgency in this study, the researcher would be doing so from its military and security conception. In general, and irrespective of its goals, every insurgency adopts any one or more of the methods of warfare or violence.

Another characteristic underlying insurgency is that it is usually the product of asymmetric conflict, where, ab initio, one party has an overwhelming and incontestable physical force and other instruments of power over the other. In such situations the people on the weaker side of the conflict fight like desperadoes to be on the favourable side of the conflict. This means that insurgents are insurgents, not by their choice, but by their intrinsic and predetermined incapacity and disadvantage (Ibiang, 2016).

By pernicious, protracted, and dynamic armed struggle in which frontal engagements with the superior forces of the adversary are avoided, insurgents try to effect radical political, social, religious, and economic change or achieve territorial and resource control as well as seek greater accommodation within the state. Broadly speaking insurgency is that armed movement or struggle seeking to overthrow an existing government using a variety of violent and non-violent tactics that include drawing support and sympathy from acquiescent population in a weak state fractured along ethnic and sectarian cleavages (Mackinlay, 2012). The consequence is that, insurgents' step into the vacuum created by the legitimacy deficits to offer a radical alternative. Insurgency on the basis of motivation, capability and modus operandi could be driven by greed and grievances. To these scholars, insurgency is rooted from local grievances and political failings.

In their perspective, Fearon and Laitin (2001) described insurgency as a technology of military conflict characterized by small, lightly armed bandits practicing guerrilla warfare from rural base areas. According to Gompert and Gordon (2008) insurgencies traditionally, seeks to overthrow an existing order with one that is commensurate with their political, economic and ideological goals. Insurgency is "an organized rebellion aimed at

overthrowing a constituted government through subversion and armed conflict" (Abolurin, 2011).

2.1 Types of Insurgency

Insurgencies can be categorized in a number of ways; two of the most common ways are to distinguish insurgencies by their goals or by the primary method they employ. These categories are archetypes. However, many insurgencies exhibit characteristics combining multiple types, or their goals may evolve during the course of the conflict. In some conflicts, multiple insurgent groups may operate simultaneously, either competing with one another or setting aside the fact that they may have differing views on post conflict governance to form temporary alliances against the government. Moreover, the motivations of individual fighters may differ from that of the group in general, giving the insurgency a more chaotic, less unified quality. Weigand (2017) put forward the goals of an insurgency most often falls into one of five categories.
Revolutionary insurgencies seek to replace the existing political order with an entirely different system, often entailing transformation of the economic and social structures.

Reformist insurgencies do not aim to change the existing political order but, instead, seek to compel the government to alter its policies or undertake political, economic, or social reforms.
Separatist insurgencies seek independence for a specific region. In some cases, the region in question spans existing national boundaries.

Resistance insurgencies seek to compel an occupying power to withdraw from a given territory.
Commercialist insurgencies are motivated by the acquisition of wealth or material resources; political power is simply a tool for seizing and controlling access to the wealth.

Allswell, (2014), reiterated that another way of categorizing insurgencies is to focus on their organizational structure and whether the insurgents stress the political or military aspects of their struggle. Insurgents, of course, may adjust their organization during the course of a conflict.

(i) Politically organized insurgencies develop a complex political structure before or at the same time they begin undertaking military operations against the government. These groups stress consolidating control of territory through the use of shadow governments rather than through military power. The military component of politically organized insurgencies is subordinate to the political structure.

(ii) Militarily organized insurgencies emphasize military action against the government over political mobilization of the population. The insurgents calculate that military success and the resulting weakening of the government will cause the population to rally to the insurgents' cause. Militarily organized insurgencies begin with small, weak, ill-defined political structures, often dominated by military leaders.

(iii) Traditionally organized insurgencies draw on pre-existing tribal, clan, ethnic, or religious affiliations. Established social hierarchies-a system of chiefs and sub chiefs, for example often substitute for political and military structures in traditionally organized insurgencies.

(iv) Urban-cellular insurgencies develop and are cantered in urban areas. These insurgencies lack hierarchical political and military leadership structures, instead organizing around small, semi-autonomous cells. Urban-cellular insurgencies generally rely more heavily on terrorism than do other types of insurgency. Their cellular structure and reliance on terrorism can limit their ability to mobilize popular support.

3. The Nexus between Insurgency, Reconstruction and Rehabilitation

Aside the human cost in the Boko Haram insurgency, the atrocities of the sect have socioeconomic implications, especially in the northeast where Boko Haram has dominance. The economic, social and psychological costs of the insurgency cannot be quantified. Commercial activities in the northeast have been reduced because of the unprecedented attacks by the sect. Banks, markets and shops do not open regularly due to the fear of the coordinated attacks from Boko Haram. According to Okereocha (2012) human capital and investors drain is hampering economic development in the northeast this is due to the attacks on banks, markets, parks and government departments. The attacks on these commercial areas have led to the migration of people to other parts of the country.

Aside the migration of people who have business in the northeast to other parts of Nigeria, foreign nationals of Chad, Cameroun and Niger are being repatriated to their home countries for what the government of Nigeria said they constitute as the members of Boko Haram. Evidence has shown that not all the repatriated nationals of the above countries are members of Boko Haram (Aduloju, Opanike, and Adenipekun, 2014).

Ovaga (n.d) asserts that under this situation, the economy of the northeast will seriously be affected if foreign citizens who contribute large quota to the development of the northeast vis a vis their economic activities are sent back to their countries of origin. The never-ending attacks by Boko Haram in Borno, Yobe and Adamawa States have a severe impact on the economic lives of people living in these areas. A case in point is that the working duration of most commercial banks in the affected areas hit by Boko Haram bombings has been reduced from eight hours to three hours (Mohammed, 2012).
"In Maiduguri, Borno State, where the sect originated, the frequent bombings and clashes between Boko Haram and the security agents have weighed down seriously on the commercial and businesses activities in the city as many businesses have reportedly crumbled while many people have fled the state" (Okereocha ,2012). There is already a dichotomy in the north and south development in Nigeria. The poverty profile released by the National Bureau of Statistics (BDN) 2012 illustrates that there is the prevalence of poverty in the north as compared to the south. The Business Day newspaper predicted if the insecurity situation continues development in the northern part will remain static and the gap between the north and south will broaden further (BDN, 2012).

There has been an urgent need to reintegrate the victims of displacement, as well as the victims of the insurgency and some former members of Boko Haram. As has been noted earlier these necessitated efforts by the Nigerian government and non-governmental actors to engage in the on-going reintegration of victims into society. The large numbers of unemployed youth provide ready foot soldiers to the insurgents; hence the government has to ensure the provision of employment opportunities for these youth (Alfred, 2016). It is the assertion of this study that once the government is able to block all avenues for the future recruitment of unsuspecting youth into this notorious group, and necessary education and employment are provided, the role of the military will be minimised (Busari, Hanna, and Karimi, 2016).

4. Theoretical Framework

This study is anchored on Frustration-Aggression (F-A) Hypothesis, commonly called the Frustration-Aggression (F-A) Theory, is a seminal theory in Psychology which has been used several times in other fields of study to explain aggressive human behaviour. Central to the Frustration-Aggression theory is the tenet that there is a causal relationship between frustration and aggression. This conviction of a nexus between frustration and aggression was first held by a group of Yale University psychologists, John Dollard, Leonard W. Doob, Neal E. Miller, Orval H. Mowrer and, Robert R Sears in their co-authored monograph: Frustration and Aggression (1939).

The theory was later revised by Neal E. Miller (1941) and Leonard Berkowitz (1969). Frustration to the Yale group is "an interference with the occurrence of an instigated goal-response at its proper time in the behaviour sequence". In other words, it is a situation where the attainment of a desired goal of a person or group of people is hindered. Succinctly, aggression is a "sequence of behaviour, the goal-response to which is the injury of the person toward whom it is directed" (Walker, 2012).

On insurgency, the Frustration-Aggression Theory gives an understanding that the spike in the terrorist attacks on education and the North-Eastern region of Nigeria is as a result of the frustration of the inability to achieve their personal goals: putting an end to Western education, foisting their personal Islamic religion on the people, unemployment and impoverishment of the locals (Gilbert, 2014).

Since the goal of being gainfully employed to meet basic human needs and lead a decent life, foist a personal type of religion on the people in the country and putting an end to Western education has been hampered over time, the locals have taken out their frustration aggressively on the citizenry and government institutions whom they claim are blocking their chances. While the Frustration-Aggression Theory lenses can only make the user see frustration as the root cause of the aggressive behaviour of the insurgents in the North East, Nigeria.

The theory assumed that, insurgence is manifested out of frustration on account of national political, religious and economic system. The theory properly created the analogy used within this research to explain the dynamics of insurgency. Frustration-aggression theory emphasizes the difference between

what people feel they want and the discrepancy however, marginal, between what is sought and what they get, the greater the violent reaction. In the face of these frustrated expectations, a group is most vulnerable to embark on violent destructive behaviour or be a ready army to be used to cause crisis (Berkwizt, 1963).

Central to this explanation is that aggression is the natural outcome of frustration. In a situation where the legitimate desires of an individual or group is denied either directly or by the indirect consequence of the way a society is structured, the feeling of frustration can compel such persons or group to express their anger through violence that is directed at those perceived to be responsible for their misfortune or others who are indirectly related to those frustrating their expectations. To these theorists, much terrorist behaviour is a response to frustration of various political, economic and personal needs or objectives. Frustration and alienation drive many to join "self-help" ethnic, religious, community or civic groups, some of which are hostile to the Nigerian state (ICG, 2014).
A terrorist act is frequently intended to elicit a response that will demonstrate the terrorist legitimate aspirations. According to Ogege, (2013), terrorism is caused by frustrated expectations and state of hopeless and sustained mainly by bad governance, corruption and pervasively weak institutional framework. Frustrations, lack of income and unemployment have prompted the youths in the northern Nigeria to become foot soldiers of Boko Haram.

The speculation became severely criticized on the grounds of theoretical stress and overgeneralization, restricting the scope of the speculation to establish its validity. For instance**,** the initial hypothesis failed to differentiate different forms of aggression, wherein the actor's goal is to inflict damage and instrumental styles of aggression, in which aggression is clearly mean to acquire other goals (which include manipulation or domination). This grievance can be dealt with as an alternative of confining the frustration-aggression speculation to instances of hostile aggression alone (Walker, 2012).

Critics additionally challenged the premise that any interference with on-going aim-directed behaviour would evoke frustration. According to the American psychologist Abraham Maslow and others, valid (or justified), interventions do not necessarily produce frustration. Only styles of interference that appear illegitimate (or arbitrary or in any other case unjustified), they argued, should result in frustration **(**Williams et al, 2012)**.**

5. Gaps in Literature

Over the decades, frustration–aggression theory has consistently been used in both basic and applied research despite several major shifts in aggression theories from a focus on biological drive to learned responses and environment–behaviour contingencies. When the strict behaviourist view was challenged in what has come to be known as the cognitive revolution-which led to a (re)discovery of cognitive antecedents of aggression and accompanying mental processes, such as aggressive intent, susceptibility to aggressive thinking, inclinations toward violence, hostile perception and attribution, and expectations regarding the outcome of aggressive behaviour (Przybylski et al., 2014).

The frustration–aggression hypotheses, again, was not discarded as out of date, but adapted and assimilated into the new psychological framework. Its reformulation by Berkowitz introduced another era of research on frustration and aggression by combining the cognitivist perspective with psychological theories of affect and emotion, further refining the theory's value and practical implications.

In the assertion of Ibiang (2016), motivational psychologists have proposed alternative explanations to describe the mechanisms behind the causal link between frustrating events and aggressive outcomes. In spite of the constant changes to and refinements of its theoretical boundaries that characterize its development, the frustration–aggression hypothesis has been successfully applied to explain a wide range of behaviours in individuals, groups, and systems.

Eventually, a future fundamental change in psychological science might well cause yet another shift in its applications, and maybe even the falsification of some of its earlier predictions, it is safe to say that the empirical discoveries within the frustration–aggression framework have greatly advanced the understanding of human aggression and will continue to do so (Whitaker et al., 2013).

6. Critical Analysis of Insurgency in the North-East Nigeria

Boko Haram's origin is traceable to the 1990's when its pioneer leader Abu Yusuf Mohammed Yusuf, popularly known as Mohammed Yusuf led a radical Salafist Islamic youth group called Shababul Islam

meaning Islamic Youth Vanguard (ICG, 2014). Researchers generally hold the view that it was formally established in 2002 with the name Jama'atu Ahlis Sunna Lidda'awati Wal Jihad, meaning "people Committed to the Propagation of the Prophet's Teachings and Jihad". However, the name Boko Haram is derived from the Hausa language which means that "Western education is sin" and this name was given to them by the populace, due to their rejection of western education, the teachings and criticism of their leaders against societal ills supposedly orchestrated by western education. According to them, since western education 'boko' has been a harbinger of corruption and the socio-economic cum political societal inequalities, it must be forbidden 'haram' by true Muslims (Sergie and Johnson, 2014; ICG, 2014).

Therefore, it is based on this religious ideological stance that Boko Haram aspires to establish an Islamic state and Sharia laws in Northern Nigeria in particular and Nigeria in general. By 2003, the group had enlarged and started having brushes with security agencies due to their unlawful proclivities, which was accentuated by their varied linkages to the same political class they originally set out to criticize and condemn (1CG, 2014; Onuoha, 2012). This continued through 2004 and the refusal of the Nigerian state to nip their activities in the bud endeared them to several youths and thus, made their recruitment drive highly successful. However, in 2009, cognizant of the subversive tendencies of the group, the Bauchi state government restricted them from public preaching and further recruitment of converts. Already enraged, they characteristically disobeyed the motorbike helmet law and in an attempt by Nigerian security forces to compel obedience from them, a major conflict crisscrossing four States (Bauchi, Borno, Kano and Yobe) ensued (Onuoha, 2012:58). The fight and riots lasted for five days until Boko Haram was eventually overpowered by the Nigerian military in Maiduguri, Yusuf was arrested, detained and he died in police custody. And it was recorded that between 700 and 800 of his members also died (Sergie and Johnson, 2014; Meehan and Speier, 2010).

From all appearances, Boko Haram insurgency could not be annihilated or even caged by the Nigerian state due to its obvious international dimensions. The transformation from a "machete-wielding mob" (Zenn, 2013) to a more organized one with armoured personnel carriers, fleet of SUVs, convoy of Hilux jeeps and possession of an assortment of sophisticated weaponry is only an indication of the fact that Boko Haram has access to financial and logistical support outside the shores of Nigeria. Evidently, the group has established links with Al-Qaeda in the Islamic Maghreb (AQIM), Al-Shabaab in Somalia and Al-Qaeda in the Arabian Peninsula from where it has received advanced training and monetary support for its strategic insurgent activities in Nigeria (ICG, 2014; Sergie and Johnson, 2014; Zenn, 2013). Various categories of "arms and ammunition surface-to-air missiles, anti-tank missiles, rocket propelled grenades (RPGs), AK-47 assault rifles, etc., looted by rebel forces and mercenaries during the uprising in Libya have been acquired by terrorist groups like Al Qaeda in the Islamic Maghreb (AQIM) and sold to Boko Haram and its splinter groups".

Furthermore, Boko Haram insurgents collaboratively fought with AQIM and Movement for Unity and Jihad in West Africa (MUJAO) in northern Mali (Zenn, 2012). They thus have had access to the psychological motivation, ideological inspiration, technological exposure (handling of Improvised Explosive Devices - IEDs), military training, logistical facilities, financial empowerment and perhaps, personnel of these fundamentalist Islamic groups.

The porosity of Nigeria's border also facilitates the fluidity and movement of members of the group from one neighbouring country to another. Abubakar Shekau for example reportedly fled to Gao in northern Mali with a thigh wound after he was almost caught by security forces on 24 September, 2012. Consequently, Nigerian troops were deployed to Mali in 2013 to collaboratively fight with French forces and flush out MUJAO and other jihadist Islamic groups, including Boko Haram in northern Mali (ICG, 2014).

Szrom and Harnisch (2011; cited in Gourley, 2012: 8-9) posited that for Al-Qaeda to operate effectively in any environment, the following conditions must be prevalent: "underdevelopment, incompetent governance, and a citizenry disenfranchised by or disillusioned with the central government an environment conducive to Al-Qaeda's presence and operations must also have a history of radical Islamism that Al-Qaeda operatives can exploit". Nigeria fulfils virtually all the aforementioned negative parameters necessary for the operation of a colossal and global terrorist outfit like al-Qaeda and this is made possible through the nexus it (Al-Qaeda) has established with Boko Haram. Shekau has not hidden his linkage to Al-Qaeda as he showers encomiums on Osama Bin Laden in most of his video clips (Zenn, 2013). Also, the use of suicide bombers

was hitherto, alien to the group until after their training in Somalia by Al-Shabaab (an Al-Qaeda affiliated group) in 2011.

The obvious nexus between Boko Haram and other international fundamentalist Islamic groups especially Al-Qaeda has equally strengthened various countries within the international system to express solidarity with the Nigerian state and designate Boko Haram a terrorist group. For example, the United States of America (US) designated the group a foreign terrorist organization on November 13, 2013. Britain also proscribed the group and on 22 May, 2014, the United Nations Security Council Al-Qaeda Sanctions Committee formally included Boko Haram as one of the groups subject to financial and arms sanctions globally. By virtue of this inclusion in the sanctions list, anyone or corporate organization that supports Boko Haram financially, through provision of arms and/or by the supply of personnel has committed an offence against the global community. Members of the group are also banned from international travels - they cannot freely travel from one country to another without being arrested. Furthermore, the US has deployed eighty military personnel with drone military facilities to assist Nigeria in search of over two hundred girls kidnapped by Boko Haram on 14 April, 2014.

In addition, the French President, Francois Hollande hosted an unprecedented regional security summit in Paris for leaders of Nigeria's neighbouring countries and some international stakeholders to fashion out pragmatic collaborative strategies aimed at checkmating and possibly, annihilating the Boko Haram insurgency. Present at the summit were: President Paul Biya of Cameroon, President Mahamadou Issoufou of Niger, Republic, President Boni Yayi of Benin and President Idriss Derby of Chad. Other stakeholders and friends of the Nigerian state present at the summit tagged "Paris Summit for Security in Nigeria" were, Britain, the European Union and the US. Britain has also deployed three teams of specialized advisers with a Royal Air Force (RAF) surveillance aircraft to help search, locate and rescue the over 200 school girls abducted by Boko Haram in Chibok, Nigeria. Similarly, China and Israel have indicated interest to assist in the search and rescue mission. Glaringly, the Boko Haram insurgency that started as a local Nigerian conflict has assumed international dimensions from various perspectives (ICG, 2014).

7. Critical Analysis of Reconstruction and Rehabilitation in the North-East, Nigeria

Nigeria as a country has witnessed its share of conflicts and disasters, leading to recovery efforts. A current prolonged and debilitating conflict is the on-going Boko Haram Conflict, which had led to disruptions in social and communal relationships; destruction of physical structures such as places of worship both mosques and churches; homes; offices; educational institutions and social infrastructures as well. Some of the impacts of conflict on the socio-economic and political development of North-Eastern Nigeria may include the following:

7.1 Disruptions in Community and Family Cohesion

Boko Haram activities have led to the dislocation of many families as many communities had literally fled their ancestral lands and have become Internally Displaced Persons within Nigeria while many have fled to neighbouring countries of Niger, Chad and Cameroon. According to UNICEF (2015), an estimated 800,000 children have been forced to flee their homes as a result of the conflict in North-eastern Nigeria between Boko Haram, military forces and civilian self-defence groups.

In this trend, it is believed that there are currently 2,184,254 Internally Displaced Persons (IDPs) identified in 447,628 households. This signifies a 1.6% increase as recorded as against the year 2020. It is in the same vein that UNICEF (2021) reported that, children are the hardest hit, being vulnerable and dependent on their parents and communities for care and nurture, the attacks on their communities make them even much more vulnerable to illnesses, lack of nourishment, and deprivation of education amongst others.

In line with the above, Ujomu (2001) posits that: Children are bearing the brunt of this crisis, experiencing unimaginable violence and horrors no child should ever be subjected to. Most disturbingly, children and young people have been very deliberately put in the crosshairs with targeted attacks on schools, mass abductions and even reports of children being forced to carry bombs strapped to their bodies for public detonation. These grave violations of children's rights must be stopped immediately" (Ujomu, 2001). A region that experiences protracted conflict will also often suffer from economic underdevelopment, damaged assets, and a reduced capacity to function effectively. Armed conflict

retards a country's development process, and also erodes its developmental foundation.

7.2 Material and Economic Losses

In addition to the huge loss of lives, war leads to material losses, such as destruction of crops and roads, and extensive damage to economic and social infrastructures. Transportation and communication system, banking, health care, education, and agriculture are often damaged or destroyed. The economic stress caused by war lessens production capacity and limits the investment capabilities of war-torn regions. During wartime, resources are "diverted from routine maintenance of existing social and economic infrastructure" and into defence. Non-military government spending is often tightened, and there is typically a decline in investments in industrial, agricultural and construction sectors. These industries, as well as overall trade, tend to decline. Debt often reaches very high levels (Sheriff, 2015).

7.3 Emigration and Displacement of Persons

War can also lead to emigration and displacement, which can reduce the overall size of the labour force (Segovia, 1996). People are killed, or they abandon their homes. This can create significant costs for a country in terms of capital and labour power.

7.4 Decrease in Skilled Manpower

Human resource shortages are also often severe in war-torn societies. Educational opportunities decrease, and access to land can be limited. Indeed, war-induced destruction and poverty can lead to illiteracy, malnutrition, inadequate access to clean water and sanitation facilities, and low school enrolment (Udounwa, 2013).Protracted conflict disrupts the routine life of many society members. These burdens may contribute to harsh economic or social conditions, pitting subgroups against each other. In severe cases, it produces social disorder resulting in widespread violence, famine, and flight (Zohrabi, 2013). This has been witnessed in the North East as skilled, educated manpower have fled the region to more conducive zones and states. Since the main grouse of the insurgents has to do with Western education, the skilled and educated persons, being the focus of attacks moving away, further depletes the already insufficient and inadequate skills set of the zone.

7.5 Environmental Degradation

The environmental degradation brought about by war is also extensive. War-related population movements wreak havoc on fragile ecosystems and natural resources are over-exploited to finance the war effort (Udounwa, 2013). Land mines particularly in the Sambisa and other main forested areas make territory unusable for agriculture. Following the resolution of the armed conflict, it is expected that multiple claims to land and assets arise, and are difficult to resolve in the contentious political environment that typically follows conflict.

8. Efforts at Reconstructing and Rehabilitation of the North-East:

The development of physical and financial infrastructure, as well as investment in human capital and natural resources, are crucial to post war economic reconstruction. After armed conflict has come to an end, parties face the difficult task of re-establishing and developing the political, social, and economic structures within society. Indeed, states emerging from armed conflict face the difficult challenge of transitioning from "war-weakened economies and highly polarized political and social relations to rejuvenated economies capable of providing the basic needs of all citizens and political groups that offer all social groups meaningful participation" in decision-making (Ball, 2000). An essential component of peace building is the rebuilding of economic institutions, government institutions, and communities (Higazi, 2013).

However, it was revealed that the major responses to the conflict have been coming from the Federal Government of Nigeria through different agencies, Borno State Government, Other State Governments, which channel their support through the Borno State Government, the United Nations, largely through UNICEF and religious bodies and institutions. The major efforts have been in the provision of relief, such as food items, clean water, hygiene items, clothing, temporary accommodation and other necessities (Boehler, 2015).

The Federal Government of Nigeria has the following Agencies and Committees responding and providing relief to the citizens of the North East:

I. National Emergency Management Agency – NEMA

II. Presidential Initiative on the North East (PINE)

III. Presidential Committee on Distribution of Relief Materials

IV. Victims Support Fund

V. Safe School Initiative
VI. Special Committee on the Resettlement and Rehabilitation of the IDPs (Simeon, 2012).

The interventions being carried out by the different Committees are highlighted below as reported by Sheriff and Ipinmoye (2015):

(a) National Emergency Management Agency:

The agency has been active and consistent in providing relief to internally displaced persons. There are over 20 IDPs camps across the northern part of the country.

NEMA had been providing the following relief services:

- Deployed ambulances at strategic locations to support and evacuate victims to hospitals and to provide first aid".
- Provided comprehensive humanitarian support to 3,200 IDPs from Baga at its secure facility at Teachers Camp, Maiduguri".
- Sewing of 5 sets of new garments for women and children rescued from Sambisa Forest.
- Registering and transporting 11,499 returnees from Niger Republic to their home states.
- Setting up and maintaining feeding and sanitation centres in IDP Camps.
- Partnering with bilateral and multilateral agencies, US Govt and others in providing relief to the IDPs.
- Providing psychosocial support and counselling for 275 women and children rescued from Sambisa Forest by the Armed Forces.
- Presenting Relief Materials to refugees.
- Conducting sensitization meetings with the Armed Forces.
- Supporting the provision of educational materials and schooling by the Kano State Government to Orphans and IDPs (Sheriff and Ipinmoye, 2015).

(b) Presidential Initiative for the North East:

This was launched by President Jonathan's Representative, the Minister of Power Alhaji Mohammed Wakil on November 14, 2014. The Federal Government deployed more troops and resources that helped to ensure that the occupied towns are recaptured, A Marshall Plan for the rehabilitation, reconstruction and redevelopment of the area was to be unveiled as soon as the insurgents are driven out of the area. (Information Nigeria Online News, 2014 Nov 15).

News Agency of Nigeria (2015) reported that the Presidential Initiative for the North-East in collaboration with National Emergency Management Agency (NEMA), has distributed relief materials to over 100,000 Internally Displaced Persons (IDPs) in the zone.

(c) Presidential Committee on Flood Relief and Rehabilitation:

This agency had signed a N5 billion contract for the construction of rehabilitation centres for survivors of flood disasters, communal clashes and insurgency in some parts of the country (Voice of Nigeria, 2014, July 17).

(d) The Borno State Government:

The Government of Borno State had taken significant steps in providing Relief, which was done through the Food for all Initiatives, wherein 2000 households in Bayo and Kwaya Kusar Local Government Areas of Southern Borno State had so far benefited from assorted food items. In addition to the relief efforts state wide, the State Government had taken the following initiatives on Rehabilitation and Reconstruction.

(e) Reconstruction of destroyed towns and communities

This has been done with 432 units of houses completed for victims of insurgency of Bulabulin - Ngarnam community in Maiduguri. New housing units have also been built and delivered in Bama, Konduga, Gwoza, Yoyo in Monguno, some parts of Hawul, Kaga, to resettle victims of insurgency attacks. Schools, markets and hospitals have been rebuilt in local government areas.

(f) United Nations Support: through UNICEF:

The United Nations provides counselling and psychosocial support to over 60,000 children affected by the conflict in Nigeria. UNICEF is also working with partners to provide safe water and life-saving health services, restore access to education by creating temporary learning spaces and deliver

therapeutic treatment to malnourished children (Higazi, 2013).

(g) United Nations Support: Integrated Support Package:

According to, the UN Integrated Support Package (ISP) For North East Nigeria, the United Nations Initiative is worth $59,138,367.00 and is aimed at providing all necessary support for ensuring that the rescued women, young girls and children receive all social, health, psychological and other related support before they re-join their communities. Further support will be provided to ensure that their livelihoods and communities are restored as early as possible. (Musonda, 2015).

(h) Food Assistance Programs: United States:

The United States Government, through the United States Agency for International Development (USAID)'s Food for Peace (FFP) initiated an emergency food assistance project for food insecurity in Yobe and Gombe States. The Food for Peace Project is being done in partnership with Action against Hunger (AAH), Mercy Corps, and the American University of Nigeria, Yola to provide emergency food assistance to vulnerable, conflict-affected populations in north-eastern Nigeria. The project targets 3,000 households in Yobe and 4,100 households in Gombe and aims to increase purchasing power to meet immediate food needs, increase dietary diversity, protect livelihoods of displaced persons and host community members, and prevent the risk of malnutrition in children. FFP supports unconditional cash transfers, food vouchers and nutritional sensitization, targeting the most vulnerable populations, including IDPs, pregnant and lactating women, female-headed households, and households with a child under five (NEMA, 2015).

(i) United States in partnership with the United Nations and the Federal Government of Nigeria:

Safe Schools in the Northeast: According to the USAID, the transfer of a $2 million donation by the U.S. government to support Nigeria's Safe Schools Initiative a project aimed at meeting the education needs of thousands of children affected by the on-going conflict in northeast Nigeria, specifically in Borno, Yobe, and Adamawa States. The UNDP will manage a multi-donor trust fund to support the Safe Schools Initiative. The Safe Schools Initiative will manage school-based interventions, such as the improvement or refurbishment of infrastructure and furnishings, provision of teaching and learning materials, community-based preventative planning, and support for double-shift scheduling to accommodate more students. Activities under the initiative include increasing the resilience of affected communities and building the capacity of children, teachers, and parents to prevent, reduce, and cope with challenging situations that affect children's education. Other aspects include multi-level communication/advocacy efforts and special measures, such as transferring students from schools in "high-risk areas" to schools in safer areas (Sheriff and Ipinmoye, 2015).

9. Modules of Reconstruction in the North-East, Nigeria

The North East region of Nigeria, comprising of Borno, Adamawa, Yobe, Bauchi, Gombe and Taraba States, has been ravaged by the Boko Haram insurgency since 2009. Estimates of the negative impacts of the crisis include approximately 14.8 million people adversely affected, about 2.3 Million Internally Displaced Persons (IDPs), including over 177 thousand Nigerian Refugees in neighbouring countries, over 20 thousand deaths sand even more people severely injured or missing. Many of the region's residents now live in IDP camps, with host families away from their original homes and in host communities. Many host communities are severely stressed, having to cater for the large influx of displaced people from places directly hit by Boko Haram (Sheriff and Ipinmoye, 2015).

The Boko Haram crisis has also resulted in extensive damage to social, economic, health and market infrastructure. Numerous homes have been destroyed. Many schools, hospitals, markets and places of worship have been destroyed or closed. Many communities have been completely abandoned, especially in Borno and Yobe States. There are limited numbers of teachers, doctors and other health workers, with over 500 teachers killed and many fleeing the region. While there is still a semblance of economic activity in some parts of the region, the economy of the region has virtually collapsed, with many parts of Borno, Yobe and Adamawa, having lost key markets and other market-related infrastructure. Returning the region to normalcy is one of the highest priorities of the Nigerian Government. Achieving this will require bringing an end to the war, effectively handling the humanitarian crisis and implementation of an effective rehabilitation and resettlement programme. It will

require the implementation of a solid peace-building, reconciliation and de-radicalisation framework; as well as the effective reconstruction of social and physical infrastructure.

Finally, the region will require the successful implementation of a development strategy that leverages advanced knowledge of post conflict redevelopment strategy, the commitment of the Private Sector, the support of International Development Partners and Local Partners such as the Non-Government Organisations (NGOs). Returning the region to normalcy will also require a clear funding strategy, strong and accountable Governance and Institutional Frameworks, a rigorous Monitoring & Evaluation Framework and an effective Communication Strategy. 'Rebuilding the North East' (The Buhari Plan) is a harmonised plan for achieving all of the above. The harmonised Plan seeks to have one integrated planning document and framework that will serve as the national road map for all interventions in the North East. In completing this plan, the following existing planning documents, assessments and reports developed by all the region's Stakeholders were reviewed as foundations, as asserted by Sheriff and Ipinmoye (2015), as follows:

- The Presidential Initiative of the North East (PINE)Short-term Emergency Assistance and Economic Stabilisation (EA-ES2014), Intermediate-term Resettlement and Rehabilitation (RRR 2015) and the Long-Term Economic Reconstruction and Redevelopment Plan (ERR 2015) in collaboration with several Government Ministries, Department and Agencies.
- The North East States Transformation Strategy (NESTS) by the Governors of the 6 Constituent States, in collaboration with the North East Economic Summit Group (NEESG).
- The 2016 Humanitarian Response Plan (HRP) by the National Emergency Management Agency (NEMA) and the Humanitarian Country Team (HCT).
- The 2016 Humanitarian Needs Overview (HNO) by the United Nations Organisation for Humanitarian Coordination and Assistance (UNOCHA).
- The 2016 Protection Monitoring Report (PMR) by the United Nation Human Rights Commission (UN-HRC).
- The 2016 Nigeria Displacement Tracking Matrix (DTM) by the International Organisation for Migration (IOM).
- The Educational Interventions in the North East Report by the Safe Schools Initiative (SSI).
- The 2016 Victim Support Fund (VSF) Programme Document.
- The 2016 Sustainable Peace-building Strategy (SPBS) by the National Institute for Peace and Conflict Resolution (IPCR).
- The 2015 Resettlement Framework (RF) developed by the National Commission for Refugees (NCR).
- The 2016 North East Health Sector Humanitarian Crisis Response Strategic Plan (HS-HCRSP) by the Federal Ministry of Health (FMOH).
- The 2014 Countering Violent Terrorism (CVE) Plan of the Office of the National Security Adviser (ONSA).
- Several other proposals, plans, reports and assessments of Government Ministries Departments and Agencies as submitted.
- The 2016 Nigeria Peace-building and Recovery Assessment (RPBA) by the UN, EU, World Bank, USAID, DFID and others. Thus, in 'Rebuilding the North East', the Humanitarian Assistance, Social Stabilisation and Early Recovery sections (Volume 1) derives largely from the 2016 HRP, the 2014 EA-ES and the relief efforts of the many International Humanitarian Actors; the Rehabilitation, Relocation and Resettlement sections (Volume II) is a product of the 2015 RRR.

10. Conclusion

From the critical analysis of literature related to reconstruction and rehabilitation in the North-East, it can be concluded that returning the region to normalcy will also require a clear funding strategy, strong and accountable Governance and Institutional Frameworks, a rigorous Monitoring & Evaluation Framework and an effective Communication Strategy. It was also discovered that the Internally Displaced Persons (IDPs) in the North-East Nigeria have not been rehabilitated into their various communities till date, the reconstruction of the social amenities have not yet properly started, it is not the responsibility of NGOs, individuals, religious bodies and the security to engage in reconstruction and rehabilitation but rather it is the responsibility of the

government. It was discovered that children are the hardest hit, being vulnerable and dependent on their parents and communities for care and nurture, the attacks on their communities make them even much more vulnerable to illnesses, lack of nourishment, and deprivation of education amongst others. In addition to the huge loss of lives, war leads to material losses, such as destruction of crops and roads, and extensive damage to economic and social infrastructures. Transportation and communication system, banking, health care, education, and agriculture are often damaged or destroyed. The economic stress caused by war lessens production capacity and limits the investment capabilities of war-torn regions. During wartime, resources are "diverted from routine maintenance of existing social and economic infrastructure" and into defence.

The conclusion also shows that the records of damages are not known and also the record of damages are inflated, reveals that government, NGOs, international organisations and religious bodies are stakeholders to compensation process of those affected by insurgency, extra judicial killings and summary executions of civilians by the insurgence are wrongly reported and bias, that Boko Haram sect and religious bodies are the perpetrators of the illegal and unlawful termination of innocent civilian lives and there are cases of human rights violations like rape, torture and other forms of brutality in the insurgency activities

11. Recommendations

Based on this, it is recommended that:

Social and basic amenities destroyed in communities across the North-East Region of Nigeria by activities of terrorism masterminded by Boko Haram should be reconstructed as soon as possible. This is necessary to ameliorate the hardship people are facing in the region due to acute shortage of social and basic amenities in several communities in the region. Sources of water supply, dispensaries and maternity centres destroyed in several communities should be rebuilt. Several connecting roads and bridges were damaged by Boko Haram to make accessibility to several communities difficult for the government forces. Those roads and bridges should be repair to create easy access and connectivity among the various communities in the region. Several public or general hospitals in some of the areas captured by Boko Haram and which were used by the Insurgents mostly as camps and treatment centres have been destroyed by the Terrorists as they were fleeing from such places. There is urgent need to reconstruct those hospitals so as to make access to health care possible for IDPs returning back home. Local Government Secretariats have been attacked and burnt to ashes by Boko Haram Terrorists in several local government headquarters. Civic institutions like governmental departments, courts, police stations and outpost as well as private and public financial institutions like banks and micro-finance centres were also destroyed by Boko Haram in several communities. Public schools and even private ones in some cases have been reduced to rubbles and ashes by Boko Haram. Those facilities should be reconstructed to give people especially IDPs returning back home a new face of life to start all over again. The North-East Development Commission (NEDECO) bill recently passed by Nigerian National Assembly and assented by the President is expected to among other objectives participate actively in the reconstruction of damaged facilities and come up with new ones where necessary in the North-East Region. The Presidency should endeavour to ensure that fund accrue to the commission is utilized appropriately in the development of the region.

Although, complains are high that the government cannot specially state the actual figure of civilian lives and properties destroyed by the insurgency. This is because of the belief that several summary execution and extra-judicial killings of civilians and also some civilian casualties recorded in some of the cross fire between the conflicting parties were not recorded. These claims are actually hard to deny or refute because the insurgency brought about scenarios with features of several civilians' casualties which were not actually recorded. But then, for those which records are available, necessary preparations must be made to compensate families of innocent civilians unlawfully killed in the insurgency. Those whose properties were mistakenly or deliberately destroyed in pursuance of fleeing Terrorists should also be compensated. Several houses, shops full of goods, cars, Lorries, etc. were destroyed in the cause of searching and chasing the Terrorists. Their owners should be compensated as soon as possible. This will ameliorate the suffering and economic difficulty the families of innocent civilians killed by the insurgency are going through. The compensation will also give those whose shops and businesses were destroyed a new face of life and capital base to start their businesses all over again.

Independent judicial panel of inquiry is not only needed but should be established by the Nigerian government to investigate cases of abduction, torture of civilians, rape, extra-judicial killings and summary

executions in the insurgency. Aggrieved families of innocent civilians summarily executed or killed extra-judiciously should forward complain and demand justice for their death relatives killed unlawfully in the insurgency. Civilians who were also tortured should be given the privilege to lodge complains before the panel of inquiry. Those who were apprehended, tortured and put to detention without trial for allegedly been accused as Boko Haram members should be allowed to file complains before the panel especially for torture, unlawful detention and deformation of character. Victims of rape and other form of brutality should also have opportunity to lodge complains before the panel. The panel`s findings and recommendations should be implemented by the government. The panel should recommend to the government cases in which perpetrators should be liable for prosecution in the court of law and those which victims are entitled to compensation. This correction of injustices encountered in the insurgency will go a long way in quenching the grievances on the minds of the people in North-East Region who believe that justice has not been done to them in relation to the violation of their fundamental human rights in the insurgency.

And finally, there is need for the Nigerian authority to not only find out who the sponsor (s) of Boko Haram is or are. But to also make sure that if discovered, such person (s) should be apprehended and brought to justice to face the full wrath of law so as to serve as deterrent to others nurturing similar ambition of destabilizing national security.

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Socio-Economic Impacts of "*Īd-Al-Adhā*" (Festival of Sacrifice) for the People of Odeda Local Government of Ogun State, Nigeria

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Abstract. This study investigated socio-economic impacts of 'Īd-al-adhā (festival of sacrifice) for the people of Odeda Local Government of Ogun State, Nigeria. The study adopted the descriptive research design of a survey type where a self-designed questionnaire was used to collect data. The entire Muslims of Odeda Local Government Area of Ogun State constituted the population of the study. A sample of four hundred (400) respondents was selected for this study using stratified and convenient sampling techniques. Of the 400 copies of the questionnaire administered, 385 were returned, indicating 96.5% response rate. Data obtained were analysed, using frequency counts, simple percentage, and bar charts. Findings from the study revealed that to a large extent, Muslims in Odeda Local Government Area of Ogun State have understanding of the concept of 'Īd-al-Adhā. Findings also indicated both positive and negative social and economic impacts of 'Īd-al-Adhā for the lives of Muslims in Odeda Local Government Area of Ogun State. Based on the findings from this study, it was recommended among others that government should be more pro-active in eliminating the exploitation and extortion of innocent buyers by some traders and service providers during Īd-al-Adhā, and that Imams and Muslim organisations should make use of the media (print, electronic and mass media) to address the various anti-social and immoral acts exhibited by some people during Īd-al-Adhā.

Keywords: Īd-al-Adhā, Social, Economic, Anti-Social Behaviour.

1. Introduction

Festival is an occasion for feasting or celebration, especially a day or time of religious significance that recurs at regular intervals or an often regularly recurring program of cultural performance, exhibition, or competitions (The America Heritage Dictionary 2009). Festivals whether religious, cultural, or secular play a very essential role in any local community, because it helps to develop the pride and identity of a people (Lawrence-hart, 2014). Through festival, people are afforded the opportunity to come to gether to reflect and determine a sense of community and place, represent their image and identity, contribute to cultural tourism, the life of a community is renewed, people are entertained and their tensions find an outlet (Oluwatosin, 2013). The common elements in all festivals include creating atmosphere of merriment, celebration, and drawing of people from all walks of life together. Festivals engender peace because it creates euphoria of feasting and meeting people of different strata and religious inclination. The gatherings and visitations that characterised the periods of festivals build good social bond which usually result in joyful experience, societal development, leadership building and opportunity for networking (Wang, 2009).

Generally, festival serves as a means of community assembly and unity and a way of placing the people at the heart of their culture and social environment (Fahm, 2015). It plays a significant role in the life of a community as its period creates people with an avenue to engage in deeds and acts that are capable of lifting spirits, transferring knowledge, enhancing neighbourliness, and creating community resilience (Ibraheem, Abioye, Olayinka, Emmanuel & Chinonso, 2015). Social effects of festival period are mostly covering the issue of local socio-economic environment, social inclusion of underprivileged, active citizenship and culture based urban development (Szabo, 2012). In fact the contributions of festivals to the socio economic life of society cannot be over emphasised. This is because society is

characterised by various forms of business activites; buying and selling, exchanging of goods and services employment opportunity are experienced

Religion is not only a system of belief in and human relation to supernatural being or god(s), but also a means guiding human relations in all facets of life; be they socio economic, political, cultural, and educational aspects of society (Akanni, 2007). One of the common elements of all religions of the world is festival institution. Religious festivals are celebrated to honour the Supreme Being and the different deities in the communities or to mark a special event in a particular religion (Lawrence-Hart, 2014). The days of religious festivals are held holy and given special attention to create opportunity for people to meaningfully interact while they are usually celebrated on recurring cycles in a calendar year or lunar year (Wang, 2009)

Islam as a total way of life as believed by its adherents and as one of the major religions in the world has many social and economic institutions that have great impacts on the society. These include, Sadaqah (charity), Zakat (alms giving), hajj (pilgrimage to Makkah), Sawm (fasting), waqf (endowment), hibah (giving of gift), wirathah (inheritance), Nikah (marriage) and ‘Ĭd (festival) institutions. ’Ĭd is an Arabic word which means “a day which return often” and it is a wholesome celebration of a remarkable achievement in the service of Allah (Chaudhry, 1988; Akani, 2007). There are two major Ĭd in Islam which are globally celebrated by every Muslim. These are ‘Ĭd-al-Fitr (festival at the end of Ramadan fast) and ‘Īd-al-Adhā, (which is the focus of this study.

‘Īd-al-Adhā’ (festival of sacrifice) is the annual Islamic festival celebrated by Muslims world-wide marking the end of hajj (holy pilgrimage to Makkah and Madinah) which is one of the five pillars of Islam. The first ‘Īd-al-Adhā celebration by Prophet Muhammad (SAW) was in the second year of migration to Madinah. However, it is not only celebrated by the pilgrims alone but by all Muslims. ‘Īd-al-Adhā’ is the second most important festival in Islam in the Muslim World which takes place on the 10th day of Dhul-Hijjah (the last month of Islamic calendar) (Ibrahim, Budisatria, Widayanti & Artama, 2019). Ĭd-al-Adha is characterised by slaughtering of sacrificial animals which must be healthy (i.e. must not be cut, castrated, have docked tails or a broken horn, be lame or damaged), wearing of best dress, exchanging of gifts, and regenerating of economic (Ahmad, 2012; Luginbuh, 2014).

Like other festivals, the period of ‘Īd-al-Adhā creates room for social gatherings where friends are made, experiences of lives are shared, and opportunities for people from far and near to converge at least once in a year to know more about one another are created (Akanni, 2007). Many Muslim communities take avenue afforded by ‘Īd-al-Adhā festival to discuss the challenges facing the society and find ways to solve them (Satt, 2017). This period of celebrations, is also characterised with distribution of sacrificial meats and other gifts by Muslims among neighbourhood and extended family while money is given to children abundantly (Abubakar, 2013).

In some parts of Nigeria, ‘Īd-al-Adhā festival is always celebrated with elegancy and funfair where children move round the town and various age groups come together to celebrate in a colourful atmosphere (Jimoh, 2016). However, the financial implications of these periods are relatively high as people tend to spend more money for acquiring different goods and services compared to other months of the year (Chowdhury & Mostari, 2015). There is usually an increase in the individual and household’s spending as a result of significant hikes in consumer prices, especially those of food products (Faye, Laoussed, Maghrabi, Mansouri & Ladiray, 2019).

Though, many studies have been carried out on the concept, types and the contributions of festivals to human life, however, to the best of the researcher’s knowledge, there is no known singular Muslim scholar among the previous researchers that paid attention to the study of socio-economic impacts of ‘Īd-al-Adhā festivals for the lives of Muslims in Odeda Local Government. It is with this gap that this study aims at appraising socio-economic impacts of ‘Īd-al-Adhā (Islamic Festival) on the lives of Muslims in Odeda Local Government Area of Ogun State, Nigeria with a view to identifying their challenges and offering pragmatic recommendations.

2. Research Questions

In the course of this study, the following research questions were raised and answered:

- To what extent do Muslims in Odeda Local Government Area of Ogun State, Nigeria understand the concept of ‘Īd-al-Adhā?
- What are the social impacts of ‘Īd-al-Adhā (Islamic Festival) on the Muslims in Odeda Local Government Area of Ogun State?
- What are the economic impacts of ‘Īd-al-Adhā (Islamic Festival) on the Muslims in

Odeda Local Government Area of Ogun State?

3. Methodology

Study Area: The study was conducted in Odeda Local Government Area which is one of the 20 local governments in Ogun state located in the South-Western part of Nigeria. Odeda local government area was created out of Abeokuta council area of Ogun state in October 1955 by Late Chief Obafemi Awolowo the first premier of the region. The headquarters is situated at Odeda town along Abeokuta-Ibadan road which is about 20 kilometres from the state's capital Abeokuta. The local government area has an extensive landmass mostly grassland with an area of 1263.45km^2 and a population of 109,449 people according to the 2006 census (FOS, 1996). The local government shares boundary with Abeokuta South, Abeokuta North and Obafemi Owode local government areas of Ogun state in the south, west and east respectively. It also shares boundary with Ibarapa and Iddo local government areas of Oyo state to the north and east respectively. People in the area are predominantly "Egbas" who largely speak Egba dialect and are mostly farmers by occupation. The administrative set-up of Odeda local government includes the headquarters and other 3 area zones which are Ilugun, Opeji/Bode Olude and Obantoko zones respectively.

Research Design: This descriptive research design of a survey type was adopted for this study.

Population: The population of this study consisted of the entire Muslims of Odeda Local Government Area of Ogun State.

Sample and Sampling Techniques: A total of four hundred (400) respondents were selected for this study using stratified and convenient sampling techniques. Stratified sampling technique was used to group the respondents based on their respective zones while convenient sampling technique was used to identify the respondents. One hundred and fifty respondents (150) respondents were selected from the headquarters and the Obantoko zones respectively because they constitute the majority of the inhabitants while 50 respondents each were chosen from Ilugun/Bode Olude and Opeji zones.

Research Instrument: A validated self-developed questionnaire was used to collect data for this study. The questionnaire had two (2) parts; the first part was used to collect data on demographic data (age, gender, marital status, occupation, and educational background) of the respondents. The second part contained relevant items that were used to elicit responses from the respondents concerning the research questions. Responses were obtained on a four-point Likert scale of Strongly Agreed (SA), Agreed (A), Disagreed (D), and Strongly Disagreed (SD).

Validity and Reliability of Research Instruments: Content and construct validity of the research instrument was ascertained. The questionnaire was found to be reliable at 0.81 alpha-Cronbach's significance level.

Method of Data Collection: The research instruments were administered to the respondents with the help of three (3) trained research assistants who were Muslim students of Islamic studies. The administration was carried out at the Muslim praying grounds during 'Ĭd-al-Adhă prayers of 1440 AH (2019) with the permission of the Imams and the Missionaries. Out of the 400 questionnaires administered, only 386 were returned and found valid for analysis indicating 96.5% return rate.

Method of Data Analysis: Data collected were coded and analysed with the Statistical Packages for Social Sciences (SPSS v.20) using the descriptive statistics of frequency counts, simple percentage, and bar charts.

4. Results and Discussions

Table 1: Showing Demographic Data of Respondents

Demography of Respondents		Frequency (N)	Percentage (%)
Age (Years)	Below 20 years	27	7.0
	20-29 years	51	13.2
	30-39 years	87	22.5
	40-49 years	127	32.9
	50 years and above	94	24.4
Gender	Male	215	55.7
	Female	171	44.3
Marital Status	Single	50	13.0
	Married	260	67.4
	Divorced	41	10.6

	Widow(er)	35	9.0
Occupation	Artisan	57	14.7
	Civil Servant	81	21.1
	Transporters	51	13.2
	Traders	92	23.9
	Muslim clerics	47	12.1
	Farmer	58	15.0
Type of Education	Western Education alone	201	52.1
	Islamic Education alone	83	21.5
	Western and Islamic Education	102	26.4

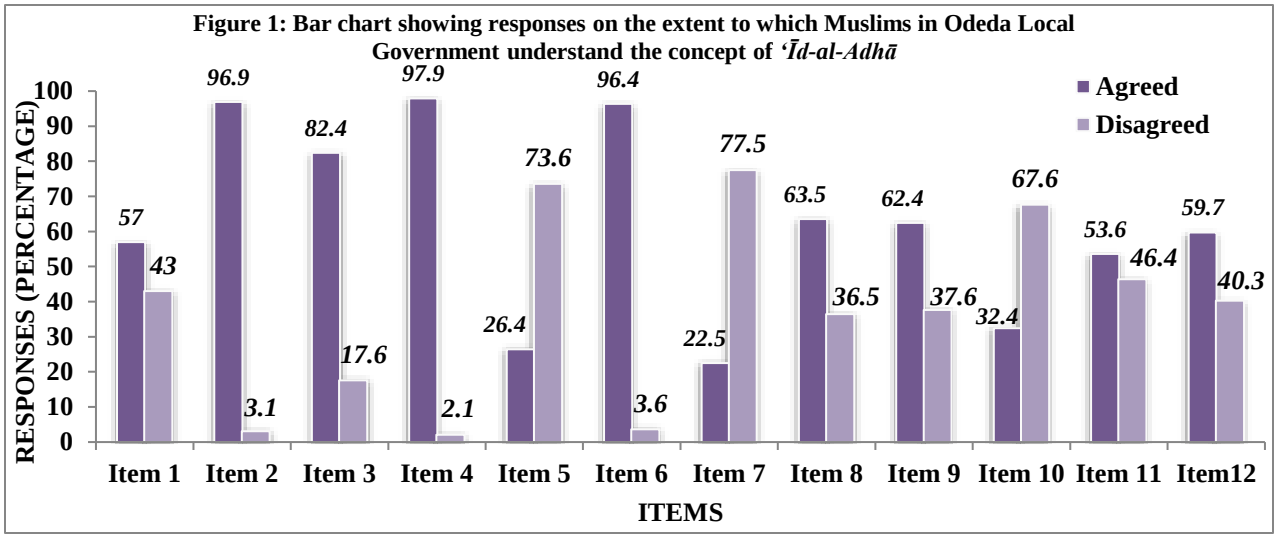
Table 1 summarized the demographic data of the respondents. Results revealed that 27 (7.0%) of the respondents were below 20 years; 51 (13.2%) were between 20-29 years; 87 (22.5%) were in the age bracket 30-39 years; 127 (32.9%) were between ages 40-49 years while the remaining 94 (24.4%) were 50 years and above. Results also revealed that 215 (55.7%) of the respondents were male while the remaining 171 (44.3%) were female. Results also revealed that 50 (13.0%) of the respondents were single; 260 (67.4%) were married, 41 (10.6%) were divorced, while the remaining 35 (9.0%) were widow(er).

Results further indicated that 57 (14.7%) of the respondents were artisans, 81 (21.1%) were civil servants, 51 (13.2%) were transporters, 92 (33.9%) were traders, 47 (12.1%) were Muslim clerics while the remaining 58 (15.0%) were farmers. The table finally revealed that 201 (52.1%) of the respondents had western education alone, 83 (21.5%) had Islamic studies alone while the remaining 102 (26.4%) had both western and Islamic education alone.

Research Question One: To what extent do Muslims in Odeda Local Government Area of Ogun State, Nigeria understand the concept of ‘Īd-al-Adhā?

Table 2: Showing the extent to which Muslims in Odeda Local Government understand the concept of ‘Īd-al-Adhā

S/N	Items	SA		A		D		SD		Total	
		N	%	N	%	N	%	N	%	N	%
1	Piety and obedience to Allah’s injunctions are the primary aims of ‘Īd-al-Adhā festival.	86	22.3	134	34.7	114	29.5	52	13.5	**386**	**100.0**
2	‘Īd-al-Adhā is celebrated to mark the end of Hajj (holy pilgrimage to Makkah)	169	43.8	205	53.1	9	2.3	3	0.8	**386**	**100.0**
3	It is recommended for Muslims to attend ‘Īd-al-Adhā prayer with their new best dress.	242	62.7	76	19.7	43	11.1	25	6.5	**386**	**100.0**
4	Both male and female Muslims are permitted to attend and perform ‘Īd-al-Adhā prayer	207	53.6	171	44.3	5	1.3	3	0.8	**386**	**100.0**
5	Chanting Takbir (glorifying Allah) en-route ‘Īd praying ground is one of the sunnah of Prophet Muhammad.	39	10.1	63	16.3	211	54.7	73	18.9	**386**	**100.0**
6	Sheep and goats are lawful sacrificial animals during ‘Īd-al-Adhā festival.	217	56.2	155	40.2	11	2.8	3	0.8	**386**	**100.0**
7	Camels and cows can also be sacrificed for ‘Īd-al-Adhā festival	28	7.3	59	15.3	246	63.7	53	13.7	**386**	**100.0**
8	Only healthy animals are lawful to be sacrificed for ‘Īd-al-Adhā festival	145	37.6	100	25.9	53	13.7	88	22.8	**386**	**100.0**
9	Slaughtering of sacrificial animals should be after Īd -al-Adhaa prayer.	129	33.4	112	29.0	62	16.1	83	21.5	**386**	**100.0**
10	The meats of sacrificial animals should be divided into three	45	11.7	80	20.7	154	39.9	107	27.7	**386**	**100.0**
11	It is sunnah to eat before going to prayer ground during ‘Īd-al-Adhā festival.	128	33.2	79	20.5	141	36.5	38	9.8	**386**	**100.0**
12	The animal sacrificial days for ‘Īd-al-Adhā festival are three	260	67.4	87	22.5	28	7.3	11	2.8	**386**	**100**



Results from table 2 and figure 1 indicate the extent to which Muslims in Odeda Local Government understand the concept of 'Īd-al-Adhā. Majority of the respondents 220 (57.0%) agreed that piety and obedience to Allah's injunctions are the primary aims of 'Īd-al-Adhā festival; also, 374 (96.9%) of the respondents accepted that 'Īd-al-Adhā is celebrated to mark the end of Hajj (holy pilgrimage to Makkah). Furthermore, 318 (82.4%) of the respondents agreed that It is recommended for Muslims to attend 'Īd-al-Adhā prayer with their new best dress. In addition, 378 (97.9%) agreed that both male and female Muslims are permitted to attend and perform 'Īd-al-Adhā prayer; while only 102 (26.4%) of the respondents concurred that chanting Takbir (glorifying Allah) en-route 'Ĭd praying ground is one of the sunnah of Prophet Muhammad.

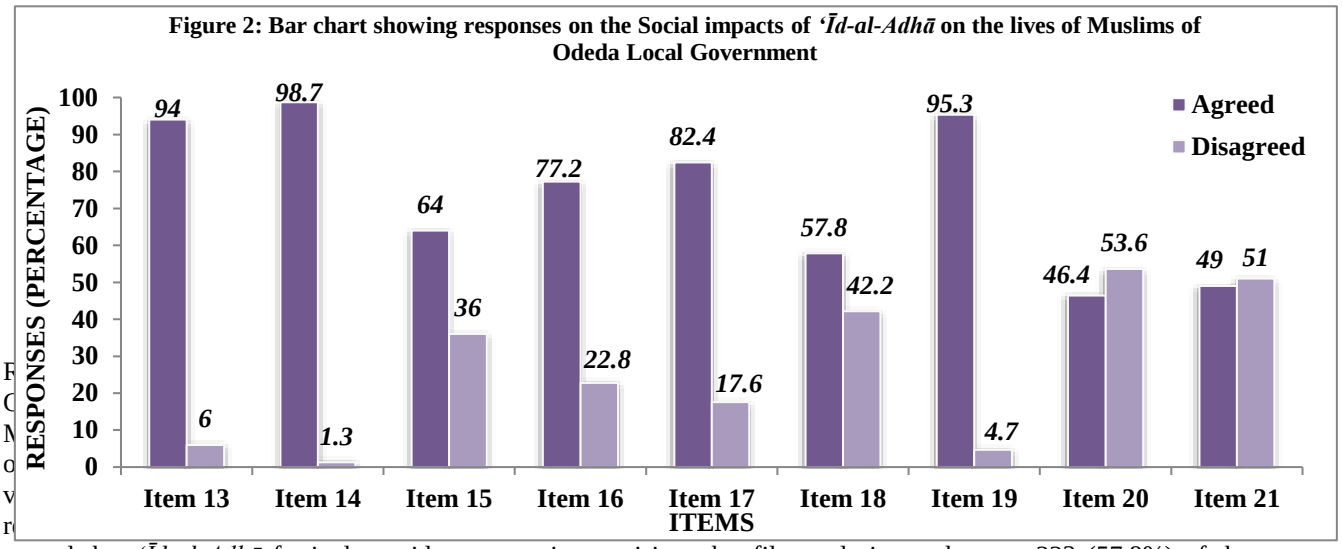
A total of 372 (96.4%) of the respondents submitted that sheep and goats are lawful sacrificial animals during 'Īd-al-Adhā festival; however, only 87 (22.5%) of the respondents agreed that camels and cows can also be sacrificed for 'Īd-al-Adhā festival. Also, 141 (36.5%) of the respondents agreed that only healthy animals are lawful to be sacrificed for 'Īd-al-Adhā festival separate routes to and from the praying grounds during Islamic festivals. In addition, 245 (63.5%) of the respondents opined that slaughtering of sacrificial animals should be after Ĭd -al-Adhaa prayer; 241 (62.4%) of the respondents agreed that the meats of sacrificial animals should be divided into three. More so, 207 (53.6%) of the respondents agreed that it is sunnah to eat before going to prayer ground during 'Īd-al-Adhā festival. Finally, the table revealed that 347 (89.7%) of the respondents agreed that the animal sacrificial days for 'Īd-al-Adhā festival are three.

Research Question Two: What are the social impacts of 'Īd-al-Adhā (Islamic Festival) on the lives of Muslims in Odeda Local Government Area of Ogun State?

Table 3: Social impacts of 'Īd-al-Adhā on the lives of Muslims of Odeda Local Government

S/N	Items	SA		A		D		SD		Total	
		N	%	N	%	N	%	N	%	N	%
13	Muslims and non-Muslims relate more cordially during 'Īd-al-Adhā festival	257	66.6	106	27.5	19	4.9	4	1.0	**386**	**100.0**
14	'Īd-al-Adhā festival provide opportunity for the family to be more cordial	311	80.6	71	18.4	4	1.0	-	-	**386**	**100.0**
15	Muslim philanthropists visit prisons/orphanages to preach Islam and celebrate the festival with the inmates	96	24.9	151	39.1	122	31.6	17	4.4	**386**	**100.0**
16	More marriages are contracted towards 'Īd-al-Adhā festival	93	24.1	205	53.1	67	17.4	21	5.4	**386**	**100.0**
17	'Īd-al-Adhā festival provide opportunity to visit parks, film and cinema houses	154	39.9	164	42.5	30	7.8	38	9.8	**386**	**100.0**
18	Community development meetings are sometimes fixed around the period of 'Īd-al-Adhā festival	90	23.3	133	34.5	90	23.3	73	18.9	**386**	**100.0**

19	There is usually traffic hiccups during the period of 'Īd-al-Adhā festival	170	44.0	198	51.3	12	3.1	6	1.6	**386**	**100.0**
20	Some communities celebrate other indigenous cultural festivals around the time of 'Īd-al-Adhā	88	22.8	91	23.6	108	28.0	99	25.6	**386**	**100.0**
21	Some youths engage is anti-social behaviours during *'Īd-al-Adhā* festival.	103	26.7	86	22.3	75	19.4	122	31.6	386	100.0



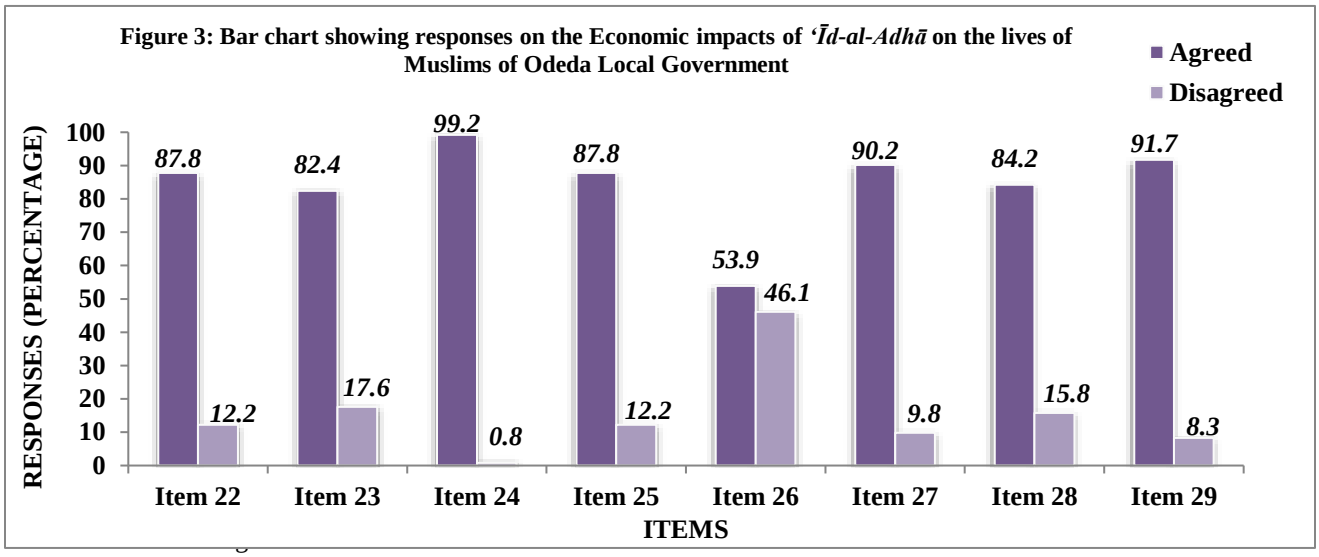
agreed that *'Īd-al-Adhā* festival provide opportunity to visit parks, film and cinema houses; 223 (57.8%) of the respondents opined that community development meetings are sometimes fixed around the period of *'Īd-al-Adhā* festival.

In addition, 368 (95.3%) of the respondents opined that there is usually traffic hiccups during the period of *'Īd-al-Adhā* festival; 179 (46.4%) of the respondents agreed that some communities celebrate other indigenous cultural festivals around the time of *'Īd-al-Adhā*. Finally, 189 (49.0%) of the respondents submitted that some youths engage is anti-social behaviours during *'Īd-al-Adhā* festival.

Research Question Three: What are the economic impacts of *'Īd-al-Adhā* on the lives of Muslims of Odeda Local Government?

Table 4: Economic impacts of *'Īd-al-Adhā* on the lives of Muslims of Odeda Local Government

S/N	Items	SA		A		D		SD		Total	
		N	%	N	%	N	%	N	%	N	%
22	There is always cash flow during *'Īd-al-Adhā* festival	171	44.3	168	43.5	41	10.6	6	1.6	386	100.0
23	Goods are hoarded by the marketers to be sold during *'Īd-al-Adhā* festival	151	39.1	167	43.3	59	15.3	9	2.3	386	100.0
24	Traders make more sales and profits during *'Īd-al-Adhā* festival	241	62.4	142	36.8	3	0.8	-	-	386	100.0
25	Islamic scholars and Alfas earn more during *'Īd-al-Adhā* festival	159	41.2	180	46.6	34	8.8	13	3.4	386	100.0
26	The poor Muslims get relief from *Zakat* and other generous acts of charities that are done during *'Īd-al-Adhā* festival.	129	33.4	79	20.5	140	36.3	38	9.8	386	100.0
27	There is always increase in transport fares during *'Īd-al-Adhā* festival.	260	67.4	88	22.8	27	7.0	11	2.8	386	100.0
28	Artisans hike their charges during *'Īd-al-Adhā* festival.	186	48.2	139	36.0	47	12.2	14	3.6	386	100.0
29	Hike in prices of goods and services always occur during *'Īd-al-Adhā* festival.	212	54.9	142	36.8	26	6.7	6	1.6	386	100.0



Findings from this study revealed that to a large extent, Muslims in Odeda Local Government Area of Ogun State have understanding of the concept of *'Īd-al-Adhā.* They agreed that piety and obedience to Allah's injunctions are the primary aims of *'Īd-al-Adhā* festival and that the festival is celebrated to mark the end of *Hajj* (holy pilgrimage to Makkah). These are in-line with the directive of Allah thus:

لَن يَنَالَ ٱللَّهَ لُحُومُهَا وَلَا دِمَآؤُهَا وَلَٰكِن يَنَالُهُ ٱلتَّقۡوَىٰ مِنكُمۡۚ كَذَٰلِكَ سَخَّرَهَا لَكُمۡ لِتُكَبِّرُواْ ٱللَّهَ عَلَىٰ مَا هَدَىٰكُمۡۗ وَبَشِّرِ ٱلۡمُحۡسِنِينَ٣٧

It is neither their meat nor their blood that reaches Allah, it is piety from you that reaches him. Thus have me made them subject to you that you will magnify Allah for His guidance to you and give glad tidings (O Muhammad) to the doers of good.

These findings are also in-line with the findings of Satt (2017) that one of the most influential festivals celebrated by Muslims across the globe is a sacrifice feast known as *'Īd-al-Adhā* which falls on the 10th day of Dhul-Hijjah (the last month of the Islamic calendar).

Findings also revealed that the Muslims of Odeda local government were aware that both male and female Muslims are permitted to attend and perform *'Īd-al-Adhā* prayer while wearing their new best dress. This is in-line with Almighty Allah's injunction as revealed in the Glorious Qur'an thus:

۞يَٰبَنِيٓ ءَادَمَ خُذُواْ زِينَتَكُمۡ عِندَ كُلِّ مَسۡجِدٖ...٣١

"O children of Adam! Take your adornment (by wearing your clean clothes), while praying…" (Qur'an, 7:31).

This is also in consonance with a hadith of the Prophet Muhammad (SAW) as narrated by Umm 'Atiyya thus:

"Our Prophet ordered us to come out (on 'Eid day) with the mature girls and the virgins staying in seclusion." Hafsa narrated the above-mentioned Hadliji and added, "The mature girls or virgins staying in seclusion, but the menstruating women had to keep away from the Musalla. (Khan, 1997, 2:67).

Also, findings revealed that only few of the Muslims in Odeda understand that chanting *Takbir* (glorifying Allah) en-route *'Īd* praying ground is one of the *sunnah* of Prophet Muhammad. This is however in-contrary to the injunctions of Allah in Qur'an 2 verse 185 thus:

وَلِتُكَبِّرُواْ ٱللَّهَ عَلَىٰ مَا هَدَىٰكُمۡ وَلَعَلَّكُمۡ تَشۡكُرُونَ١٨٥...

… And that you must magnify Allah [i.e. to say *Takbir* (*Allahu Akbar*; Allah is the most great] for having guided you so that you may be grateful to him.

Finding also indicated that Muslims in Odeda have partial understanding of the types of animals that could be sacrificed during *'Īd-al-Adhā* festival by submitting that only healthy sheep, goats and cows are permitted to be slaughtered for the festival. This finding can be buttressed with the submission of Ibrahim, Budisatria, Widayanti and Artama (2019) that Muslims traditionally slaughter animals such as sheep, goats and cows during *'Īd-al-Adhā* festival. However, they do not understand that other animals such as cattle, buffalo, and camels are also permissible to be offered during *'Īd-al-Adhā* festival. The reason for this may not be dissociated from the unavailability of these animals in the environment.

Concerning the health of the sacrificial animals, the prophet Muhammad (SAW) was reported to have said:

There are four types of sacrificial animals which are not permitted: A one-eyed animal which has obviously lost the sight of one eye, a sick animal which is obviously sick, a lame animal which

obviously limps, and an old animal which has no marrow. (Al-Athqalaani, 2010:239).
Ibrahim, Budisatria, Widayanti and Artama (2019) further submit that sacrificial animals must not have docked tails or broken horn, castrated, lame, cut or damaged.

In addition, findings revealed that Muslims in Odeda understand that slaughtering of sacrificial animals should be after *Ĭd -al-Adhaa.* This is in tandem with one of the *ahadiths* of the Prophet Muhammad (SAW) thus:
Prophet said (on the day of 'Eid-ul-Adha), "The first thing we will do on this day of ours, is to offer the (*'Eid*) *Salat* (prayer) and then return to slaughter the sacrifice. Whoever does so, he acted according to our *Sunnah* (legal way), and whoever slaughtered (the sacrifice) before the (*'Eid*) *Salat* (prayer), what he offered was just meat he presented to his family, and that will not be considered as *Nusuk* (sacrifice). (Khan, 1997; 7:267).
Findings from this study indicated both positive and negative social impacts of *'Īd-al-Adhā* on the lives of Muslims in Odeda Local Government Area of Ogun State. On the positive side, it was revealed that *'Īd-al-Adhā* provides avenue for more cordial relationship within the family and between Muslims and non-Muslims in the society. It was also discovered from this study that community development meetings are sometimes fixed around the period of *'Īd-al-Adhā* festival. These findings are in-line with the finding of Al-Hajieh, Redhead and Rodgers (2011) that during '*Ĭd* celebrations, family and friends gather together to celebrate the joyous moment and also the accomplishment of the previous month.

These findings can also be corroborated by the findings of Satt (2017) and Akanni (2007) that during the periods of Islamic festivals, there is increased opportunity for family members, old friends, and neighbours to meet and discuss important issues like employment opportunities for the members of the family and contribution towards community developmental projects respectively. These findings are also in consonance with the finding of Nasir (2018) that in Indonesia, Islamic festivals discourage segregation and promote community engagement through increased social interaction between people of different cultural, ethnic, and religious affiliation during the festive periods.
Also, it was revealed from this study that among the people of Odeda, '*Ĭd* creates interactive opportunities where many young Muslim men and ladies get to know one another more, and as a result of many get suitors of their choice, while more marriages among the Muslims are also contracted towards this period. These findings are in consonance with the findings of Akanni (2007) who confirmed that Islamic festivals provide a forum where marriage among people within a particular geographical area is contracted.

Finding from this study also revealed that some Muslim communities also celebrate other indigenous cultural festivals around the time of *'Īd-al-Adhā*. This is supported by the findings of Jimoh (2016) that the Epe Muslim community in Lagos Nigeria usually celebrate the *Kayo-Kayo* festival as part of *'Īd-al-Adhā* festival. This festival according to the author usually lasts for a week and involves among others Qur'anic and Islamic quiz competitions among the six wards of Eko-Epe community. This finding is also in-consonance with the findings of Fahn (2015) that the people of Ijebu land of Ogun state Nigeria also celebrate the *ojude oba* festival on the third day of every *'Īd-al-Adhā* festival. This festival is an indigenous festival that involves both Muslims and non-Muslims in Ijebu going to the *Awujale* (King) palace, singing and dancing with the principal chiefs of the town and riding on horses to pay homage to the king, no matter his religious affiliation.

However, this study further showed that the celebration of *'Īd-al-Adhā* festival among the people of Odeda is characterised by some anti-social behaviour and forbidden acts in Islam, such as alcohol consumption and persuading of rams to fight. This finding corroborated the findings of Akanni (2007) that during *'Ĭd* celebration in Nigeria, youths organise carnivals where lots of illicit behaviours and crimes such as blocking of main roads, consumption of different kind of hard drugs, fighting, pick pocketing, stealing or vandalising of vehicles and sexual abuse are perpetrated.

Findings from this research on the economic impacts of Islamic festivals revealed both positive and negative outcomes. On the negative part, it was discovered that hardly will there be any transaction during the Islamic festive periods among the people of Odeda that would not be accompanied by an element of economic hardship. This is evident in the responses of the respondents who confirmed that there is always incessant hike in transport fares, prices of goods, services while some traders even go to the extent of hoarding their goods. These findings are not in-contrary to the submissions of Faye, Laoussed, Maghrabi, Mansouri and Ladiray (2019) and Chowdhury and Mostari (2015) that during the period of 'Ĭd, there is usually a general increase in the amount of money and resources spent by individuals and families due to the incessant hikes in consumer prices, especially those of food items.

These findings are also supported with the findings of Salau, Anazie and Awodipe (2019) that during the period of *'Īd-al-Adhā*, there is an unnecessary hike in the prices of sacrificial rams and other perishables like peppers and tomatoes. This increase in prices of goods and services may not be unconnected with high materialistic tendencies and immorality of people, such as, insincerity, greediness, selfishness, and lack of passion for humanity which is however against the doctrine of Islam and the teachings of Prophet Muhammad (SAW).

5. Conclusion

From the findings of this study it is evident that, to large extent, the people of Odeda Local Government have the understanding of the concept of *'Īd-al-Adhā* festival. It is also shown that Islamic festivals have positively impacted on their socio economic lives, despite some visible challenges. It is therefore concluded that Islam is not a mere ritual activities, but also a comprehensive way of life that exerts great influences on every sphere of the society.

6. Recommendations

- The period of *Īd-al-Adhā* celebration should be a time of sober reflection about the teachings of Islam and *Sunnah* (traditions) of the Holy Prophet Muhammad (SAW) as this could make Muslims move closer to Allah through following of Allah's injunctions.
- Imams should include *Adaab* (etiquettes) of '*Ĭd* in their sermons periodically in order to continuously guide the Muslim populace towards engaging in appropriate acts and behaviours during *Īd-al-Adhā* as prescribed by Islam.
- Imams and Muslim organisations should make use of the media (print, electronic and mass media) to address the various anti-social and immoral problems associated with *Īd-al-Adhā* festival.
- Government should be more pro-active in eliminating the exploitation and extortion of innocent buyers by some traders and service providers who unreasonably hoard and hike their prices of goods and services during the *Īd-al-Adhā* celebration.
- Government should be more pro-active in maintaining law and order especially with regards to provision of adequate securities during Islamic *Īd-al-Adhā* celebration.

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Part Three
Demography

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Analysis of Trends of Building Construction Worldwide and The Global Implications

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Abstract. In every period to date, wastages in construction have remained a burden to all stakeholders in the built environment. Today, there is a modification in the construction process globally and this emphasizes the need for a healthier and more sustainable built human environment. This change in emphasis is noticeable partly because construction site waste management and minimization have rarely been planned for in the past few decades and ultimately may eliminate waste in the construction process. It has dramatically changed the urban landscape in recent times, especially in major cities in developed countries. Waste in construction occurs in a variety of ways, in a variety of forms, and in great magnitudes/degrees. For example, there are very few building operations that are absolutely waste-free. Contemporarily, reducing wastage across the building construction process has been discussed broadly in the scientific community by professionals in the built environment and of course by the general public. With the growing construction activities worldwide, it raises a swirl of questions, how did we get to this point, and are the alternatives more desirable? In answering this question, this paper identified and discussed extensively fifteen major distinct trends that are responsible for the wastage in building construction in most cities

Keywords: Trends, Construction, Construction Wastage, Worldwide, Global Implications

1. Introduction

Waste is an inevitable by-product of most human activity. Debris from construction sites ends up in landfills, uncontrolled sites or in other inappropriate places (Tongo, et al, 2020). Construction waste is a universal issue that matters to every single person in the world. This common practice causes a number of impacts on the environment, including pollution of air, surface water and underground water, risks to public health and loss of natural resources. This has geared the attention of scholars and policymakers in order to obtain long-running protection of the environment so that future generations can also make use of natural resources (Sustainable Industrial Design and Waste Management, 2007).

Throughout the world, the strongest demand for resources comes from construction projects, and the single largest waste stream is found in construction, waste generated largely by intensive construction activities, which account for 82.7% of all waste produced by economic activities globally (Eurostat, 2009). As a result of urbanization, construction activities are set to increase, and one of the greatest challenges facing the entire world is to become a "recycling society". From now on, all will have to take the necessary measures to ensure that, in years coming, 70% by weight of all non-hazardous waste from construction (with the exclusion of noncontaminated soil and rocks from excavation) are intended for reuse, recycling, and material recovery operations, including filling operations using waste to replace other materials.

The construction industry is labelled as one of the largest and most important industries; and at the same time the major consumer of natural resources and one of the largest polluters (Tongo, et al, 2020). Globally,

studies have confirmed that waste production is inevitable on a construction site even a modest site can produce huge volumes of waste (Environmental Recovery Corporation (ERC), 2021). These activities of the industry generate increasing magnitudes of waste which has created a bad image for the industry and also depletes the limited natural resources. The wastes generated by the industry have not been successfully managed, thus triggering significant health and environmental problems. Wastage on construction sites has become a scourge in the Nigerian construction industry (Adewuyi & Otali, Evaluation of causes of construction material waste - Case of Rivers State, Nigeria, 2013). In construction, 4-M (Material, Manpower, Money Machine) plays a crucial role.

Depending on the type of housing project, building materials account for 60 to 70% of the project cost. Through the material waste management function, we can reduce the overall project cost by waste minimization or maximum utilization of resources (Material) (Meghani, Bhavsar, Vyas, & Hingu, 2011). This delinquent has adversely affected the performance of many projects in Nigeria. A study by Adewuyi et al, (2013) cited Obiegbu (2002) perceived that wastage in construction firms has come to stay considering the fact that at least 5% is achieved when preparing the estimate for a project which is usually not adequate. Wastage can be seen in many ways in the particularity of construction works. In light of this, a very high level of waste is assumed to exist in construction. Although it is difficult to systematically measure all wastes in construction, partial studies from various countries have confirmed that waste represents a relatively large percentage of production costs. A wide range of measures have been used for monitoring waste, such as excess consumption of materials (Skoyles 1976; Bossink and Brouwers 1996), quality failure costs (Cnudde 1991), and maintenance and repair costs, accidents, and nonproductive time (Oglesby et al. 1989). There have been different descriptions of materials wastage in buildings projects by different authors.

Adewuyi et al, (2013) and Shen and Tam, (2002), defined materials wastage in buildings projects as the difference between the value of materials delivered and accepted on-site and those properly used as specified and accurately measured in the work after deducting the cost-saving of substituted materials transferred elsewhere in which unnecessary cost, building material wastage can be defined as the difference between the value of materials delivered and accepted on-site and those properly used as specified and accurately measured in the work after deducting the cost-saving of substituted materials transferred elsewhere in which unnecessary cost and time may be incurred by the material wastage.

Despite disparities in the construction projects, potential material waste is caused by similar inefficiencies in design, procurement, material handling, operation, or residual on-site waste such as packaging (Adeagbo, et al, 2016; Wahab & Lawal, 2011; Formoso et al., 1993; Gavilan and Bernold, 1994). However, this study will examine the causes or factors affecting construction material waste generation on building construction projects, and similarly considered and analyzed these factors statistically.

Poorly managed construction waste is contaminating the world's oceans, clogging drains and causing flooding, transmitting diseases, increasing respiratory problems from burning, harming animals that consume waste unknowingly, and affecting economic development, such as through tourism. The question often asked is how we get to this point of resilience and overreliance mode of construction. To answer this question therefore this paper identified and discussed extensively fifteen major distinct trends that are responsible for construction wastage in most cities of the world.

2. Literature Reviews

The activities in the building life cycle management entail a step-by-step development process. This involves putting together large quantities of resources and the employment of many people over some time to create a physical structure that is called a building (Farida et al. 2018). This consists of many parts that interrelate with one another and with the environment, leaving both physical and non-physical impacts due to its direct and indirect actions. According to Dahlbo, Bacher, Lahtinen, Jouttijarvi, Suoheimo, Mattila, Sirone, Myllymaa & Saramaki (2015), building construction activities globally consume about three trillion kilogrammes of raw materials annually with a large portion of them ending up as waste. The wastes from these activities are generated across the building life cycle stages (Dahlbo et al., 2015; Odusami, Oladiran & Ibrahim, 2012). Also, these researches reported that the system of procuring a building project generates wastes from all its processes which take time to realise and use (that is, both material and non-material resources) to generate direct and indirect costs without added value.

In recent years, different scholars around the world (Wang et al., 2014; Osmani, 2011; Kofoworola & Gheewala, 2009) have carried out several studies into the nature, cause, and impact of wastes from building procurement activities. Some of these studies aimed at the causes of waste and the environmental damage resulting from a large amount of waste generated. Others simply aimed at identifying measures for preventing and reducing material waste generation from procurement activities while a very small group of researchers concerned themselves with the cost implications of waste in building projects. In all, most of the studies reviewed in this study tended towards wastes emanating during the implementation/construction phase of the building process with little or nothing during the other stages. During the activities at the construction stage, the physical material bye-products generated are synonymous to waste. Generally, these studies established that building life cycle activities lead to the production of wastages. These activities are for simplicity referred to as off-site and on-site operational activities. The on-site activities of building construction are related to the development of a building. It includes the substructure and superstructure works of the building, while the off-site activities include the prefabrication of some components of the building to be delivered, project design (architectural and engineering designs) manufacturing as well as transporting of materials and components. According to Won and Cheng (2017), prefabrication of building components can reduce waste and ensures timely delivery of building projects, but it can lead to an increase in the cost of a building.

Wahab & Lawal (2011) described material waste generation as an inevitable by-product of the process of procuring a building project and that this is one reason why the quantity surveyors allow factors for waste in the pricing of the bill of quantities. Similarly, many studies across the globe report that the implementation stage activities of the life cycle of a building process generate the largest waste streams in the EU, accounting for between 25% and 30% of all waste generated. In the U.S., reports have it that over 100 million tons of waste are generated every year from construction activities and this amounts to approximately 30% of the entire solid waste stream, while in Brazil, it is between 20% and 30% when computed by weight of the total materials delivered on-site. In the United Kingdom, it is reported to be between 55% and 65% of the total material used for projects (Aleksanin, 2019; Pakhare, More & Bhalerao, 2017).

According to Obiegbu cited in Adewuyi & Otali, (2013), the material wastage from the implementation stage of the building procurement process has come to stay a norm in the construction industry. The study further reported that in principle about a 5% allowance is made for waste when pricing the bill of quantities (BoQ) for a building project. In some later study by Dajadian and Koch (2014), it was reported that in Nigeria the cost of only the materials used for constructing a building measures up to over 50% of the estimated total cost of the building and at least 20% of the building materials purchased for the works that are leftover at the end of the project. These leftovers may remain on the project sites unused and treated as waste that may never be accounted for. Building waste therefore in this study is referred to as any loss and/or inefficiencies originating directly or indirectly from building procurement and development activities. Such include design, tendering, construction, and habitation generating both direct and/or indirect costs and adding no value to the finished building project.

In conclusion, the rising rate of building development activities in Nigeria and many of the other developing countries following the population increase has resulted in an additional need for housing and other forms of building projects and insufficiencies in infrastructure provisions. These increases have inevitably led to the creation of huge amounts of building waste across the entire life cycle stages. Building waste generation has risen to reach a critical level to become a burden to the environment and the socio-economic conditions of many nations.

Table 2.1 shows the summary of findings on physical waste generation from the rest of the world by different researchers stating what is generated and/or what is delivered to the different landfill sites in percentages. From Table 2.4, it is seen that several (about 4 billion) tonnes of building waste which translates to about 40% of the municipal waste are generated and deposited at the various landfills globally (Kupusamy, Nagapan & Abdullah, 2019; Crawford, Mathur & Gerritsen, 2017; Becqué, Mackres, Layke, Aden, Liu, Managan, … Gr aham, 2016; Begun et al., 2006). Likewise, between 30%-40% of the building materials purchased for the works are seen to end up as waste on project sites (Kupusamy et al., 2019; Crawford et al., 2017). The building waste generation per the total weight of municipal waste received at the landfills in the industrialised nations is between 31-35% of all industrial waste within Europe (Aleksanin, 2019; Pakare et al., 2017; Eurostat, 2016; Department for

Environment, Food, and Rural Affairs (DEFRA, 2008).

Similarly, it is seen from Table 2.4 that, the building waste per the total weight of municipal waste received at the landfills is about 33% in the UK, 26-30% in the U.S., 35% in Canada, 42%-44% in Australia, and about 40% in mainland China (Aleksanin, 2019; Pakare et al., 2017; DEFRA, 2009; Kofoworola & Gheewala 2009. In Hong Kong, it is seen to have reached about 23% of the things deposited at the landfill (HKEPD, 2019), and between 15% and 30% in Kuwait, 75% in UAE, and 55% in the other Gulf countries (Gulf News, 2018). Additionally, Agyarkwa et al. (2012) reported that in Ghana between 5% and 27% of the total materials purchased in building projects are wasted, while Oladiran (2018); Adewuyi & Otali, 2013; Odusami et al., 2012 reported that in Nigeria, about 5% is allowed in the build-up of the unit rates used in pricing a bill of quantities (BoQ) as waste. Also, between 5% and 7.5% of the total materials purchased for a building project end up as waste on project sites in Nigeria depending on the type of work to be undertaken (Adewuyi & Otali, 2013; Odusami et al., 2012).

Table 2.1: Building and Construction Waste Burden

COUNTRY	BUILDING MATERIAL WASTE GENERATION	REFERENCES
All over the world	About 40% of the wastes received at the landfill sites are Construction and Demolition (C&D) wastes. And, 30-40% of building materials purchased.	Kupusamy et al. (2019); Crawford et al. (2017); Becque et al. (2016); Begun et al. (2006)
European Union	About 31-34% of the total waste disposed of in landfills is C&D waste.	Aleksnin (2019); Pakare et al. (2017); DEFRA (2012)
United Kingdom	At least 10-15% of all the raw materials purchased and delivered to most construction sites are wasted through damage, loss, and over-ordering. 33% of the total waste generated is C&D in nature and more than 50% of the total waste deposited at the landfill is C&D waste.	Aleksnin (2019); Pakare et al. (2017); DEFRA (2012); Kofoworola and Gheewala (2009); Keys et al. (2000)
United States of America	In the US, C&D waste makes up about 26-30% of the volume of material in the landfill yearly.	Aleksnin, 2019; Pakare et al. (2017); Al-Hajj and Iskandarani (2012)
Canada	About 35% of the volume disposed at the landfill is C&D waste.	Aleksnin (2019); Pakare et al. (2017); DEFRA (2009) ; Begum et al. (2009); Kofoworola and Gheewala (2009)
Japan	10-30% of the total waste received at the landfill sites, and 70% of all illegally dumped waste comes from construction activities since 2004.	Polat et al, 2017
China	About 29% of the world's total municipal. 40% of this fall within the C&D category, and around 30% - 40% of building materials used on construction projects end up as waste on building sites.	Aleksnin (2019); Pakare et al. (2017)
Hong Kong	About 5-10% of building materials end up as waste on building sites; this amounts to about 65% of the total waste generated, and 23% of this is deposited at the landfill.	HKEPD (2019); EPD (2016); Kofoworola and Gheewala (2009)
Australia	About 42-44% of the total waste generated is C&D in nature which translates to about 20-30% of the waste deposited at the landfill.	Kofoworola and Gheewala (2009)
Brasil	The average material wastage is between 20%-30%, depending on the building technology	Lafayette, Fernandes da Paz, Holanda & Costa (2018)
Kuwait	The country produces 15-30% of solid waste through construction activities.	Kartam, Al-Mutairi, Al-Ghusain and Al-Humoud, (2004)
GCC Countries	About 55% of the total waste stream is from construction activities.	Gulf News (2018)
United Arab Emirates	About 75% of the total waste stream generated in UAE is from construction projects.	Gulf News (2018)
Ghana	It is reported that about 5-27% of the total materials purchased in construction projects in Ghana end up as waste at the end of a project.	Agyarkwa, Agyekum and Adinyira (2012)
Nigeria	About 5% of the unit rates are for in the pricing of a bill of quantities (BoQ) as waste in Nigeria. Also, between 5-7.5% of the total materials purchased for the project end up as waste on projects sites in Nigeria depending on the type of work to be undertaken.	Oladiran (2018); Adewuyi and Otali (2013); Odusami (2013) Oladiran (2018)
Tanzania, Zambia, Zimbabwe, and Botswana	About 20-25% of building materials are wasted on construction sites.	Datta (2000)

Source: Adapted from Nagapan et al. (2011).

3. Materials and Methods

This study was conducted with a review of literature, and the use of a structured questionnaire and a field survey to practically identify the common trends shaping construction wastage in Nigeria and determine the implications of

this globally according to construction phases. A achieved this, a total of 96 building sites located in different 6 regions that made up Nigeria were visited. Some typical figures for the waste of some key construction materials are provided, and the main causes of waste in the sector are discussed.

4. Discussion and findings

To achieve the objective of common trends shaping construction wastage on a building project that is associated with waste generation, information from the respondents' responses to the questions on the sources of building material waste and the enormity of their contributions was analysed. The options ranged from none (1) to extreme (5), on a 5-point Likert scale and the mean scores were computed to rank the life cycle stages of building projects with the highest burden of waste. The means of the perceived burden of waste for each of the stages were recorded. The scores from 0 to 1.49, were recorded as 1 (none); 1.50 to 2.49 as 2 (little). The mean scores from 2.50 to 3.49 were recorded as 3 (moderate), 3.50 to 4.49, recoded as 4 (Great) and 4.50 to 5.00, recoded as 5 (extreme)

As shown in Table 4.1, the post-construction stage activities ranked 1st with the highest mean item score of 3.5172 implying that it is the stage associated with the highest amount of waste generation. The construction stage activities had moderate contribution and ranked 2nd with a mean score of 3.0672. Together, the post-construction and construction stages were perceived to account for many of the waste types (wires/cables wastes, ceiling wastes, PVC pipe wastes, paint/resin wastes, POP wastes, glass wastes, concrete wastes ferrous metal wastes, and wood wastes) generated in the study area. The relative contributions of the other stages are shown in Table 4.1. As many as 91.5% of the respondents rated the severity of waste contribution as moderate to extreme at the post-construction stage of the building life cycle process. At the construction stage, 82.6% of the respondents rated waste as moderate to extreme, while pre-design stage waste was rated the same by 73.8% of the respondents.

Table 4.1: Analysis of the Stages of Building Procurement Activities That Contribute to Waste Generation

Stages of Building Procurement	The burden of Waste in Percentage (%)							
	None	Little	Moderate	Great	Extreme	Total	Mean	Rank
Post-Construction	0.4	8.0	36.8	49.0	5.7	100	3.5172	1
Construction	0.4	17.0	58.1	24.5	0.0	100	3.0672	2
Design	4.7	27.1	41.5	26.4	0.4	100	2.9070	3
Pre-Design	3.1	23.1	63.8	10.0	0.0	100	2.8077	4
Pre-Construction	16.6	35.1	44.0	4.2	0.0	100	2.3591	5

The findings from the analysis of the stages of building procurement processes that contribute to building waste generation in the study area. By ranks the post-construction stage activities have the highest index of 0.784, hence, showing the highest affinity for waste generation. This is closely followed by the construction stage and the design stage with index values of 0.759 and 0.738 respectively.

5. Fifteen Most Common Trends Shaping Construction Wastage

The fourteen (14) variables in the research instrument relating to the factors affecting building material waste generation from the pre-design stage of the building life cycle process were factor analysed with varimax rotation. The analysis yielded five (5) extracted factors which altogether accounted for a total of 64.187% of the total variance explained for the entire set of variables (Table 4.2). Factor 1 was labelled **project constraints** due to the high loadings by the following items: time constraint; cost constraint; choice of procurement method; choice of consultant. This first factor explained 29.350% of the variance in the data.

The second factor derived was labelled **lack of clarity** due to the high loadings by the following items: undefined project scope; unclear brief/project definition; lack of early collaboration. The total variance explained by this factor is 11.307%. The third factor derived was labelled **non-inclusive project process** due to the high loadings by the following items: lack of contractors' early involvement; waste management not a design directive; expected very high standards. The variance explained by this factor is 8.479%. The fourth factor derived was labelled **unrestrained design process** due to the high loadings by the following items: last-minute client requirement; no specific waste minimisation directive given.

The variance explained by this factor is7.846%. The fifth factor derived was labelled **other pre-design factors** due to the high loadings by the following items: other pre-design factors. These include a lack of interest from the client and feasibility studies not able to identify waste. The variance explained by this factor is 7.205%. The commonalities, which can be regarded as indicators of the importance of the variables in the analysis are generally high (above 50%) across all datasets hence, the variables selected for this study are appropriate and relevant. The relative importance of the factors affecting waste generation from pre-design stage activities of the building construction process is shown by their Eigenvalues, which indicated that the time constraint variable is the most important factor that affects waste generation from pre-design stage activities.

Table 4.2: Rotated Factor Matrix to Determine the Factors Affecting Waste Generation from Pre-Design Stage Activities

Rotated Component Matrix

Factors / % Variance Rotation Sums of Squared Loadings	**Variables**	**Component**					
		Factor 1	**Factor 2**	**Factor 3**	**Factor 4**	**Factor 5**	**Communalities**
Factor 1: Project constraints (16.755%)	Time Constraint	**0.811**	0.038	0.054	-.0200	-0.007	0.663
	Cost Constraint	**0.697**	0.277	0.067	0.188	0.112	0.616
	Choice of Procurement Method	**0.541**	0.129	0.419	-0.046	-0.385	0.635
	Choice of Consultant	**0.432**	0.384	0.061	0.350	-0.234	0.515
Factor 2: Lack of clarity (Unclear Project Process) (14.860%)	Undefined Project Scope	0.044	**0.863**	0.079	0.185	-0.029	0.788
	Unclear Brief / Project Definition	0.372	**0.725**	0.011	0.104	0.055	0.678
	Lack of Early Collaborative Engagement	-0.068	**0.634**	0.514	-0.113	0.032	0.684
Factor 3: Non-inclusive Project Process (12.558%)	Lack of Contractors Early Involvement	0.037	0.146	**0.741**	0.075	0.181	0.610
	Waste Management, not Design Directive	0.306	0.091	**0.608**	0.271	0.016	0.545
	Expected very High Standards Procurement Process, not Client Driven	0.170	-0.157	**0.490**	0.306	-0.472	0.611
Factor 4: Unrestrained design process (12.067%)	Last-Minute Client Requirement	0.037	0.331	0.014	**0.775**	0.175	0.742
	No Specific Waste Minimisation Directives Given by the Client	0.235	-0.027	0.269	**0.754**	-0.140	0.545
Factor 5: Other pre-design factors (7.946%)	Other pre-design factors	0.109	-0.015	0.194	0.064	**0.761**	0.633
	Eigen Initial Values	4.109	1.583	1.187	1.098	1.009	
	% of Variance	29.350	11.307	8.479	7.846	7.205	
	Cumulative %	29.350	40.657	49.136	56.981	64.187	

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 9 iterations.

6. Global Implications and Recommendations

6.1 Global Implications

The construction sector contributes to 23% of air pollution, 50% of climatic change, 40% of drinking water pollution, and 50% of landfill wastes. This sector accounts for 40% of worldwide energy usage, with estimations that by 2030 emissions from commercial buildings will grow by 1.8%. Construction activity can "significantly change the surface of a land" due in large part to "clearing of vegetation and excavating" which is common on many construction projects. This means that the surrounding environments will be heavily polluted, particularly surrounding water pools, which have experienced an increase in pollution as a result of various construction projects in recent years.

Additionally, research by Kleiwerks says that building materials, such as concrete, aluminum, and steel, are directly responsible for "large quantities of CO2 emissions" due to high contents of "embodied energy content", with 9.8 million tons of CO2 generated from the production of "76 million tons of finished concrete in the US." Although the construction sector's current practices at reducing pollutants, or omissions, are massively ineffective and may even "generate high levels of greenhouse gas pollution." Worryingly enough, construction activities consume "half of all the resources" extracted from nature, and account for one-sixth of global freshwater consumption, one-quarter of wood consumption, and one-quarter of global waste,"

Globally, these numbers have not gone unnoticed, with different publications such as the Green Guide, the work of Oxford Brookes, and the UK construction industry, which lays out how construction firms can use materials in order to help the environment. Also, there are over 230, 000, publication guides on construction projects and waste minimization, and over a million construction firms awaiting certification worldwide. On countries basis, EPA oversees the protection of the environment and has a number of rules and regulations in place to ensure the construction industry can reduce its negative impact on the climate.

7. Recommendations

In order to ensure a sustainable, and healthy built environment, there should be a management directive regarding waste management plan development and engagement of experienced and qualified professionals. Site operatives and craft men should be aware, and proper training on how to reduce building waste should be done towards achieving a sustainable built environment.

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Climate Change and Human Security in Nigeria and Niger Republic

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Abstract. To a number of Nigerians climate change is a fiction or a phenomenon that is peculiar to developed countries. Some Nigerians that are now aware of it feel it is restricted to the field of Science. This study aims at broadening the knowledge of climate change in Nigeria and Niger Republic. Climate change will be shown to be a reality particularly in the Sahelian States of Northern Nigeria and that it has human security implications for the country in its relations with the Republic of Niger, its neighbor to the North. The qualitative approachwas used for this study. The research is carried out using relevant secondary sources such as textbooks, journals, and materials on the Internet. The study found out that climate change has critical human security impact on the countries under study and it is not a problem that one country can solve on its own as floods and droughts know no national boundaries. Therefore, the study recommends concerted effort and cooperation between Nigeria and Niger Republic in tackling the issues associated with climate change.

Keywords: Climate, Desertification, Food security, Health and Contiguity

1. Introduction

From time immemorial, Nigeria and Niger have been closely linked by history and geography. Geographically speaking, the area of Niger is a natural continuity of Nigeria. Needless to state the fact that greater portion of their territories and their peoples were part of the empires that succeeded one another in West Africa, particularly: the Mali, the Songhay, the Kanem-Bornu empires and the Hausa states. The 1,500-kilometre boundary covering the territories of Dosso, Tahoua, Maradi, Zinder and Diffa in Niger; Kebbi, Sokoto, Zamfara, Katsina, Jigawa, Yobe and Borno States in Nigeria are under the influence of the same geographical factors of climate and therefore, belong to the same geographical belt (Okali, 2004). For this reason, the peoples experience similar influences of climate and therefore their lives are shaped by the same factors of climate and environment. This influences the types of cultures that emerged and largely explains their similarities.

Like other countries of the Sahel, Nigeria and Niger are affected by the phenomenon of climate change, characterized by drastic reduction of rainfall, increase in the rate of dryness and heat, depletion in the amount of water, plant and animal resources—all resulting in a fast-developing arid environment. All or parts of twelve countries in West Africa are being affected: Mauritania, Senegal, The Gambia, Mali, Burkina Faso, Niger, Nigeria, Chad, Sudan, Ethiopia, Eritrea and Djibouti.

Climate is the synthesis of the weather in a given place over a period of about 30 years. The main elements of weather itself include temperature, rainfall, humidity, wind, sunshine, mist, haze and cloud. It is the collective expression of these elements over time that is described as the climate of a place. Climate change is thus a change in this collective pattern of expression, not just in one element of weather (Okali, 2004).Climate change is caused by the increasing concentration of greenhouse gases in the atmosphere. Greenhouse gases include any gas that is capable of absorbing heat. These gases serve as a source of insulation for the earth and without them the earth would be too cold to sustain life as we know it. The greater the concentration of these gases, the more heat they retain around the earth causing the earth to be warmer than it would otherwise have been. The result of this is different climatic events in

different places such as higher average surface and ocean temperatures, more rapid evaporation and rainfall, more variability and severity in floods and droughts, rising sea levels, and an extended range of tropical diseases (Melinda, 2005).

The main gas responsible for the most warming is carbon dioxide. It is emitted when fossil fuels like coal and oil are burned. Since the Industrial Revolution, fossil fuel use has increased significantly and this has added more and more of this gas into the atmosphere. For instance, the concentration of carbon dioxide in the atmosphere has increased by around one-third from 280 parts per million (ppm) in 1750 to 368ppm in 2000, an increase that was unprecedented (Aalst, 2006). Other greenhouse gases include water vapour, methane, nitrous oxide, ozone, chlorofluorocarbons (used in air conditioners, refrigerators, foams) and haloes (used in fire extinguishing equipment), significantly contribute to global warming by accelerating the depletion of the ozone layer meant to shield the planet from excessive heat (Onuoha &Ezirim, 2010).

If climate change is taking place as a result of human-induced increases in atmospheric concentrations of greenhouse gases leading to global warming, there are certain consequences that should arouse concern. Over the 20th century, global mean surface temperature increased by 0.6 ± 0.2° C (0.7° C in Africa), more than any other century in the last 1,000 years. More so, the average temperature of the Earth rising at least 1.4 – 5.8°C is faster than known for any previous period. The question is whether the planet Earth can adjust rapidly enough to this rate of change (Okali, 2004).

The countries of the Sahel are particularly vulnerable to the consequences of this warming. The vegetation cover of the Sahel is composed of bushes, grasses and stunted trees that increase in density as one moves southward. These countries not only share similar climatic conditions (the Sahelian climate), but their inhabitants also have a lot in common in terms of cultures and livelihood systems. These livelihood strategies include agriculture, livestock herding, fishing, short and long-distance trading, and a variety of urban occupations. Dryland crops such as millet, sorghum and cowpea constitute the staple foods of the populations while groundnut and cotton are the major cash crops. Farming in this region is almost entirely reliant on three to four months of summer rainfall, except along the banks of the major rivers, lakes, and other seasonal water courses, where some irrigation activities are undertaken. Livestock herding is a very important aspect of life and constitutes the major source of income in some areas (Kandji,Verchot & Mackensen, 2004)

The climatic events to be highly influenced in the Sahel region are the temperature-based and the rainfall-based events. The degree of temperature in the Sahel is projected to increase. Days with the temperature reaching 38°C or more could increase and the number of days with heat waves—prolonged period of abnormally hot weather—could increase as well. More so, a warmer climate in the Sahel would decrease the atmospheric moisture thereby reducing the chance of cloud formation and rainfall. A shorter rainfall season and less rainy days are also projected for the Sahel region (The Guardian, 2011).

Climate change is not new to West African Sahel and climatic variability became particularly pronounced in the twentieth century. The Sahel region experienced three major drought periods including 1910–1916, 1941– 1945 and the long period of sustained declining rainfall that spanned the 1970s and most of the 1980s and continued with some interruptions into the 1990s (Thébaud & Batterby, 2001). The drought was a dramatic episode for the young Sahelian nations. The annual rainfall values of 1983 and 1984 were among the lowest ever recorded in the history of the Sahel, but severe droughts also occurred in 1972, 1973 and 1977. In 1984, drought severely affected all countries from Mauritania to Ethiopia, including several bordering countries on the southern edge of the Sahel. In contrast, the 1973 drought was more localized and affected mostly Mali, Niger and Chad. This had devastating effects on local populations and livelihoods. An estimated 500,000 people died across the Sahel (Brown & Crawford, 2008).

Nigeria and Niger are contiguous countries that are under the influence of the same geographical factors of climate. Both countries experience drought that is caused by successive years of poor rainfall. The combined effects of overpopulation, poverty and unregulated border can exacerbate this climate-induced drought. As land becomes unproductive and previous settlements become unlivable as a result of harsh environmental condition, people are forced to compete for available arable land or migrate to new settlements. With the growing population, more land is being cultivated and less is available for grazing. The zone's vulnerability to conflict is heightened by unregulated border crossing between Nigeria and its equally dry neighbor to the north, Niger. Pastoralists from Niger, whose welfare depend on the protein and money provided by their livestock, often let the animals encroach on Nigerian farmland. As a result,

pastoralists relocate their herds in search of sustenance, often finding it in Nigeria. The natural result of this pressure on land is conflict between pastoralists and sedentary farmers.

Climate change and its impact have dominated international policy agenda and public attention in recent times reaching a peak at the United Nations Conference in Copenhagen, December 2009.The focus on the security implications of climate change has helped to bring climate change to the realm of international policymaking by placing it as a key threat to state and global stability. Building on his 2009 report on Climate Change and its Possible Security Implications, the then UN Secretary-General Ban Ki-moon declared in the Security Council in July 2011 that "climate change not only exacerbates threats to international peace and security; it is a threat to international peace and security (UNEP, 2011)

Climate change does not fit into the mode of traditional threats to national security, such as war, terrorism, insurgency, espionage or sabotage. Yet, its non-violent and gradual dynamics of manifestation serve only to disguise its impact on livelihoods, social order, peace and stability.Thus, there is a need for a transition from the narrow concept of national security to the all-encompassing concept of human security. Human security is a change from an exclusive stress on territorial security to a much greater stress on people's security and "from security through armaments to security through sustainable human development. More specifically, human security is considered in seven main categories: Economic, food, health, environmental, personal, community, and political security (UNDP, 1994).

Economic security requires jobs to secure an assured basic income. Food security means that all people at all times have both physical and economic access to basic foods. Health security is to provide healthy environment and health services to meet the challenges of poor nutrition, infectious diseases, and so on. Environmental security is concerned with lack of access to clean water, deforestation, sanitization, air pollution, natural disasters, and so on. Personal security is to protect human lives from threats of various kinds of violence by states and other groups. This includes categories like crimes, industrial and traffic accidents, threats to women, abuse of children. Community security is about threats like oppressive practices and ethnic clashes in traditional communities. Political security means the protection of human rights and democratization. Furthermore, as "global human security," the UNDP Report refers to unchecked population growth, disparities in economic opportunities, migration pressures, environmental degradation, drug trafficking and international terrorism (UNDP, 1994).

The concept of human security supplies "early warning indicators" to signal "the risk of national breakdown." Such indicators consist of deteriorating food consumption, high unemployment and declining wages, human rights violations, incidents of ethnic violence, widening regional disparities and an overemphasis on military spending. The Military Advisory Board in Virginia, in a report titled "National Security and the Threat of Climate Change" (2007) aptly interprets climate change as a "threat multiplier of instability." In this sense climate change is a threat to national security to the extent that it exacerbates tenuous security situations or induces new shocks, which significantly alter social order, constrict national revenue and unsettles the political system. Hence, climate change does not significantly constitute a threat in itself but when it interacts with other socioeconomic and physical factors existing in a state such as poverty, illiteracy, overpopulation, unregulated border, among others it can undermine the security of a country.

In an increasingly interdependent world, the ramifications of climate change for national security could be interpreted from two principal dimensions: internal and external. In terms of the internal dimension, the sources of the challenge posed by climate change are inherent in the environmental trends that are occurring in such a state and their impacts are limited to the state. For example, increasing drought in one part of a country as a result of climate change may lead to crop and livestock failures and loss of livelihoods; thereby exacerbating food insecurity and causing people to migrate to new areas for survival or to evolve other means of survival. Such adaptive behavior, which could be criminal at times, undermines national security just as resource-conflicts generated by the arrival of migrants in new areas of settlement pose threats to the stability of the host communities. In this sense, the impact of the drought generated or exacerbated by climate change occurred largely within the confines of the territorial limits of the state (Onuoha and Ezirim, 2010)

In terms of the external dimension, the threat may result from territorial contiguity (regional borders). For instance, prolonged drought in Niger Republic and the Republic of Chad, which share international borders with Nigeria, has generated effects that impinge on Nigeria's national security. Climate-

induced drought in Niger or Chad has caused food insecurity and unfavorable living conditions in some parts of these countries, forcing their nationals to migrate into Nigeria (Onuoha and Ezirim, 2010).

Understandably, when people no longer have access to basic necessities of life, such as water, food, shelter, or physical security critical for survival, they adapt by switching livelihood systems or migrating to greener pastures. In this context, the national security challenges emerge when the capacity of the receiving communities are stretched to a tipping point where interactions and relations become conflictual rather than cooperative. Consequently, this has to do with the carrying capacity of the recipient communities or states to accommodate high influxes of people for any given period of time. Under such circumstances, climate change-related cross-border migrations tend to cause instability and conflicts as demographic changes shift political, ethnic, or religious balances (Maybee, 2009). In this case, the impacts of climate change for national security in Nigeria are external and are made possible due to contiguous boundaries or territorial proximity.

2. Analytical Framework

The risks that climate change pose to human security arise from multiple and interacting processes. Those processes also operate across diverse spatial and temporal scales. High levels of complexity mean that no conceptual model or theory captures the full extent of the interactions between all of climate change, livelihoods, culture, migration, and violent conflict. However, the framework that will be used to analyze the relationship between ecology and security is the idea of a politics of scarcity (Dyer, 1996; Kegley and Wittkopf, 1997). This idea is very similar to the state-centric view of security. According to the theory of the politics of scarcity, scarcity may develop into international conflict when there is restricted access to vital nonrenewable and renewable natural resources such as oil, coal, water as well as food.

Thomas Homer-Dixon is representative of this school of thought (Homer-Dixon 1991, 1994). Other prominent environmentally concerned theorists and policy advocates who base their arguments in this conception of ecological security are Lester Brown and Jessica Mathews (Brown 1986; Mathews 1989). They stress that global environmental threats or social and/or political disorder can be caused by "environmental refugees" moving across national borders. Richard Ullman extends this concept of security to include natural disasters including earthquakes (Ullman 1983).

Homer-Dixon and other neo- Malthusian scholars rooted their perspective in the "ecoviolence" maxim that "shrinking resource pie" is supposedly fuelling violent civil conflict by aggravating strained social relationships among different groups sharing common natural resources. They posit that conflict is generated by the scarcity of natural resources in at least two primary ways. First, is the product of total population in the region and physical activity per capita and second, the vulnerability of the ecosystem in that region to those particular activities. For instance, desert encroachment on landmass may produce large-scale migration, which could create ethnic conflicts as migratory groups clash with indigenous (settled) populations. Within this paradigm, we must be aware of the role of population growth, demographic structure, and patterns of population distribution. (Simon, 1981; McNicoll, 1984; Ehrlich and Ehrlich, 1990).

According to Dixon (1994), the sources of environmental scarcity often interact in two distinct patterns namely resource capture and ecological marginalization. Resource capture depicts a situation where a fall in the quantity and quality of renewable resources can combine with population growth to encourage powerful or advantaged groups within a society to shift resource distribution in their favor. This usually produces acute environmental scarcity for poorer and weaker groups whose claims to resources are opposed by more powerful groups. On the other hand, unequal resource access can combine with population growth to cause migration to regions that are ecologically fragile, such as steep upland scopes, areas at risk of desertification, and tropical rain forests. High population densities in these areas, combined with a lack of knowledge and capital to protect local resources, causes severe environmental damage and chronic poverty. The second process is usually called ecological marginalization.

It is clear that many of the renewable resources that sustain life in Sub-Saharan Africa will come under increasing threat as a direct consequence of climate change. As temperatures increase and rainfall decreases, the availability of cropland, forests and water supplies will decline. As local demand for these resources outstrips the available supply, scarcities will ensue which could lead to social breakdown and violence. Resource scarcities can lead to violence because they create cleavages between groups competing over access to, or control over, the scarce resource. If this competition yields an

inequitable distribution of resources, aggrieved parties may turn to violence.

Climate change may exacerbate another underlying cause of violent conflict when viewed in the context of poverty. A large proportion of the population in Sub-Saharan Africa is employed within the agricultural sector of the economy. With rising temperatures and reductions in rainfall, growing seasons and crop yields will likely diminish thereby reducing employment prospects in the sector. Coupled with food shortages and lack of water, it is likely that the rates of poverty will increase. The role that poverty plays in violent conflict can largely be seen as a motivating factor at the individual level. Studies have shown that as people face the risk of poverty or a lack of economic opportunities, the likelihood of them joining an armed struggle increases. The decision to do so can ultimately be viewed as rational given that an armed group may provide them with some level of social status or personal enrichment. As such, they can be preferable alternative to impoverishment

3. The Threat of Climate Change in Nigeria and Niger Republic

3.1 Climate Change and Food Security

Globally, about 821 million people still go to bed on an empty stomach. Even more—one in three—suffer some form of malnutrition (World Food Programme, 2018). The Sustainable Development Goal of Zero Hunger by 2030 is becoming more difficult to reach. Africa's food security situation is particularly worrisome. Of the 36 countries worldwide currently facing food insecurity, 21 are African. More than 300 million Africans are chronically hungry — nearly a third of the continent's population. Of this number, at least 235 million are in sub-Saharan Africa, making it the region on the planet with the highest proportion of chronically hungry people (Kabasa & Sage, 2009). The unimpeded growth of greenhouse gas emissions is raising the Earth's temperature leading to more and more extreme weather events. Extreme weather events, such as high temperatures, heavy rainstorms, and droughts, disrupt crop production. Such climate changes, as well as the loss of land to desertification and increasing ocean temperatures are all elements impacting agriculture. Agriculture is highly dependent on water availability, and temperature change alters rainfall, evaporation, and soil moisture storage. With increasing temperature there has been an increase in water evaporation from the soils with no replenishment, as a result of a decrease in water table. The accelerating pace of climate change, combined with population and income growth, threatens Africa's rain-fed agricultural economy and food security.

Food security is defined as "when all people at all times have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary and food preferences for an active and healthy life" (Barnett, 2007). According to the 2005 assessment of the International Food Policy Research Institute (IFPRI), food security is achieved when households can reliably obtain food of adequate quality and quantity to support a healthy and active life for its members. International Human Rights law recognizes the right of all people to adequate food. Eradicating hunger also stimulates economic growth, as undernourished people have a reduced capacity for productive work. Large numbers of hungry people that are marginalized from work can also create social instability and conflict (Ugwuanyi, 2010).

Climate change will affect all four dimensions of food security: food availability, food accessibility, food utilization and food system stability. Availability relates to the production of food, in terms of its physical presence in a region. Crop productivity and food stocks, for example, relate to food availability. Access is characterized by the ability of an individual or household to obtain food. This depends on food prices, market accessibility, employment, and distribution of wealth. Utilization is the ability of humans to derive full biological benefits from food, based on nutritional value, socio-cultural value, and food safety. Food insecurity occurs when food systems are stressed such that food is not available, accessible, or utilization is constrained (Thompson et al. 2010). People who are already vulnerable and experiencing food insecurity are likely to be the first affected.

Sahelian northern Nigeria and the Niger Republic are regions highly vulnerable to climate change due to their geographic location at the southern edge of the Sahara Desert. Sahelian production systems are heavily dependent on rainfall: food crop production which is mostly rain-fed and livestock rearing. This dependence is further heightened by the fact that livelihoods in the Sahel are dominated by agricultural activities. Around two thirds of the population depend on agriculture for its livelihood with little or no diversification of other revenue sources. The recurrent droughts of the 1970's and 1980's led to massive losses of agricultural production and livestock; loss of human lives to hunger, malnutrition and diseases; massive displacements of people and shattered economies (Kandji et al., 2004). For

instance, during the 1972-1973 drought in northern Nigeria, about 300,000 animals died and farm yields dropped by up to 60% in Nigeria (Obioha, 2009).

In a study carried out by Ikuomola (2010) a common submission about climate change shows that staple foods of the people have changed with the climate. There are some food items that are no longer available in large quantity. An example is guinea corn, (a smaller variety of maize) used in preparing Tuwo Dawa. Instead, Tuwo Masara, a product from the cheap, bigger variety and readily available maize is today consumed. The high price of the preferred guinea corn (Sorghum) has been attributed to climate change. Also, the amount of produce harvested each year has reduced. According to Alhaji Lawali Zaiyana, former Sokoto State's Commissioner of Environment, farmers in areas affected by climate change who would usually harvest between 200 and 300 bags of millet and guinea corn every year, harvest between 20 and 30 bags (Daily Champion, 2010).

Niger's agriculture focuses primarily on subsistence farming and livestock exports. Over 80% of the Nigerien population is dependent on the crops produced. Niger's agricultural sector is pivotal to the country's economy, amounting to roughly 28% of GDP. The agriculture sector faces numerous challenges and is highly volatile and susceptible to differing weather conditions. Much of the agricultural produce is dependent on a small quantity of rainfall in order to germinate and grow. However, rainfall in Niger is highly unreliable with average rates of rainfall decreasing by over 70% (as it did in 2009) or rainfall failing altogether (MDP, 2010)

Climate change causes higher temperatures and humidity, a boon to pests. Several reports such as Afrol News and Humanitarian International reported that late in the main 2004 rainy season, locusts invaded the agro-pastoral and pastoral zones of Niger, causing substantial but very localized, damage to grasslands and crops. Likewise, the effect of pests was not only experienced by the farmers but the pastoralists who experienced a great loss in fodder, many of whom had to liquidate their cattle. According to a joint mission by Permanent Interstate Committee for Drought Control in the Sahel (CILSS) and some other organisations in October 2004 a fodder deficit in these pastoral areas was 154% greater than the 2000 deficit, and at 4,642,000 tons, was the largest fodder deficit in Niger's history. Locusts caused one-third of this deficit, and two-thirds was caused by drought (Samba, 2010).

The proliferation of pests and crop diseases (again originating with climate change) can hinder storage when the need arises because of temperature increases. The pests, in turn, attack crops and animals. The current warming trend hinders livestock production and reproduction by reducing animal weight gain and dairy production. As well, livestock are usually subjected to long treks to find water and grass in the more southerly areas of the country during the dry seasons. Warming trends also affect the growth of grain crops such as maize, guinea corn, millet, and rice, and makes storage of root crops and vegetables difficult (Ikuomola, 2010).

Climate change also affects the prices of agricultural commodities. In the Kano market of Nigeria, the wholesale price of maize increased by 28.0 percent in the first half of the year due to reduced 2012 supplies. However, prices plummeted by 43.6 percent between June and October as increased supplies from 2013 harvests came on stream, before re- bounding in November, when they rose by 22.6 percent Notably, despite a 30.9 percent period average decline in prices from January through to November, the prevailing 2013 prices were still above their 2012 levels (Chinganya, Strode, Crawfurd, Moratti & Schmieding, 2014).

Agricultural production and food security are particularly sensitive to climate variability. Climate change impacts are expected to further increase vulnerability. Climate change-induced yield declines will result in price increases for the most important agricultural crops — rice, wheat, maize and soybeans — with consequent higher feed and meat prices. The subsequent decline in calorie consumption is predicted to increase child malnutrition. Limited research, small holdings, poor infrastructure, susceptibility to drought and extreme weather events represent the principal causes of the threat of climate change to food security in Nigeria and Niger.

3.2 Climate Change and Health

Climate change affects the key determinants of human health – air, food and water. It also influences how frequently people are exposed to physical and biological risks, such as extreme weather and new diseases. Increase in temperature in the Sahel has direct impact on health such as increasing the occurrence of cerebro-spinal meningitis, and also increased incidences of heatstroke and heart and lung disorders. Scarcity of safe drinking water due to droughts is a major contributor to the spread of infectious and water-borne communicable diseases in Africa. Unsafe water and poor sanitation also

contribute to malnutrition, cholera and diarrheal diseases and increase in child mortality. Poor water and sanitation are linked to climate-induced droughts and floods, according to World Health Organization (WHO) and United Nations Children Emergency Fund (UNICEF), account for more than 20 percent of the burden of disease in Africa (Sewankambo, 2009). Diarrhea is the second leading cause of death for African children. The increased ultraviolet radiation exposure resulting from a depletion of stratospheric ozone may increase the risk of skin cancers and cataracts. It is also possible that increased exposure to ultraviolet radiation could elevate levels of Vitamin D, which had been associated with risk for colorectal cancer (Ministry of Health, 2012).
Also, changes in temperature and humidity provide or extend a favorable habitat for insects, such as mosquitoes, tsetse fly, tick, and other pests in areas where they hitherto existed. There has been a reported increase in the prevalence or outbreak of diseases, such as malaria, cerebral-spinal meningitis, and heat strokes in Nigeria. For instance, the World Health Organization (WHO) reported there were about 17,500 cases of "serious" outbreaks of meningitis in the northern part of Nigeria in early 2009. No fewer than 960 people died of the disease, especially in Bauchi, Gombe, Taraba, Yobe, and Zamfara States (This Day, 2009).

In Kano, apart from destruction of seeds, the movement of cattle along rivers and streams exposes them to various diseases, such as blindness (Trachoma) and Guinea worm (Dracunculus medinensis). This corroborates Mansur, et al (2007) findings in a survey of 34 communities in Sokoto state, where it was found that 81% of households had refuse and animal dung littered within their compounds. Sixty percent of children had 'unclean faces' and over 85% of households had no access to water within their vicinity. Till date Trachoma and glaucoma in northern Nigeria are still of public health concern. Apart from animal dung around sources of water supply, the long dry season, dusty and hazy weather conditions are major contributory factors fostering various health problems and new variants of pest and insects affecting agriculture in Nigeria. Only recently Nigerian Television Authority (NTA) weather forecast reported that for the first time in the history of Nigeria Maiduguiri, the capital city of Borno State had a temperature of 47°C, which was also linked to ailing health of the people and low crop yields (Ikuomola, 2010).

Many airborne diseases will thrive in those areas that become more arid due to drought and higher temperatures. Shortages of food or fresh drinking water will also render human populations more susceptible to illness and less capable of rapid recovery. Predictions are that the loss of healthy life years due to global environmental change (including climate change) is 500 times greater in Africa than in Europe, and yet health is widely recognized globally as a fundamental human right (Sewankambo, 2009). The excessive heat, increasing water stress, air pollution and suppressed immune system occasioned by climate change will result in increasing incidence of excessive death due to heat exhaustion, famine, water related diseases (diarrhea, cholera and skin diseases), inflammatory and respiratory diseases (cough, and asthma), depression, skin cancer and cataract. These health conditions cause human suffering, which in turn affects the effectiveness and productivity of the labor force.

3.3 Socio-Economic Implications of Climate Change

On the social level, climate change has impacted positively on Western education. The current trend of agricultural produce had made a lot of families to advise their wards to take to Western education so as to be eligible for government jobs. Also, the changes in weather and climatic conditions have brought a lot of techniques such as irrigation practices and fertilizer application into agriculture. Such changes are needed in modern day rearing of animals and cultivation of crops. While it was relatively easy for wealthy farmers to adjust and cope with changes in climatic variations, it was not the case with the poor who constitute the majority of farmers in Nigeria. Poverty plays a major role in the poor yield of farms. More so governmental agencies do not supply fertilizers, insecticides and pesticides when due (Ikuomola, 2010).

According to a farmer in Kano, the dry season lasts between November and March, but lately it starts earlier around September and the effect is still being felt till April/May. There is no gainsaying, the inhabitants feel the brunt, as the rate of hunger and begging has been found soaring in the last decade. The Almagiri system where children are sent begging all in the name of acquiring Islamic knowledge is a common sight in the north. This set of children have also been found to be used in fomenting trouble in most of the ethno-religious crisis in Northern Nigeria (Fakoya, 2009).

The FAO (2005) survey of the 36 states in Nigeria shows that the fraction of Nigerians who had been unable to afford food 'almost every month' between January and December 2005 was on the increase. Part

of the problem noted is rising food prices. For example, millet prices rose from about 30 Naira per Kg in January 2008, to about 50 Naira per Kg in December 2008. Prices of other staple foods such as rice and maize also grew alarmingly. In the short term, as noted above, some families did sell or lease their farmlands for survival.

Emphatically in Borno, Sokoto and Zamfara, trans-border crime, movements of people and goods have been on the increase. These states share boundaries with Republic of Niger. Over the years the Nigerian police have been complaining of the in-migration of Negerians into the country through these borders; so also is the case by Nigerien Gerdames. Since agricultural activities are declining, many individuals especially among youths and middle-aged men in Borno, intensified their effort in cross-border trade, and involvement in smuggling activities. Such smuggled items range from sugar, canned beef, alcohol and spirit; vegetable oil, soaps, drugs, textile materials and small arms (Akoroda, 2009).

Important to state also is the fact that most textile industries which also contributed a lot to employment opportunities in the past have packed up. Water shortage was pinpointed as the cause, which over the years has become a problem, not only for water-based industries but also for inhabitants. Water is a major resource needed in textile industries. The Nigerian Tribune noted that the only few surviving ones depend on generators and plants, with a snowballing effect on the cost of production and eventual closure and relocation of industries (Babagana, 2007). The collapse coupled with poor government policies on importation and high prices of locally produced goods have turned Nigeria into a dumping ground for all kinds of textile and fairly used clothes, boosted by activities of smugglers and trans-border crime (Afolayan, 2000).

The weather condition and its consequences were observed to have strained the relationship between Negerians and Nigerians on long time agricultural relations. Most Negerians come to Nigeria as laborers and farmers because desertification has had a long time effect on them as far back as the 1980s. Regarding the skills of hired farm laborers from neighboring countries it was observed that most Northerners prefer the labor of the Negerian because they are more knowledgeable in desert and dry season farming. However, farming is reducing; less of their labor is needed. This does not augur well with them too. Many of these Negerians are becoming aggressive and militant in nature because of the low patronage of their skills. Security report has also shown that most of the crisis occurring in the north have traces of Negerian Muslims (mostly youths) hired to fight against the Christians and non-Muslim population. The Boko Haram killings brought out these facts in Maiduguri and Jos crisis (The Guardian, 2010).

3.4 Climate Change, Violent Conflict and Armed Banditry

It is clear that many of the renewable resources which sustain life in Sub-Saharan Africa will come under increasing threat as a direct consequence of climate change. As temperatures increase and rainfall decreases, the availability of cropland, forests and water supplies will decline. As local demand for these resources outstrips the available supply, scarcities will ensue which could lead to social breakdown and violence. Resource scarcities can lead to violence because they create cleavages between groups competing over access to, or control over, the scarce resource. If this competition yields an inequitable distribution of resources, aggrieved parties may turn to violence. This notion as championed by Homer-Dixon and his associates has its root in the neo-Malthusian theory. According to Dixon and his associates, the decreasing availability of physical, environmental and land resources such as clean water, good agricultural land for arable and animal husbandry could create a condition of "simple scarcity", "group identity" and "deprivation" in the area, that may provoke violent conflicts of high magnitude due to population movements and scramble for the available resources (Obioha, 2008).

Another scenario which could lead to violent conflict as a result of resource scarcities revolves around the issue of migration. When facing scarcities in their homelands, populations may seek new opportunities by migrating to a different region or country. This could increase the risk of violent conflict in the receiving region as they would experience increased competition between natives and migrants over resources. The arrival of environmental migrants can burden the economic and resource base of the receiving area, promoting native-migrant contest over resources. Pressures are expected to rise with the number of migrants and residents, particularly when resources are scarce in the receiving area and property rights are underdeveloped. Moreover, when environmental migrants and residents belong to different ethnic groups, the migration may promote tension (Rueveny, 2007).

Climate change may exacerbate another underlying cause of violent conflict when viewed in the context

of poverty. As discussed, a large proportion of the population in Sub-Saharan Africa are employed within the agricultural sector of the economy. With rising temperatures and reductions in rainfall, growing seasons and crop yields will likely diminish thereby reducing employment prospects in the sector. Coupled with food shortages and lack of water, it is likely that the rates of poverty will increase. The role that poverty plays in violent conflict can largely be seen as a motivating factor at the individual level. Studies have shown that as people face the risk of poverty or a lack of economic opportunities, the likelihood of them joining an armed struggle increases. The decision to do so can ultimately be viewed as rational given that an armed group may provide them with some level of social status or personal enrichment. As such, they can be preferable alternative to impoverishment (Clendinning, 2012).
Like the broader West African Sahel, Northern Nigeria and Niger have suffered environmental degradation caused by successive years of poor rainfall and recurrent droughts, exacerbated by the combined effects of natural population growth and in-migration. With the growing population, more land is being cultivated and less is available for pasture and traditional land use systems that rely on mobility. As average rainfall decreases, pastoralists have migrated south into land occupied by sedentary farmers. While both pastoralists and sedentary farmers believe that water is a gift from God, the farmers believe that since they paid for the construction of the wells to serve domestic and irrigation needs, the pastoralists should not use the wells to water their cattle. The sedentary farmers also believe that the pastoralists deliberately bring cows to feed on their crops instead of grass. However, the pastoralists accuse the farmers of deliberately cultivating crops on the cattle paths in order to seek compensation from the pastoralists and increase their income, particularly during droughts. The perceptual difference of both groups appears to amplify the conflict situation (Nyong, 2007).

Climate-induced drought does not pose its greatest challenge on the desert edge, where few people live and there is little productive activity. Rather, attention is needed in higher rainfall zones where dense human and livestock populations put considerable pressure on the available resources. Displaced from their traditional habitat by the erosion of their resource base, the pastoralists from Niger increasingly push into Northern Nigeria. They enter the region as temporary refugees; some eventually settle and enter into competition with the host population, and many others simply to take to armed banditry and other crimes (Mamman & Peters, 2011).

According to the Police, there are three categories of armed bandits which include the local ones known as Kwanta Kwanta, the Udawa made up of foreign herdsmen who cross the border into Nigeria and the Tubawas who consist of Negerien and Chadian rebels that sneak into Nigeria through the porous borders in Yobe, Borno and Adamawa states. The threat posed by these migrants manifest itself in many incidences of armed banditry attacks in the North East zone of the country (Birai, 2011). The murder of over forty farmers in Taraba and Adamawa states in January 1998 marked the beginning of criminal activities against host communities. The death toll has reached over 1000 since then. Cross-border raids for cattle and for other property are launched regularly from time to time within the zone. It was reported that about1,230 livestock including 916 cattle, 264 sheep, 45 goats, six donkeys and three camels were recovered from fleeing Udawa cattle rearers in Gombe state (Mamman &Peters, 2011).

A review of some recorded incidents of armed banditry in the North East zone is necessary to highlight the gravity of the problem. Between December 1998 and early June 1999, over 100 persons were killed while huge amounts of money, livestock and other valuables were lost to the bandits. There were violent clashes in mid-December 1998 between Udawa herdsmen and farmers at Mai-Kawo, Dabba Dasa and Bane Dela/Tsando communities in Gombe state during which nine people lost their lives (Mohammed, 2011).

On January 1999, armed bandits suspected to be nationals of Niger and Chad Republics attacked some villages in Shangom Local Government Area (LGA), killing three persons and carting away large number of cattle. A few days later on 24thJanuary, a group of fifty armed bandits from Chad and Niger attacked a village in Billiri LGA of Gombe state killing four persons and torching several houses.

Again, in February 1999 a group of foreign bandits raided Ladu Dumba, a market in Abadam LGA, Borno, deflated the tyres of vehicles in the market and robbed their victims of considerable amounts of money and other valuables. During this incident, one person died while two others sustained injuries. Then on 23rd February, well-armed bandits, suspected to be nationals of Niger Republic of Tubawa and Dabawa origin, attacked indigenes of Zumiguin Yusufari Local Government, Yobe State killing two soldiers attached to the state anti-crime outfit. Later, on 9th April, about forty Tubawa armed bandits from Niger Republic and Chad that had earlier terrorized Plateau and Bauchi states descended on Gana and Zayi

villages in Fika LGA, Yobe state. On 3rd May, about 200 armed Fulani cattle rearers attacked Any LGA in Jigawa state and set several houses ablaze. During this attack three persons were killed while nine elders were wounded. The next day 14th June, about 500 cattle rearers armed with dangerous weapons raided some villages in Karim-Lamido LGA, Taraba state, killing one person and wounding the village head of Rafin Toba (Mohammed, 2011).

Climate change is no respecter of persons, states, regions or continents. Given the uniqueness of northern Nigeria and Niger, the security threat posed by climate change is dependent on a number of variables that may interact with the prevalent environmental stressor in the area. Climate change has and is still affecting farms and people in northern Nigeria and Niger economically, socially and otherwise. Incessant agitation for scarce fertile lands for farming between farmers and pastoralists in the two countries and the corollary effect on the number of displaced persons call for urgent attention.

4. Concerted Efforts at Mitigating Climate Change and its Effect in Nigeria and Niger

A project titled "Integrated Ecosystem Management of Trans-boundary Areas between Nigeria and Niger" was initiated by Nigeria and Niger, following the concern raised by both governments over persistent land degradation. Both countries noted that the trend had increased the vulnerability of the local communities to environmental change and were determined to reverse the trend through the project. The project is a Global Environmental Facility-funded project aimed at creating conditions for sustainable integrated ecosystem management and thereby improving livelihoods in areas covered by the Maiduguri Agreement between the two countries. The areas are the Komadugu-Yobe, Tagwai-El Fadama, Gada-Gulbin, Maradi, and Maggia-Lamido catchments (Agence de Presse Africaine, 2013)

The project is in harmony with the development priority thrusts of the two countries, particularly as it relates to their national efforts to reduce poverty and sustain the environment. The total value of the project was put at 29 million dollars. Global Environmental Facility (GEF), the main financier, approved the eight-year project in August 2005, while implementation started in April 2006. The first phase of the project that commenced in 2006 ended in June 2010 while NNJC was still negotiating with the principal donor GEF on the second phase. According to the Secretary General of the Commission Kabiru Garba, The Nigeria/Niger Joint Commission for Cooperation (NNJCC) launched the project with a sum of US$28 million. Garba indicated desertification, hunger and rural poverty as some of the problems affecting the ecosystem, and these were of great concern to the Commission (The Nation Archives, 2013). Also, Prof. Emmanuel Oladipo, Regional Coordinator, Nigeria-Niger Joint Commission for Cooperation (NNJC), said The Commission has so far spent five million dollars (about N585 million) on the Integrated Ecosystem Management in the trans-boundary areas (Agence de Presse Africaine, 2013).

Aid as an instrument of foreign policy became prominent in Nigeria's African diplomacy as from the early 1970s. In spite of the strongly humanitarian dimension of Nigeria's aid to Niger, there is no doubt that these were equally intended to promote harmony within the diverse security issues existent between them. Nigeria's aid has sought mainly to guarantee food security to this drought-stricken country. Apart from bringing immediate relief to the Nigeriens, the drought aid has always been intended to help Niger rehabilitate both its livestock and agriculture whose products find a ready market in Nigeria. In 1974, the Federal Military Government made a donation of various relief materials to the tune of 250,000 to the Republic of Niger (The Sunday Observer, 1974). Also, in 2000, the Federal Ministry of Health donated 50,000 doses of Cerebro Spinal Meningitis (CSM) vaccines to the Republic of Niger (The Guardian, 2000). In 2005, Nigeria delivered more relief materials to Niger. Niger Famine Relief Committee headed by the Speaker of the House of Representatives, Alhaji Bello Masari, delivered 30 trucks of assorted relief materials to the famine-stricken people of Niger Republic (This Day, 2005). Nigeria also in 2006, donated 1,000 pieces of Personal Protective Equipment (PPE) 20 knapsack sprinklers and 1,000 disposal bags to the Republic of Niger (The Guardian, 2006).

Most significant though is the industrial cooperation between Nigeria and Niger. In January 1972 Nigeria agreed to supply about 30,000 kilowatts of electric power to Niger from its Kainji dam. The construction of the grid through the 600 kilometres separating Kainji from Niamey and the greater part that runs through Nigerian territory has facilitated Nigeria's electrification program (West Africa, 1972). The success of this scheme no doubt influenced the two states to reach agreement in 1988 to construct a 132 Kilovolt-power extension project from Katina to Maradi in Niger (The Guardian, 1988). As part of the industrial cooperation, Nigeria has invested directly

in Niger's mining sector. Nigeria's participation in Niger's iron ore, phosphate and uranium mining is well within its overall objective of solidifying intra-ECOWAS links. At the same time Nigeria needs Niger's iron ore and phosphate for its Ajaokuta Steel Complex and fertilizer plant at Kaduna respectively (Nwokedi, 1992).

Desert encroachment on farmlands has forced a lot of youths and unemployed adults to migrate and seek non-agricultural employment in urban centers and neighboring countries as well as deviant survival strategies such as crime and prostitutions. Prior to the creation of the National Boundary Commission in 1987, Nigeria had entered into various trans-border cooperation agreements with the aim of curbing the menace of trans-border crime. One of such arrangements was the International Joint Patrol (IJPTL) Accord signed in Abuja in 1984. With the creation of the National Boundary Commission, Nigeria was able to introduce a well-articulated policy on boundary management. The Commission that serves as an advisory agency for government, assumed the coordination of the activities of government bodies, whose functions were relevant to boundary matters. There were various trans-border agreements between Nigeria and Niger that are under the purview of the Commission (Bobbo, 2011).

Under the auspices of the Nigeria-Niger Joint Commission for Cooperation (NNJC), the Committee of Experts alternates its yearly meeting in Nigeria and Niger. Some of the items that featured prominently on the Committee's agenda during the meeting held in Argungun, Kebbi State, in 1998 included: incessant raids by armed bandits on Nigerian villages along the border, and incursions of Niger security agents into the Nigerian territory along the border. The meeting among other things resolved to intensify cooperation between the two countries in the areas of exchange of information on security matters and to harmonise their regulations on car-theft and illegal receipt of vehicles. The Judicial Convention that would provide the legal framework for the regulation of these activities was signed by both countries in 1990 but was yet to be ratified by Nigeria (Bobbo, 2011).

5. Recommendations

The Nigerian and Nigerien political leadership should securitize the issue of environmental degradation in the country by paying increased legislative, policy, and fiscal attention on preserving the integrity of the environment. In addition, the security consequences of climate change should be fully integrated in the national security and national defense strategies in Nigeria and Niger to provide for proactive measures for responding to climate shocks that may come from the territorial borders.

Governments, at all levels (federal, state, and local) in both countries, must intensify action on promoting environmental education and monitoring as key interventions strategies for mitigating and managing climate change-related disasters. Environmental education involves a conscious effort aimed at imparting individuals with knowledge, skills, values, and awareness of the changes in the environment. Hence, environmental education, with specific attention on climate change, must be integrated in academic curricula of schools in both countries.

There is the need for the emergence of a community of climate actors, cutting across philanthropic individuals, civil society groups, faith-based organizations, academic institutions, community-based organizations, government agencies, and international organizations to lead the challenge of creating the necessary environmental awareness among the citizens. Avenues, such as schools, churches, village assembly, the mass media, the internet, and other for a of interaction and communication could be used to share information, ideas, and lessons that would help both the urban and rural dwellers, as well as literate and illiterate citizens, to better understand the changes in their environment and how to adapt indigenous knowledge and resources to withstand, cope, and recover from environmental hazards.

The federal government in both countries should move quickly to strengthen all environmental regulatory institutions and agencies in the country through enhanced capacity building, greater funding, and inter-agency collaboration to improve their effectiveness in preserving and monitoring environmental trends throughout the country. This would enable these agencies to offer professional advice to governments, organizations, communities, groups, or individuals regarding climate change-related developments in the country.The Nigerian and Nigerien government should increase funding of research, seminars, and conferences in the area of climate change to generate ideas, best practices, and technologies that could help protect and preserve the environment.

In addition to supporting and implementing international conventions and protocols (such as the Montreal, Kyoto and Paris Protocols) aimed at combating climate change, the Nigerian government

must begin to enforce stringent legislation for promoting environmental best practices in natural resource exploitation, such as ending gas flaring that contributes significantly to carbon emission. This should be complemented with greater investment on the development of other potential sources of clean energy, like wind power and solar energy. This will reduce the country's reliance on hydrocarbon fuels, such as petroleum products, coal, and fuel woods, which contribute significantly to carbon emissions. The creation of alternative means of generating energy will equally help to prevent wanton cutting of fuel wood as a source of energy by local inhabitants; an action that has greatly contributed to the increasing desertification in northern part of the country.

Nigerian government, in partnership with environmental groups and local communities, should undertake a national greening program to help protect and preserve the environment. The program should emphasize aggressive tree planting in the country, as well as the combating of bush burning and deforestation. Tree planting is one of the sustainable ways of controlling climate change because the growing of trees halts erosion and degradation, protects water resource, and reduces carbon emission.

Above all, the drought and flood do not respect national boundaries; therefore, stronger bilateral efforts by Nigeria and Niger should be encouraged in order to deal with the menace of climate change.

6. Conclusion

Climate change has been shown to be a reality particularly in the Sahelian states of Northern Nigeria and that it has security implications for the country in its relation with the Republic of Niger, its neighbor to the North. We have seen how these two countries are tackling the challenges posed by climate change individually and cooperatively. More so, climate change is not restricted to the field of science and only an interdisciplinary approach linking studies of environmental, political and socio-economic spheres can help one understand the full dimensions of this phenomenon. Added to this is that climate change is not a problem one country can solve on its own as floods and droughts know no national boundaries. Therefore, multilateral cooperation is necessary to combat climate change and its overall effect on livelihood in the Sahel region of Nigeria and Niger Republic.

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Household Waste Management Logistics Practice in Lagos Metropolis, Nigeria

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Abstract. Waste management is a major problem plaguing most cities in developing economies, including Nigeria. The issues of waste management, particularly in Lagos, Nigeria, are not unconnected to the unprecedented population increase with a poor integrative process of handling and transporting waste from points of generation to disposal, which in turn affects the healthiness of residents and the sustainability of the built environment at large. Based on this backdrop, this paper examined the household waste management logistics practice in the Lagos Metropolis. The primary data used consists of a questionnaire distributed to residents, supplemented by structured interviews with PSP operators and personal field observations. Systematic-random sampling was used to administer 694 units of the questionnaire. Findings revealed that organic (food) waste, which is mostly stored in drums, accounted for most of the generated household waste. It also revealed that transport distance and environmental attributes are the most important factors affecting the performance of waste collectors in waste management logistics. This study further revealed that PSP operational performance is far from being efficient as the volume of waste evacuated is low and the turnaround time of fleets is extremely high. Our study also revealed that transportation plays the most significant role in waste management logistics. Our study, however, recommends, among others, that the operations of waste management should not be limited to PSP operators but also involve the local government authorities, while improved quality of transport options and route optimization are recommended mechanisms for mitigating logistics weaknesses in waste management practices.

Keywords: Waste management, logistics, transport, private sector participation PSP and Lagos Metropolis.

1. Introduction

Waste management is a major problem plaguing most cities in developing economies, including Nigeria. Obviously, waste management issues, particularly in Lagos, Nigeria, are fast-increasing and the reason is not unconnected to the quagmires of waste logistics practices vis-a-vis poor integrative process of handling and transportation of waste materials from points of generation through inappropriate and unstandardized vehicles to the approved disposal landfills and/or the treatment and recycling plants, which in turn affects the healthiness of residents and the sustainability of the built environment at large. Waste management has always been a major challenge faced by urban dwellers around the world, most especially in developing nations (Abdel-Shafy & Monsour, 2018; Ayantoyinbo & Adepoju, 2018; Agarwal, Chaudhary & Singh, 2015; Miezah, Obiri-Danso, Kadar, Fei-Baffoe & Moses, 2015). Improper waste management and its defective logistics mechanism have become one of the major concerns globally, posing great danger to public health and the well-being of residents and visitors in the built environment.

The unprecedented growth of the population, rapid urbanization, a booming economy, an improved standard of living, and the influx of people to cities and other prosperous urban centres for greener pastures have always been contributory to an increase

in waste generation with attendant consequences in the cities (Yoada, Chirawurah, & Adongo, 2014; Abdel-Shafy & Monsour 2018). Also, it is not an overstatement that the economic and oil boom of the 1970s in Nigeria has led to the rapid growth of urban centres, an increase in standard of living, industrialization, and the migration of people from rural areas to cities, which has ultimately increased waste generation in the country. However, the need to take precautionary measures against health hazards and other environmental degradation associated with poor waste management processes, such as improper waste generation, collection, transportation, and disposal, highlights the need for holistic measures, particularly in fast-growing cities such as Lagos, Nigeria.

Regrettably, poor transportation and logistics systems as well as weak waste management mechanisms, especially in Lagos and other cities in the country, have been contributing to urban decay and the possible outbreak of communicable diseases (Fasina, Salisu & Akanmu, 2020; Adeosun, 2018). Worthwhile, the most salient issue in waste management remains the poor modus operandi of waste collection, handling, transportation, and disposal, which is also known as the waste logistics issue. Waste logistics is an integrative process that seeks to optimize the management of the flow of waste materials such as organic waste, plastic waste, waste paper, tin cans, electrical electronic waste, composite waste, hazardous waste, medical waste, and aluminum waste through single and multiple vehicles, collecting many different waste material types from the generating or supplier's point for drop off (Fasina et al., 2020). It also includes adequate handling at a range of waste management facilities such as dumpsites and landfills within urban and rural locations, ensuring the development and configuration of upstream and downstream waste transfer, treatment, and disposal mechanisms (Sanni, 2016).

Basically, improper and inaccurate understanding of factors of waste logistics vis-à-vis waste generation, information, sorting, collection, handling, inventory, transportation, disposal, and re-use ultimately impacted the overall waste management logistics, a situation attributed to inaccurate or failed logistics processes in waste management in the built environment. Generally, Afangideh (2012) states that problems associated with waste management logistics are greatly felt in all facets of the society of developing and developed cities. Such problems range from different components of municipal waste management logistics and they include but are not limited to lack of waste generation information, poor collection and storage facilities, deplorable transportation situation, inadequate and unsuitable transport facilities, poor route optimization, poor locational state and distribution pattern of disposal landfills, poor customer service and information, lack of inventory control mechanisms, poor waste marketing, and poor re-use or recycle mechanisms, which in turn can be summed up in one word, "waste logistics weakness".

Failure to understand and address waste logistics issues logically means that Nigerian cities will become increasingly polluted and unhealthy, as well as less functional and unsustainable. Consequently, Lagos, the most populous state and one of the fastest growing cities in the world, aside from being the commercial and industrial nerve of Nigeria (Oyesiku, 2017), has a huge burden of waste management infractions occasioned by defective logistics processes considering the fact that waste generation in the city is about 70%, while its disposal rate is just 30% (Edu, 2003; Ayantoyinbo & Adepoju, 2018). More so, the city lacks information on the inventory of waste generated and disposed of in all the government-approved landfills. This study is interested in how best logistics practices can be integrated into waste management in order to improve waste logistics quagmires in Lagos, Nigeria. Based on these considerations, this study evaluated household waste management logistics practice in Lagos Metropolis, Nigeria, with the overall goal of achieving and providing better waste logistics mechanisms to improve waste management, healthy living, and the built environment. In achieving this aim, specific objectives pursued were to examine the socio-economic characteristics of households representative in Lagos Metropolis; assess the nature and characteristics of household waste management in Lagos Metropolis; assess the performance of waste collectors in waste management logistics in Lagos Metropolis; examine the factors affecting the performance of waste collectors in waste management logistics in the study area; examine the logistics of waste generated and disposed in the study area; analyze the factors that determine the best practice of waste logistics in Lagos; identify the challenges faced by PSP operators in waste management in Lagos; and finally, Nigeria towards ameliorating the logistics weaknesses in waste management.

2. Literature Review and Conceptual Clarification

2.1 Literature Review

As the movement of goods and services is very germane to the economic development or growth of a nation, so also is the evacuation of unwanted or waste material from our surroundings. Waste is presumed to be any material flow that is rejected by society that needs to be safely evacuated and also remains an inevitable product or byproduct of human activities in space that poses any danger to humans and the environment (Adewunmi, Ogedengbe, Adepetu & Aina, 2005). Before waste can be transported from collection points to disposal sites, there must be efficient transportation and logistics means to use and with which physical distribution of garbage would comply. Undoubtedly, transportation and logistics are key factors in the waste management system.

Janusz and Mariana (2014) defined waste management logistics as the creation of a logistics chain to convey waste from point of collection to treatment or disposal point, while solid waste management is defined as things that connote waste generation, storage, collection, and transfer, transportation, processing, and disposal of waste in accordance with public health, engineering conservation, aesthetics, and other environmental considerations (Aribisala & Ikudayisi, 2012). Achi, Adeofun, Ufoegbune, Gbadebo, and Oyedepo (2012), identified problems associated with waste management logistics as the inability to determine an appropriate route to take, inadequate operational vehicles, and the location and allocation of sanitary landfills, which are inappropriate. It can be seen that transport functionality is very key, important and the most powerful tool in waste management.

Meanwhile, Aribisala and Ikudayisi (2012) observed that when solid waste, particularly organic solid waste (food waste), is wet or soaked with water, it takes more space and weight in transportation vehicles, resulting in more energy cost in fuel consumption and fleet costs. It is equally difficult to measure. Ayantoyinbo and Adepoju (2018) asserted the fact that for sustainable waste management to be achieved, transportation and logistics play a vital role, and further suggested two possible strategies for waste management logistics: either to allow waste to reach a sizeable volume before evacuation or to provide a rapid transport system for its removal. Ogra (2003) observed that through the help of Geographical Information Systems, one can be able to determine transport routes for efficient waste collection to reduce cost and increase efficiency. The use of technology is inevitable in waste collection logistics.

Also, Sinare (2017) noted that inadequate vehicles and unsynchronized transport systems to the system of waste primary collection and bulky waste storage facilities in Ambajogai city are a great bottleneck to efficient and sustainable transportation of refuse. It was also observed that operating vehicles were not covered with tarpaulin to prevent being blown off in the wind while on transit. Stojanovic and Knezevic (2017) explore in depth the importance of transport and the involvement of the informal sector in waste management. It was discovered that inefficient waste management logistics would give rise to high costs of waste management and inefficiency, hence the introduction and issuance of licenses by the government to private waste logistics providers to ameliorate the problems and inefficiency in that sector. Municipal waste collection and management connotes high operational costs in fleet management and the cost to the environment through the emission of obnoxious gases, noise pollution, and traffic (Faccio, Persona & Zanin, 2011).

It is worthy to note that, from the literature reviewed, there is a paucity of studies on the importance of waste logistics in the overall waste management mechanism and sustainable built environment in fast-growing cities. Based on this context, this chapter addressed logistics component issues such as the nature of waste collection and disposal; type of waste storage; frequency of waste collection (trip making); trip duration and trip distance by waste vehicle operators; number of fleet required to keep up with ever increasing waste generation; inventory of waste generated; and the effect of waste logistics and landfill locational impact on the built environment of Lagos Metropolis.

2.2 Conceptual Clarification

2.2.1 Concept of Logistics

Physical distribution as part of management science emerged in the early 1920's when it was realized that production efficiency through effective transportation and distribution processes, which had been the basis for competitive advantages among manufacturers, was taken over by the standardization of many fabrication processes that in-turn affected demand and supply chains globally (Benson, Bugg, & Whitehead, 1994). Logistics originated from the French word logistique, which means accommodation. According to EuPortal (2003),

logistics was originally used in the military to manage the flow of personnel and materials support for fighting troops, such as transportation, food, medical services, repair services, and so on.
Logistics is part of the supply chain process that plans, implements, and controls the efficient and effective forward and reverse flow (waste) and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customers' requirements. Logistics is, however, described as the entire process of materials and products moving into, through, and out of a firm or city. That is, it is a form of material management that describes the movement of materials and components effectively and efficiently at the right time, to the right place, and for the right person in the right manner. Inbound and outbound logistics are of two types. Inbound logistics covers the movement of material received from the start to the end of an assembly line of suppliers, while outbound logistics refers to the movement of goods outward from the end of the assembly line to the customer. Finally, supply-chain management is somewhat larger than logistics, and it links logistics more directly with the users' total communications network and with the firms' or cities' engineering (Benson et al. (1994).

Also, logistics is seen as the process of moving and handling goods and materials from the beginning to the end of the production, sale, and waste disposal processes to satisfy customers and add business competitiveness (Sanni, 2016). Somuyiwa and Oyesiku (2010) note that at every step in the logistics practice in any organization or city, there are costs involved resulting from the factors that determine logistics practice. However, the major cost drivers in logistics are transportation, inventory control and management, warehousing and storage, information flow technology and order processing, packaging and material handling, as well as customer service (Fig. 1).

Logistics, however, is the art of maintaining control over a worldwide supply chain by a combination of transportation, warehousing skills, distribution management, packaging, information technology, inventory management, and customer service as illustrated in Figure 1. Transportation, as one of the components of logistics, bridges the geographical gap and spatial dichotomies in the complex pattern of manufacturing centres, sources of raw material supplies, depot locations, and marketing outlets that are such ubiquitous features of the modern multinational company. Warehousing keeps goods of every sort, including municipal waste, from raw materials or source point to finished product for use point and also secures them in the gaps that separate production from consumption. Distribution centres accept and hold buffer stock until required and then route them to the factories, wholesalers, and retailers that require them.

Information technology keeps track of where everything is alert, those who need to be informed of amended instructions, documents, stock, orders, transit, arrivals, and departures. Inventory management oversees the control of ordering, storage, and use of components used in production as well as the control of the quantity of finished products for sale (Sanni, 2016). Packaging focuses on the technology of enclosing or protecting products for distribution, storage, sale, and use. Customers' information and services, which are the life blood of a modern organization, keep and control the transmission of information the stakeholders abound.

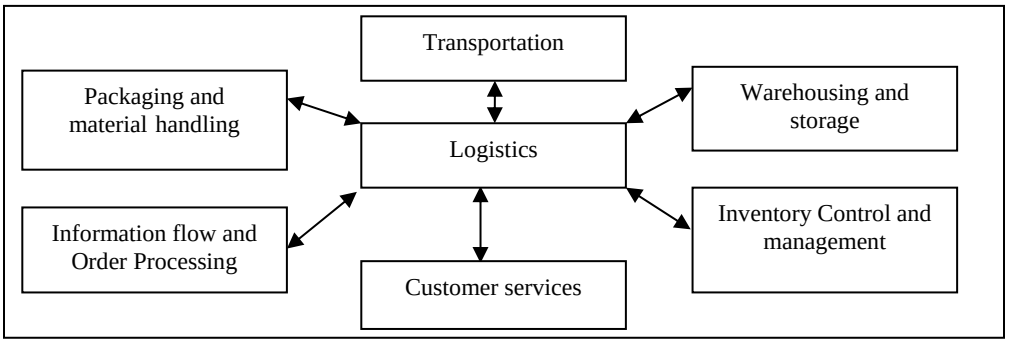

Figure 1: Component of Logistics System
Source: Adopted from Benson et al. (1994), pp. 159

3. Research Methodology

3.1 Study Area

Lagos is located at longitude 20º42ºE and 32^{0}2ºE and latitude 60º22ºN and 60º2ºN. It is bounded to the north and east by Ogun State, to the west by Benin Republic, and to the south by the Atlantic Ocean. The state covers an area of 358862 hectares, which represents 0.4% of Nigeria's territory (George, 2015). The state has two climatic seasons: wet (April-October) and dry (November-March), with swamp forest and mangrove swamp dominating. Lagos is a small city in Nigeria because of its landmass but with the highest urban population, which is 27.4% of the nation's estimated total, with twenty (20) Local Government Areas and a population of 9,013,534 (National Population Census, 2006).

3.2 Methods of Data Collection

The data sources for this research were obtained through primary and secondary data sources. Primary data was collected majorly through the use of a questionnaire administered to the household representative, complemented with an interview-guide administered to a private sector participation (PSP) representative in Lagos, Nigeria, as well as direct field observations conducted by the authors. The questionnaire administered to the household representative sought data on the socio-economic characteristics of the household, the nature and characteristics of waste management, the performance of waste collectors in waste management logistics practice, factors affecting the performance of waste collectors in waste management logistics, the logistics of waste generated and disposal methods, and the factors that determine the best practices of waste logistics in Lagos, Nigeria. However, the questions were close-ended in design and were mostly on a Likert scale of four-point response rating. The interview-guide administered to the representative of PSP sought information on the involvement of private sector participation (PSP) in waste logistics, the factors that determine the best practices of waste logistics, as well as the challenges faced in the logistics operation of waste management in the study area. Meanwhile, the researchers also observed the operation of waste disposal directly along and within sampled landfills or dumpsites during a field survey exercise conducted. In other words, the secondary data was gathered from both published and unpublished materials on related topics that were relevant to building both a literature review and conceptual clarification for the study.

Based on the information received from Lagos State Waste Management (LAWMA), there are three (3) government-approved sanitary landfills and two (2) temporary sites for municipal waste management in Lagos State. Two (2) out of the three (3) approved landfills, namely Olushosun in Ikeja Local Government Area LGA and Solous 3 in Ojo LGA, were randomly selected for this study. Consequently, these two are the most popular in terms of use and design capacity. This study is delimited to the radius of two Local Government Areas (Ikeja and Ojo) where the two landfills are sited in Lagos State as the focus areas for this study. Hence, the total number of buildings in the two selected LGAs in Lagos State serves as the population of the study area. The number of buildings in Ikeja Local Government Area according to the Lagos Bureau of Statistics (LBS, 2020) was put at 3,929 buildings with a population of 808,387 people, while Ojo Local Government Area, which hosts Solous 3 Landfill, has 2,767 buildings with a population of 963,215 people. This observed variation is not unconnected to the spatial features of the two selected LGAs.

The sampling size for this research work was drawn from the number of buildings in the study area of 3,929 in Ikeja and 2,767 in Ojo LGAs. A sample size formula was used to draw a sample from the study population. Taro Yamane's sample size formula is as follows:

$n=N/1+N*(e)^2$

Where n= the sample size, N= the population size and e= the acceptable sampling error.

A sample size of 694 buildings in the study area, accounting for 364 and 350 buildings in Ikeja and Ojo LGAs, respectively, was sampled. However, 694 copies of the questionnaire were administered to the household head or representative in the study area, out of which 678 (364 [Ikeja] and 314 [Ojo] copies, equivalent to a 98% response rate, were well completed, retrieved from the field survey and equally used for analysis. In other words, systematic-random sampling was adopted in sampling household representatives as respondents from the study population pool without bias. Through these sampling techniques, one (1) out of every five (5) buildings in the selected areas was picked for questionnaire administration. It is done by sampling every fourth (4^{th}) household representative systematically after the first is selected at random. The collected data was analyzed using both descriptive statistics. Descriptively, the data was presented in frequency percentage tables and charts, complemented with plates and figures to facilitate the

interpretation of collected data. However, the statistical package for social sciences (SPSS) version 21 was used in running the analysis.

4. Results and Discussion

4.1 Socio-Economic Characteristics of Residents

Out of 694 questionnaires administered, only 678 (Ikeja Local Government Area (Olusosun Landfill), 364 respondents, and Ojo Local Government Area (Soluos 3 Labdfill), 314 respondents) were duly filled and returned, making up 98% of the total questionnaire administered. It was observed that the majority of respondents sampled in both Ikeja LGA (female 57% and male 43%) and Ojo LGA (female 68% and male 32%) were female. The result shows that we have women as housekeepers while the males have gone out for their daily bread. Furthermore, it was observed that in Ikeja LGA, 76% of respondents sampled were between the ages of 46–65 years, while the majority in Ojo LGA were between 66–75 years.

The education attainment of the respondents revealed that the majority were educated, which accounted for 47% in Ikeja LGA and 54% in Ojo LGA. One can deduce that most of the respondents are conscious of things around them because of their educational attainment, and the management of household waste will not be a mirage to them. Furthermore, public workers account for 72% and 39% of those who are gainfully employed in Ikeja LGA and Ojo LGA, respectively, with private businesses accounting for 18% in Ikeja and 19% in Ojo, retirees accounting for 7% in Ikeja and 36% in Ojo, and the unemployed accounting for 3% in Ikeja and 6% in Ojo. Considering monthly income, the majority of respondents (59.2%) earn a monthly income of ₦25,001 to ₦125, 000 in Ikeja and Ojo. This result shows that the household has the tendency, propensity, and potential to generate more waste at present and in the near future, with attendant consequences. There is a need for the best possible framework and strategies for waste management logistics to meet up with ever increasing population growth and an increasing waste generation rate (Table 1).

Table 1: Socio–Economic Characteristics of Respondents

Variables	**Ikeja LGA**		**Ojo LGA**		**Grand Total**	
Sex	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Male	157	43	100	32	257	41
Female	207	57	214	68	421	59
Total	364	100	314	100	678	100
Age						
25 – 45	22	6	53	17	75	11
46 – 65	277	76	63	20	340	50
66 – 75	65	18	198	63	263	39
Total	364	100	314	100	678	100
Educational Status						
Tertiary	171	47	170	54	341	50
Secondary	127	35	104	33	231	34
Primary	04	01	25	08	29	05
Informal	62	17	15	05	77	11
Total	364	100	314	100	678	100
Employment Status						
Public	262	72	123	39	385	47
Private	66	18	60	19	126	27
Retired	25	07	113	36	138	20
Unemployed	11	03	18	06	29	06
Total	364	100	314	100	678	100
Monthly Status						
Below ₦25,000	11	03	25	08	36	05
₦25,001- ₦45,000	84	23	103	33	187	28
₦45,001-₦65,000	127	35	72	23	199	30
₦65,001-₦85,000	87	24	79	25	166	24
₦85,001-₦105,000	26	07	22	07	48	07
Total	364	100	314	100	678	100

Source: Authors Field Survey, 2020

4.2 Nature and Characteristics of Household Waste Management Logistics

Studying logistics practices of waste management in a city requires total understanding of the nature and characteristics of waste management vis-à-vis the type of waste, method of household waste storage, household waste collection means, and method of household waste disposal and means of waste disposal. It is worth noting that Table 2 revealed the

findings related to the nature and characteristics of household waste management in the study area. Findings revealed that food waste is the most generated waste in Ikeja LGA (58%) and Ojo LGA (54%), closely followed by plastic waste in Ikeja (31%) and Ojo (32%). Liquid waste related-waste generated usually from kitchen and laundry as well as electronic waste are of minimal percentage. The use of drums in waste collection and storage ranked 1st in Ikeja LGA (40%) and in Ojo LGA (54%). Storage through polythene bags with 34% ranked 2nd in Ikeja LGA and in Ojo with 28%. The observed variance in waste collection methods may be attributed to the cultural practice and the choice of the residents.

Methods of waste disposal are majorly through Private Sector Participation (PSP) Operators (Ikeja LGA, 65% and Ojo LGA, 48%). Cart pushers accounted for the least methods of waste disposal in the study areas (Ikeja LGA, 9% and Ojo LGA, 15%). While personal methods, that is, households that dispose of their daily generated waste personally without involving PSP operators or cart pushers, The personal methods accounted for a significant percentage and scored second place both in Ikeja (26%) and Ojo (37%) LGAs (Table 2). In other words, further investigation conducted on the personal methods of waste disposal of the residents shows that respondents who engaged in this practice mostly disposed of their waste directly to the dumpsite (73% in Ikeja and 82% in Ojo LGAs). This method of waste disposal can be adjudged as the most commonly used or traditional method of waste disposal in developing countries in Africa and Nigeria. Burning of waste through incineration takes the second place of the personal waste disposal methods engaged by respondents (Ikeja LGA, 22% and Ojo LGA, 13%).

Out of the total daily waste generated, the range-volume between 121kg and 160kg accounted for the most generated waste in Ikeja LGA, while a range-volume between 80kg and 120kg ranked the highest in Ojo LGA (Table 2). Meanwhile, the range-volume of less than 80 kg scored the least percentage of waste generated both in Ikeja LGA (07%) and Ojo LGA (07%). Furthermore, the household waste disposed by PSP operators is majorly transported through the use of compactors, accounting for 47% in Ikeja LGA and 66% in Ojo LGA. This is closely followed by covered trucks (30%) in Ikeja LGA and (22%) in Ojo LGA. The high usage and adoption of the compactors in the study area can be attributed to the safe and compact nature of the vehicle when on transit. The garbage is not blown off by wind, and the offensive odour of the garbage is confined within the compactor.

Table 2: Nature and Characteristics of Household Waste Management Logistics

Waste Management Indicators	**Variables**	**Ikeja LGA**		**Ojo LGA**	
		Freq	%	Freq	%
Type of Waste	Plastic	113	31	100	32
	Food	211	58	170	54
	Electronics	11	03	22	07
	Liquid	29	08	22	07
	Total	364	100	314	100
Methods of Household Waste Collection/Storage	Polythene Bags	124	34	88	28
	Drums	146	40	170	54
	Sacks	29	08	44	14
	Dust Bin	65	18	12	04
	Total	364	100	314	100
Volume of Daily Waste Generated	<80kg	26	07	22	07
	81-120kg	04	01	111	35
	121-160kg	295	81	107	34
	>160kg	39	11	74	24
	Total	364	100	314	100
Waste Disposal Means	Cart Pushers	32	09	47	15
	PSP Operators	237	65	151	48
	Personal methods	95	26	116	37
	Total	364	100	314	100
Personal Methods of Waste Disposal	Dumpsites	70	73	95	82
	Incineration	20	22	15	13
	Composting	5	05	6	05
	Total	95	100	116	100
Vehicle Used to Transport Waste by PSP Operators	Compactor	171	47	207	66
	Covered Trucks	109	30	69	22
	Articulated Van	47	13	22	07
	Open Truck	37	10	16	05
	Total	364	100	314	100

Authors Field Survey, 2020.

4.3 Performance of Waste Collectors (PSP Operators) in Waste Management Logistics

The performance of the PSP operators, who are the government-approved public waste collectors, was assessed by the residents in Table 3. Findings revealed that the majority of the respondents, 68% in Ikeja and 79% in Ojo LGA, assert that PSP operators only collect waste just once a week, while 26% and 12% in Ikeja LGA and Ojo LGA, respectively, are of the opinion that the PSP operators only show up twice a week. From the results, it is clear that the waste collection pick-up time by the operators is very poor, as the observed delay in waste collection leads to unwanted littering of the environment with garbage and other types of waste. In other words, in the quest to investigate from them the cause of the delay in pick-up time, they attributed it to waste collection payment as PSP Operators timely collect the household waste of those who regularly pay the monthly fee (over 70%) both in Ikeja and Ojo LGAs (Table 3). We can deduce that PSP operators are only concerned about their payment rather than the collection of waste generated. Invariably, this contributes to why there is always a heap of refuse in the streets and road medians unattended over a period of time. Considering the charges paid by residents on weekly generated waste, those who reside in a block of flats who are the dominant (55% in Ikeja and 48% in Ojo) pay as high as #700, residents of a single room (the least dominant in Ikeja at 13%) pay #200, while residents who operate a local shop attached to a residential building (the least dominant in Ojo) pay #300. Meanwhile, findings on the availability of transfer loading stations in close proximity to residents show that the majority (80%) of the residents of Ikeja have access to close-range transfer loading stations.

Table 3: Performance of Waste Collectors (PSP Operators) in Waste Management Logistics

Variables	**Ikeja LGA**					**Ojo LGA**			
Pick Up Time	Weekly Operation	Freq	%	Monthly Payment	Freq.	Freq	%	Monthly Payment	Freq.
	Once in a Week	248	68	Regular	75	248	79	Regular	80
	Twice a Week	95	26	Not regular	25	38	12	Not regular	20
	Thrice a Week	21	06	Total	100	28	09	Total	100
	Total	**364**	**100**			**314**	**100**		
User Charges/Billing	Flat	200	55	#700/Flat	#140000	151	48	#700/Flat	#105700
	Tenement Building of Eight Rooms	47	13	#200/room	#75000	88	28	#200/Room	#140800
	Shops	117	32	#300/Shop	#35100	75	24	#300/Shop	#22500
	Total	364	100		#250100	314	100		#269000
Is there any Transfer Loading Station close to you?	Yes	80	22			38	12		
	No	284	78			276	88		
	Total	364	100			314	100		

4.4 Factors Affecting the Performance of Waste Collectors in Waste Management Logistics in the Study Area

The factors affecting the performance of waste collectors in household waste management logistics in the study area were examined based on the perception of the residents who evaluated the performance of the PSP operators. The analysis was conducted using the Perceived Severity Index (PSI) based on the 5-point Likert scale gradation values consisting of Not at all a problem (N = 1), Minor Problem (MIP = 2), Moderate Problem (MP =3), Serious Problem (SP = 4) and Very Serious Problem (VSP = 5). For ease of measurement, the severity was measured using an index tagged PSI. To arrive at the PSI, a weighted value of 1, 2, 3, 4, and 5 was attached to each of the ratings as listed above, and the summation of the weight value (SWV) was obtained. The SWV was arrived at through the addition of the product of the number of responses to each aspect and the respective weight value attached to each rating. This is expressed mathematically as thus:

SWV = $\sum_{\mathrm{l}=1}^{5} X_i\, Y_i$

Where:

SWV = Summation of Weight Value,

X_i = number of respondents to rating i

Yi = the weight assigned a value (i= 1, 2, 3, 4, and 5)

The SWV was then divided by the number of respondents to arrive at each perceived severity index (PSI). The analysis, which was expressed quantitatively as 'PSI' = $\frac{\mathrm{SWV}}{\sum_{\mathrm{i}=1}^{5}\ i=X_i}$. Using the above analytical method, the mean index presented in Table 4 revealed 3.1249, and this was used to compare the

severity of all variables under consideration. Accordingly, Table 4 shows that transport distance covered (3.8879), environmental attributes (3.8097), inadequate waste transfer stations in close proximity (3.7301), irregular financial commitment of residents (3.6077), and local customs and cultural practices (3.1222) are major factors affecting the performance of waste collectors in waste management logistics across the study area. However, poor facility funding support (2.8864), PSP operator attitude and excess (2.8732), poor waste sorting and storage (2.5015), poor community awareness and input (2.4749), and law and policies governing coverage areas (2.3156) were the factors that had the least impact on PSP operation in waste management logistics activities in the study area.

Table 4: Factors affecting the performance of waste collectors in waste management logistics

Factors	NAP	MIP	MOP	SP	VSP	TWV	RIM	MIV	RK
Inadequate waste transfer stations in close proximity	21	80	408	1540	480	2529	3.7301		3
Poor community awareness and input	258	298	207	380	535	1678	2.4749		9
Poor waste sorting and storage	344	180	33	104	1035	1696	2.5015		8
Law and policies governing coverage areas	273	340	237	240	480	1570	2.3156	3.1249	10
Transport distance	67	0	0	1944	625	2636	3.8879		1
Poor facility funding support	186	232	267	652	620	1957	2.8864		6
Local customs and cultural practices	135	28	843	408	730	2144	3.1622		5
Environmental attributes	61	242	162	368	1750	2583	3.8097		2
Attitude and excess of the PSP operators	135	290	612	236	675	1948	2.8732		7
Irregular financial commitment of residents	18	292	357	784	995	2446	3.6077		4

Authors' Survey, April (2020)

4.5 Activities of Private Sector Participation (PSP) in Waste Management Logistics

4.5.1 Logistics of Waste Generation and Disposal by PSP Operators

Further investigations were conducted to understand the logistics of waste generation and disposal based on the structured interview conducted with the PSP operators covering Ikeja and Ojo LGAs in the study area. According to Table 5, the total monthly household waste generated in Ikeja LGA was 1,555,254.5Kg (1555.3metric tons) and 1,233,459Kg (1,233.5metric tons) in Ojo LGA. Also, from the results presented in Table 5, the majority of households' waste generation per week ranges between 121kg and 160kg in study areas. This is due to the fact that the majority of respondents are working class and earn above the just newly introduced #30,000 minimum wage in Nigeria. If the recent population growth rate of Lagos is anything to go by, by the year 2025, waste generation might have tripled, hence the need to have a proper and functional waste management strategy and system to keep pace with the trend. An interview with Private Sector Participation (PSP) drivers/operators revealed that it takes an average of 3.7 hours for a compactor or garbage truck to load and offload garbage at Olusosun due to traffic gridlock and the unbearable terrain at the landfill. The waiting hours at Olusosun Landfill to offload a compactor is about 2 hours and 30 minutes. Also at Solous 3, to load and offload trucks takes an average of 7 hours for just a trip. The situation at the Solous 3 Landfill is so terrible that it takes almost 6 hours to offload when at the dumpsite due to the poor road situation within the dumpsite and the nature of the terrain. When comparing the situation at both landfills, it is easier to dump at Olusosun Landfill with less time than Solous.

The weekly expenditure on fuel, vehicle operation and maintenance were #7533 and #1733, making a total sum of $19666/day in Ikeja LGA as against #9433 and #6500, making a total sum of $15933/day in Ojo LGA. This is caused by the long distance travelled between the waste generation point and the landfills. The cost incurred by PSP operators is very high and this might put them out of business if the government did not intervene in providing subsidies and reductions in charges paid to the government. There is a great concern that these heavy trucks might have an adverse effect on the environment due to their high fuel consumption and poisonous gases emitted by the trucks. The study revealed that, to achieve an effective waste management system, route optimization and fleet optimization are inevitable to reduce operational costs incurred by PSP operators. It is worthy of note that out of 16 official dumpsites in Lagos, only five (5) are very active till date. They are: Olusosun, Soluos 2, Soluos 3, EwuElepe and Epe. And non-functional dumpsites are: Solous 1, AbuleEgba, Owutu, Ogombo, Anthony Village, Isolo, Makoko, Adeniji Adele, Agunlejika, Omole, and Billings Way. Furthermore, waste is stored mostly through steel, concrete, or synthetic containment either in our homes or at the designated points around town for onward transfer to the landfills. Earthen impoundments are used for the

storage of animal waste, while waste holding ponds are used to store storm water runoff, which should not be allowed to flow uncontrolled into the external environment because the runoff contains organic substances that are very harmful.

Table 5: Logistics of Waste Generation and Disposal

Variable	Indices	Ikeja LGA		Ojo LGA	
		Average Waste (Daily)	Average Waste (Monthly)	Average Waste (Daily)	Average Waste (Monthly)
Volume of Waste	< 80kg	2,080	64,480	1,760	54,560
	81-120kg	402	12,462	11,155.5	345,820.5
	121-160kg	41,447.5	1,284,872.5	15,033.5	466,038.5
	> 160kg	6,240	193,440	11,840	367,040
	Total	50,169.5	1,555,254.5	39,789	1,233,459
Turnaround Time of Truck	2 Hours	6	40	-	-
	4 Hours	5	33	-	-
	6 Hours	4	27	7	47
	8 Hours	-	-	8	53
	Average Turnaround Time	3.7 Hours		7.06 Hours	
	Total	15 PSP Operators		15 PSP Operators	
Route Optimization	Average fuel consumption/5km	40liters		53liters	
	Average Cost of Vehicle Repair/Day	#11,733/Day		#20,950/Day	

Source: Authors Field Survey, 2020

4.5.2 Frequency of Waste Collection by PSP Operators in Ikeja LGA and Ojo LGA

Total waste generated in Ikeja and Ojo shows that not all the waste generated monthly is totally evacuated by PSP operators. The findings presented in Table 6 show that a total of 1555.3metric tons were generated in Ikeja and only 615metric tons were evacuated with forty-one (41) trips using garbage trucks of 15-ton capacity, and the left-over of 940.3metric tons was unattended to. Also, at Ojo, the total waste generated is 1233.5metric tons and 870metric tons are evacuated with 58 truck trips in a month with left-over waste of 363.5metric tons. To successfully evacuate waste in Ikeja LGA without left-over, the operators needed to make a trip of at least 104 trips per month to evacuate 1555.3metric tons, while Ojo needed 82 trips to evacuate a total waste of 1233.5metric tons. The inability to completely evaluate the waste generated is attributed to the distance covered and turn-around time of trucks at the transfer stations as well as the poor attitude of the residents, particularly in the area of financial commitment and cooperation.

Corroborating the latter using the field observation records of the researchers, they noted that there is a great deficiency in the number of vehicles engaged in waste disposal. Hence, there is an obvious ineffectiveness in the waste disposal system noticed in the study area and the delay in collection of household waste for days, weeks, or months, resulting in pollution and littering of the surroundings. The PSP operators were of the opinion that the locations of sanitary landfills are far away from some neighborhoods, and the gridlock as well as environmental conditions in the neighborhood impede smooth logistics of refuse from collection point to dumpsite. Meanwhile, the nature of road design and condition, neighborhood design, and road users' attitude compounded the longer hours of travel and distance covered from the point of waste generation to the waste transfer station, landfill, or recycling plant. These factors are noted as major factors militating against effective management of waste logistics.

Table 6: Frequency of Waste Collection by PSP Operators (Trip Making)

Operator	Landfills	Volume of waste generation monthly (metric tons)	Frequency of trips (monthly) by 15 tons capacity truck	Waste collected monthly (15 tons capacity truck)	*Left over waste (uncovered for)	*Total trips expected to take care of total waste generated monthly	*Variance in monthly trips
PSP Operators	Ikeja	1555.3	41	615	940.3	104	63
	Ojo	1233.5	58	870	363.5	82	24
	Total	2788.8	119	1485	1303.8	186	87

Source: Field Survey, 2020 (* PSP Operators; **Authors Calculation)

4.6 Factors Determining the Best Practices in Waste Management Logistics

The PSP operators involved in the waste management collection and disposal within the study area were interviewed on the factors perceived to determine the best practices in waste management logistics and the analysis was achieved using the frequency of opinion presented in Table 7. Findings presented in Table 7 revealed quality transport options as the most rated factor (100%) that determines best practices in waste management logistics. Worthwhile, this is followed by route optimization and distance coverage (93%), quality of waste sorting and handling (93%), quality of inventory control and management (87%), vehicle type and condition (87%), and waste storage and processing (87%). In other words, the quality of waste packaging (33%) and the nature of waste marketing and recycling (27%) play the least role in waste management logistics best practices in the study area. In other words, it is worth knowing that eight (8) out of the ten (10) factors scored above 75%, indicating the best possible factors that significantly affect waste management logistics best practices in the study area.

Table 7: Analysis of factors determining best practices of waste management logistics

Indicators	**NO**		**YES**		**TOTAL**	
	Freq.	%	Freq.	%	Freq.	%
Customer information	5	33	10	67	15	100
Inventory control and management	2	13	13	87	15	100
Storage facilities	3	20	12	80	15	100
Waste packaging	10	67	5	33	15	100
Quality transport option	0	0	15	100	15	100
Route optimization	1	7	14	93	15	100
Waste marketing and recycling	11	73	4	27	15	100
Vehicles type and condition	2	13	13	87	15	100
Quality of waste sorting/ handling	1	7	14	93	15	100
Waste storage and processing	2	13	13	87	15	100

4.7 Constraints to Waste Management Logistics in the Study Area

There are numerous challenges identified as affecting waste logistics, in particular, and waste management in the study area. All stakeholders, including PSP operators and members of the general public, are facing the same challenges and consequences. In view of this, the constraints to waste management logistics operations as observed by the PSP operators include the following:

- The deplorable condition of the landfills failed to support efficient waste logistics. The situation is more worrisome during the rainy season as the rough terrain is mostly unsuitable for waste trucks and refuse compactors, which leads to increased turnaround time for the service providers. This is an attestation that landfills are poorly maintained, while the costs incurred on repairs and services of refuse compactors become outrageous as a result of poor management of the dumpsite to offload.
- The persistent delay in payment of service providers is very worrisome and also has adverse implications for waste logistics and transportation. Accordingly, debts and delays in payment of charges by users and the government are inconsequential to efficient waste logistics.
- The exorbitant price of the garbage compactors being provided by the government is having adverse implications for waste logistics and the overall waste management framework. This has been leading to the inability of the operators to liquidate the payment of the hired purchased vehicles since there is no provision for any subsidy or incentive with respect to spare parts and other essential equipment.
- The government's policy on waste management initiatives is defective and inconsistent. To be more specific, government policy has always changed without due consultation with stakeholders in order to foster a sense of belonging, while the construction of transfer loading stations (TSL), etc., no longer serves its purpose because service providers now dump directly to dumpsites rather than through transfer stations.
- Some of Lagos's hinterland is inaccessible to operators due to bad roads, and the cart pushers who would assist in such cases have been banned by the government to make

way for PSP operators. There is also a dearth of manpower in waste handling procedures. The operators just jump into the business without understanding what it takes to start the business.

- The billings and charges being used by the operators are not a reflection of the true situation in the area as fixed rates per flat, shop, and room are being charged rather than charges based on the amount of waste generated by a household or house.

5. Conclusion and Recommendations

This study examined waste management logistics, which has always been a major problem and a serious challenge confronting mostly urban dwellers, society, and governments. The issue of waste management logistics is also of utmost concern to many international organisations such as the World Bank and the United Nations. This improper collection and disposal of waste and the attributed defective mechanism of waste management, especially in developing countries, is no doubt adversely affecting residents in the built environment, leading to the emergence of concerns. With Nigeria's cities, most especially Lagos Metropolis, growing with an unprecedented population growth, urbanization, a booming economy, improved standard of living and the influx of people to cities for greener pastures, there has been an accompanying increment in the volume of waste generation while waste disposal mechanisms and management logistics of such have not been effective.

Like Fasina, Salisu, & Akanmu (2020), this study established the importance of waste logistics in achieving effective waste management practices in Nigeria's cities. Therefore, it becomes expedient to adequately understand the nature and characteristics of waste management; management of waste logistics, which includes waste collection, storage, transportation, and disposal; and the factors determining the best practice of waste logistics in the Lagos Metropolis. Therefore, the study concludes that the logistics of waste management in the study area is constrained by so many salient factors. Obviously, there is a near absence of synergy among the logistics components of waste management while there is a lack of a framework for waste management logistics in Nigeria; hence, the need for reappraisal and reawakening in line with best practices to solve logistics weaknesses in waste management practices in Lagos Metropolis and the country at large.

Therefore, it was recommended, among others, that there is a need for training and retraining of manpower in waste logistics to foster sustainable waste management in the country, apart from the intensification of public enlightenment on contemporary waste management practices. This would equally improve waste information, collection, handling and processing, transportation and disposal, inventory control management, and storage as critical components of waste logistics, which households and other stakeholders must take to heart towards achieving sustainable waste management. Also, adequate route optimization towards a reduction in fuel consumption and turnaround time of garbage trucks to landfills is anticipated by this study, while incentives and funding support for private operators would serve as veritable encouragement to operators to achieve the goal of a clean built environment in Nigeria.

In addition, all the landfills in Lagos Metropolis should be made functional and more transfer stations should be established in close proximity with the physical development plan to reduce turnaround time of waste vehicles, avoid longer travel time and encourage fleet and route optimization. In addition, review of waste management policy with incursion of waste logistics as integral component has become indispensable considering the numerous challenges associated with evacuation, handling, movement and disposal of waste at dumpsites; hence, formulation of workable policy and broad strategies for sustainable waste management in this regard is highly articulated by this paper.

Finally, the society should be enticed into waste market so as to fully explore immensurable potentials that are available in waste market through waste to wealth initiative. With this, households waste would over accumulated before evacuating, and at the same time, guide against littering the streets with garbage as health hazard due to pollution or offensive odour and contamination of underground water would be curtailed. As a result, the populace would be willing to devise means at eliminating waste through action and inaction and the desire to eco-friendly built environment shall be achieved.

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Survey of Urban Poverty and Urban Slum Lifestyle in Selected Areas of Lagos State

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Abstract. The global growth of urban slums has been attracting interrogations in economic research as well as problems for policymakers. This study investigates the urban slum lifestyle of the people living in slums in selected areas of the three (3) senatorial districts of Lagos State, Nigeria. The research employs participant observation where the researchers are present within the focused areas to study the pattern of poverty, then applies structured questionnaire and interview. It further employs a random sampling of 120 individuals from each of the three (3) senatorial districts, giving a total number of samples from the population as 360 samples. The study employs Descriptive statistics, weighted poverty measures and Linear regression models as Tools for the analyses. It finds that the microeconomic environment has an impact on slum incidence in the urban areas. There is evidence that the higher the proportion of income spent on water, the greater the incidence of slums. This finding is in line with theory, following microeconomic theory that poorer households will spend more on necessities like water and such households are naturally more common in slums areas. Again, the results show that there is no link between urban development policy and proliferation of slums. In addition, the findings support evidence of different patterns of urban proliferation in the three regions examined. It further finds that urban settlers pose danger to the society and face danger in terms of unavailability and extreme difficulty to install infrastructural facilities. The study, therefore, recommends among others, a strategic urban development policy to address proliferation of urban slums. It also recommends that the slums should not be demolished since their demolition may be calamitous. Instead, peculiarity of the tribes living in the creek should be considered and amenities should be provided. Thus, microeconomic environments could be enhanced and danger they pose or face will be significantly reduced.

Keywords: Urban Slums, Microeconomic Environment, Poorer Households

1. Introduction

Several studies (Aku, Ibrahim and Bulus (1997); Oseni, Ogunlade, Oyetunji and Sanni, 2012; and Ogwumike (2002), have focused on poverty. From empirical analysis, there is a consensus on poverty being a rural phenomenon with above 50 percent of the world's poor living in rural areas. However, it is now becoming common knowledge that poverty is steadily creeping into major cities of the world as we now have words like ‘urban slums’, ‘shanty towns’ and other names to describe poor settlements in big cities. Due to general belief that poverty is a rural problem, the urban poor have been existing without much being known about them and as such most policies aimed at alleviating poverty in some developing countries have failed to capture the silently growing urban poor. For poverty to be tackled in totality, governments need to be aware of where the poor could be found. There is need to know the difference between the level of poverty in those areas, their socio-economic activities. Infrastructural facility needed to support fast growing urban cities also need to be investigated. Using primary data from designed questionnaire, interview and participant observation, this study hopes to investigate the issues of urban poverty, “urban slum” and systematic way to eradicate urban slums and shanty towns taking Lagos city as case study. Lagos State is the second most populous state in Nigeria, the largest commercial city and the state with the largest urban slums settlement in the country. With the aim of comparing poverty level in three major urban cities in the three senatorial districts in Lagos State Nigeria, urban slums and shanty town in the selected research areas shall be visited through participant observation to enable early morning,

evening, and weekend interactions with the dwellers and to collect data through observations, designed questionnaire and interview.

The research shall align with Central place theory, which is a spatial theory in urban geography proposed in the 1930s by a German geographer, Walter Christaller. He attempts to explain the reasons behind the distribution patterns, size, and number of cities and towns around the world. The theory was developed to explain the size and spacing of cities that specialize in selling goods and services and how people are attracted from the surrounding area. Lagos being the business capital of the country no doubt attracts both people from other States of the federation as well as those from other nationals.

According to National Population Commission, estimate population of Lagos was put at 21 million in 2016 to be largest city in Africa. Nigeria is a member of the Cities Alliance, (the Alliance is a global coalition of cities committed to poverty reduction). According to World Bank (2001) report, poverty is deprivation which encompasses both material and non-material needs. The "Cities Without Slum Action Plan" was launched by former South African President, late Nelson Mandela at the inaugural meeting of the Alliance in Berlin in December 1999. Consequently, for effectiveness and efficiency of policies aimed at alleviating poverty and eradicate 'urban slums' in Nigeria, there is the need to capture the silently growing urban poor and 'urban slums'.

1.2 Definition of Operational Terms

a. Urban Poverty: It is seen as a type of poverty with the primary characteristic that it occurs in industrialized cities and that are the result of a mixture of processes such as the establishment of comfortable living standards, the increase of individualism, process of social fragmentation, and the dualization of the labour market, which translates into social dualization. Factors causing urban poverty are low levels of education or skills, lack of employment opportunities, low wages, large family size and lack of basic amenities, etc.
b. Urban Slums: A slum is an adjoining settlement where the inhabitants are characterized as having inadequate housing and basic services. A slum is not often recognized and addressed by the public authorities as an integral part of the city.
c. Lifestyle: Is the way of life of a person or group of people which encompasses their beliefs, orientation and behavior.

1.3 Statement of the Problem

It is an established fact that poverty has steadily crept into major cities of the world. This has led to 'urban slums', 'shanty towns' and 'city ghettos'. These and some other names are now being used to describe poor settlements in the big cities. Consequently, urban poor and urban slum lifestyle have been existing without much being known about them.

1.4 Research Questions

The research seeks to answer the following questions:

- What is the nature of the linkages between the incidence of urban slums and the microeconomic environment?
- Is there links between urban development policy and proliferation of slums?
- Is there any difference in the pattern of urban proliferation in the different regions to be studied?
- What dangers do they pose to the society and what dangers do they face?

1.5 Objectives of the Study

This study aims specifically at examining the demographic and socio-economic characteristics of the people in the three senatorial districts of Lagos state as well as their poverty profile in other to identify the determinants of incident of poverty among the respondents in the ''urban slum and 'shanty towns'.

1.6 Research Proposition/Hypothesis

Ho1: There are no linkages between the incidence of urban slums and the microeconomic environment.
Ho2: There is no links between urban development policy and proliferation of slums
Ho3: There is no difference in the pattern of urban proliferation in the different regions to be studied.
Ho4: Slums dwellers and urban poverty pose no dangers to the society and faces no dangers

1.7 Significance of the Study

The identification of notable 'urban slum' and shanty town, the profiles and types of poverty deprivations and sensitization of the 'urban slum dwellers' through orientation for a normal city lifestyle as well as preparing them for the necessary change ahead that requires their cooperation will be the expected outcome of the research in the short term. However, in the long run it is expected that policy makers, the Federal and Lagos state governments and concerned

stakeholders will find the policy implementation outcome useful for sustainable development plans that leaves no one behind. It has the likelihood to change the quality of life of the 'urban slum' dwellers and others in the metropolis whose quality of lives are affected by 'urban slum' dweller's personal or physical deprivation, economic, social and political derivations to reduce incidence of poverty to barest minimum. In sum, the socio-economic lives of the 'urban slum' dwellers are expected to be enhanced in the long run.

1.8 Scope of the Study

This study covers three senatorial districts in Lagos State each comprising of Local Government Areas (LGAs) and Local Council Development Areas (LCDAs). The study examines the demographic and socio-economic characteristics of residents in the three senatorial districts of Lagos state in addition to their poverty profile in other to ascertain the determinants of incidence of poverty among the respondents in the ''urban slum and 'shanty towns'.

1.9 Limitation of the Study

The study will be restricted to the three senatorial districts in Lagos State consisting of Local Government Areas (LGAs) and Local Council Development Areas (LCDAs) as state earlier.

2. Literature Review

The effects of slum conditions on socioeconomic lifestyles and health conditions of its inhabitants are factual and clear. In a research by George (1999) for instance, he contended that the disregard of buildings caused by low capital base of the populations result in the development of slum while the physical deterioration of the area boosts springing up of slum development. Important features of slum areas consist of poverty, illiteracy, crowdedness, health problem, crime, and social vices. Previous studies focused much on the physical appearance of dwelling units with the aim to assess the dimensions of the slum problem externally. But recent studies have considered socio-economic aspect of slum as well as the health of the inhabitants very crucial. For instance, Bello (2002) emphasized that slum areas are locus of poverty where various factors that enhance slum development and growth are noticeable. He admitted that congestion of building and people as potent factors that created opportunities for the emergence of low environmental quality and unsanitary conditions, which breeds contagious diseases and infections in such deplorable parts of urban area. In a related study carried out by Olanrewaju and Akinbamijo (2002), it was affirmed that environment has great and obvious effects on health as poor residents are often seen at zones, which imply poor health. They observed slum dwellers to be group of people who live in old houses with bad structures located in poor environments where they are exposed to ill health from polluted water. Such houses are without toilet and other essential utilities. Their drains are often filled with refuse deposits, which hamper the free flow of run-offs. Similarly, Onibokun and Kumuyi (1996) identified slum areas as regular abodes for urban poor. Such are characterized by low income, unstable employment, low status of job, poor housing conditions, large facilities, and constant struggle for survival. Also, they are distinguished by low access to limited information (Olanrewaju, 2004)

The United Nations Habitat Report (1989) stated that a large proportion of the third world's urban population lives and works in very poor condition. Apart from the fact that the poor inhabit many different low-quality forms of housing, there are two other basic environmental problems that are evidently noticeable. One is the presence of pathogens in the human environment due to lack of basic infrastructure and services. The second is crowded and cramped living conditions. The report shows that lack of infrastructures, readily available drinking water, sewerage facilities to dispose human wastes hygienically, garbage and refuse disposal facilities as well as lack of basic measure to prevent and provide primary healthcare ensure that many debilitating and endemic among the urban poor holds. Such diseases include diarrhea, dysentery, typhoid, intestinal parasites, and food poisoning.

Malik, Roosli and Tariq (2020) investigated informal housing challenges and issues: experiences from slum and squatter of Lahore. The issues of informal housing based on field research and in-depth interviews of the residents of Karol Ghatti slum and Qalandarpura squatter was investigated. The objective of the study is to understand the complex phenomena of informal housing development by digging out respective reasons and their impacts on dwellers as a part of their daily survival challenge. Results confirm that inhabitants of slum and squatters exhibit socio-economic deprivations and lack basic infrastructure. This paper delivers a complete synthesis informal housing issues by providing social, environmental, operational, and physical constructs, which can lead to thorough understanding and thus, are viable approaches to tackle the challenge of slums and squatters at a national level.

Zainal, Kaur, Ahmad and Khalili (2012) examined the relationship between housing conditions and the quality of life of the urban poor in Malaysia. Housing conditions includes the physical conditions of dwellings, type of dwellings, house tenure, surrounding environment and availability of amenities. Quality of life is measured by 50 items on self-reported health, safety, and social support. The findings showed a small, but significant positive relationships between housing conditions, health, safety, and social support which provide empirical evidence of the relationship between housing conditions and quality of life. This enlightens the issue of considering housing condition as a social economic indicator of urban poverty.

Omole (2010) examined the importance of housing to man as an essential need and a prerequisite for the survival of man after food. It equally recognizes profound influence it has on the health, behaviour and efficiency of man and the nation. The study was carried out with the aid of questionnaire administration, building and facility survey Using random sampling technique, every 5th houses in the five district areas was picked for interviewed. Also, data were collected from related government ministries and departments to find out government's intervention in this area. Findings from the study reveal that the area chosen for the study exhibit slum condition that has undenied impact on the socio-economic lifestyles and the health of the residents, as well as the general outlook of the environment. Recommendations were proffered to guide the policy makers towards enhancing the lives of the residents of the area. Some of which include upgrading programme through the provision of urban basic services and improved sanitation strategies for sustainable management of the area, Public enlighten campaign is also recommended so that the residents will know the importance of good living condition to their health and as well to know the danger of abusing their environment.

Owoeye and Sogbon (2012) investigated the limiting role of socio-cultural attributes of slum residents on renewal policies which are implemented to minimize or eradicate such deficiencies. The study was carried out in Akure, in South-Western Nigeria. Using questionnaires, direct observation, housing demographic and facility survey for data collection, it was discovered that residence satisfaction is not to be measured only by the facilities therein or by the quality of the dwelling units. Other imperceptible cultural and social factors play prominent roles, which need be considered while framing policies for city development. However, full participation of slum residents is noted very indispensable for the success of any large-scale renewal programme while effective public enlightenment, improved socio-economic base and sanitary education strategies will help in re-orientating the people and equipping them towards healthy and aesthetically decent environment.

3. Theoretical Framework

3.1 Theory of Marginality

According to Surbakti (1984), the symptoms of poor villages in urban areas can be seen from the theory of marginality. The theory sees the symptoms of poor settlements which are characterized by a slum environment, as a product of rural migrants who are socially, economically, culturally, and politically unable to integrate with the life of urban society.

According to the theory of marginality, the phenomena of the poor settlement growth is widely spread in urban areas due to the migration of rural people to cities with different rural lifestyles, even contrary to the city lifestyle. Migrants are seen as people who are displaced from the countryside, who do not have relatives in the city and do not have a place to live in the city. They are unable to adapt to the city life and are generally reluctant to return to their villages because they have nothing left there. In cities, they gather with people who are in the same boat-arms, then isolate themselves in poor settlements, in slums that are parochial and in a "*ndeso* (rustic)" lifestyle. In this socially isolated place, they are destitute, with inhuman environmental conditions and do not have permanent jobs.
In cities, they do not make use of existing institutions that might help them in changing traditional values and attitudes to be more modern. The view of poverty, such as apathy, suspicion, fatalism, despair, dependence, inferiority, crime, wasteful and consumptive, oriented to-today (subsistence), lack of participation in development and lack of integration with city life. All of which are familiar scenes encountered in slums in urban areas. According to Even Lewis in Surbakti argued that the view of destitution or poverty in the slums is all socialized from generation to generation. In brief, this theory of marginality suggests the following propositions or opinions: Socially, inhabitants of poor settlements have an "internal disorganization", such as lacking social cohesion which tends to have a will to be living in groups, but individually, they feel lonely. They also experience an "external isolation", such as lack of being integrated into city life, because they do not widely make use of existing city bodies, such as institutions, offices, and other urban service

institutions. Culturally, the slum dwellers have traditional cultures, such as parochial attitudes and "rural" lifestyles, and are entangled in a vicious cycle of poverty. Economically, they are considered "parasitic" because they absorb more resources in cities rather than providing ones to the people of the cities, they also have parochial economy, such as wasteful, consumptive, quickly satisfied, market-oriented, and less market-oriented lifestyle, and lack of entrepreneurial spirit. Politically, it turns out that they are considered apathetic, because they do not integrate into city life, and lack of participation in the development or in the political life of the city and nation-wide. They tend to behave in the sense of radically or brutally being easily influenced by negative issues just like dry grass in the dry season which is easily flammable to be ignited by fire. This condition is due to frustration, social disorganization and the reality of life they have been through so far.

3.2 Theory of Dependency

Besides theory of marginality, in explaining the emergence of symptoms of poor settlements or slums in urban areas, it can be conducted through theory of dependency. According to Surbakti (1984), on contrary to the theory of marginality, theory of dependency is "structural" in explaining the symptoms of the growth of poor settlements or slums in urban areas. According Suparlan (1995), from the point of theory of dependency view, the phenomenon of poor urban settlements is a form of capitalist penetration product of rural communities which are structurally "lame" when compared to urban conditions. Capital here is not in a narrow sense in the form of capital, but also includes technology (technocapital) and human (labour/skill). The presence of penetration especially in the form of capitalism experienced in rural areas results in the emergence of minority capitalist elites who dominate the fields of agricultural land ownership, knowledge, technology, information, and power, while most members of the community lack of access to these resources. Before the capitalist penetration occurs in the countryside, the relationship between landlords and farm workers is quite harmonious, in the form of high personal and social relations rather than economic relations which tend to be rational and straightforward due to the capitalist penetration. The broad effect of capitalist penetration is an increasing number of unemployment in rural areas, because if they want to get involved, they must have access to capital, land, skills, information, and power, while the majority has nothing, so that it leads to dependency on the elite living in the countryside. The situation and conditions in rural force them to find a way out, such as, by migrating to big cities to find a job and to boost their income. In other words, there is *push factor*, that is, unemployment and poverty in rural areas, whereas another factor is the *pull factor*, which is interest and hope arising from rapid urban growth as a cause of their moves to cities. Because most migrants are not equipped with adequate skills, expertise and education, it is difficult for them to be get into formal economy fields, such as state companies, private companies, or government bureaucratic offices in big cities.

The jobs available for them are struggling in informal economy, in which do not require formal education requirements, high skills, and do not require permit documents, as well as large capital in producing types of goods and services. Some of them also do not have a decent place to live, due to inadequate income, so they live in slums with low rental rates near where they work or do business. In brief, it can be explained that the theory of dependency concludes that the existence of poor settlements or slums in urban areas; socially, they are set aside by people's lives; culturally, they are insulted and made "*scapegoats*" as criminals; economically, they are completely exploited and squeezed out in terms of their energy (at low wages); politically, they are shackled by not having a bargaining position in a decision-making. Even if they live in a slum environment, it is not merely because of "*marginal*" or a structured poverty culture, but rather than because they have been deliberately "*marginalized*" by the existing economic and political system. The explanation given through the structural dependency theory approach on the phenomenon of the growth of poor settlements or slums in urban areas seems to be closer to reality and more often found in cities in developing countries such as Indonesia, rather than the explanation given through the marginality theory approach. But some of the "*socio-cultural*" characteristics of slums - as suggested by the theory of marginality - may be true, such as a lack of ownership of communities outside the *RT / RW* (hamlet) organization and behavior with rural lifestyles. In contrast, what is stated in the theory of dependency is that the "*socio-political*" characteristics found in urban slums, such as the level, intensity, and participation in politics or in limited development, may not always be true.

4. Methodology

4.1 Data and Research Design

This research work is set to investigate the urban slum lifestyle of the people living in slums in Lagos State Nigeria. As to what constitute a slum, the study

will adopt the definition proposed by the UN-HABITAT Expert Group Meeting (EGM) on slum indicators, which states that: 'A slum is a contiguous settlement where the inhabitants are characterized as having inadequate housing and basic services. According to the definition, a slum lacks access to improved water; access to improved sanitation; structural quality/durability of dwelling; sufficient living space that is not overcrowded; and security of tenure (UN-HABITAT 2003). Data will be obtain using questionnaire and participant observation on both quantifiable and non-quantifiable factors bordering on all the above-mentioned factors that constitute a slum and the use Descriptive statistics, weighted poverty measures and Linear regression models as Tools for the analyses.

4.2 Sample Size

The three senatorial districts in Lagos State comprise of Local Government Areas (LGAs) and Local Council Development Areas (LCDAs). Under Lagos West senatorial district, the research area will be Ikeja Local Government, under Lagos Central senatorial district, Lagos Island Local Government area was examined and under Lagos East senatorial district, the research focus on Somolu Local Government area. These are part of Lagos metropolitan.

4.3 Sampling Techniques

The research will employ participant observation where the researchers will reside within the focused area to study the pattern of poverty, then apply structured questionnaire and interview. This said, a random sampling will apply to 120 individuals from each senatorial district. Total number of samples from the population is 360 samples.

5. Analysis and Discussion of Results

The descriptive demographic distribution of the respondent shows that there were more males (52.51%) in the study sample relative to females (47.49%). In terms of respondent age, most of the respondents were aged 20 – 30 years (35.1%). There were also many respondents (26.84%) who were aged 31 – 40 years when compared to those aged 41 – 50 years (18.29%). Similarly, persons aged from 41 – 50 years (18.29%) were more than those aged 51 – 60 years (10.62%).

Table 1: Demographic Distribution of Respondents

Variable	Freq.	Percent
Sex		
Male	178	52.51
Female	161	47.49
Age of Respondent		
Less than 20 Years	13	3.83
20-30 years	119	35.1
31-40 years	91	26.84
41-50 years	62	18.29
51-60 years	36	10.62
61 years and above	18	5.31
Employment Status		
Self Employed	166	48.97
Salaried	35	10.32
Regular Wages	17	5.01
Casual Labour	55	16.22
Others	66	19.47
Education of Respondent		
First Sch. Cert.	78	23.01
Secondary Sch. Cert	177	52.21
OND/NCE	49	14.45
B.Sc./HND	34	10.03
Post Graduate	1	0.29
Marital status of head		
Married	190	56.05
Single/never married	115	33.92
Widow/Widower	19	5.6
Divorced	4	1.18
Separated	11	3.24
Household size		

Less than 5 persons	143	42.18
5-9 persons	124	36.58
10-14 persons	46	13.57
15 persons and above	26	7.67
Total sample	339	100

Source: Authors' calculations from survey data (2022)

As per employment status, there was a good proportion of the respondents who are self-employed (48.97%) compared to those of other employment status. Particularly, there were some who were salaried (10.32%), but these were less than the casual laborers (16.22%) who were in turn, less than workers in the "Others" category (19.47%). On education qualification of the respondents, there seems to be more respondents with secondary certificate (52.21%) when compared to others. The proportion are specifically as follows: 23.01% (first school certificate), 14.45% (OND/NCE), B.Sc./HND (10.03%), and 0.29% (postgraduate). Household marital status reveals that there are more married household heads (56.05%) when compared to the never married (33.92%), widowed (5.6%), separated (3.24%) and the divorced (1.18%). Finally, the household size of respondents seems skewed in the direction of small households (42.18% for Less than 5 persons households, 36.58% for 5-9 persons households, and 13.57% for 10 – 14 persons households). Consequently, only 7.67% of the surveyed persons were in households with 15 persons and above.

Table 2: Distribution of Respondents by Incidence of Urban Slums

Variable	Freq.	Percent
Do you have access to at least 20 litres of improved water per day?		
Yes	241	71.09
No	98	28.91
How can you describe your excreta disposal system?		
Ventilated improved pit latrine	61	17.99
Pour flush latrine	142	41.89
Direct connection to septic tank	25	7.37
Direct connection to public sewer	4	1.18
Open defecation	107	31.56
How many persons lived in a room in your household?		
0-2 Persons	76	22.42
3-4 Persons	171	50.44
Above 5 persons	92	27.14
What type of house do you live in?		
One room in face-to-face house	212	62.54
One-room self-contain	45	13.27
Flat	39	11.5
Duplex	1	0.29
Others	42	12.39
How do you dispose your waste?		
Dump in gutters/canal	54	15.93
Dump in the river	43	12.68
Dump in government waste bin	143	42.18
Dump on the road	45	13.27
Burning	50	14.75
Others	4	1.18
Do you have security of tenure on your accommodations?		
Yes	142	41.89
No	197	58.11
Total Sample	**339**	**100**

Source: Authors' calculations from survey data (2022)

The distribution by incidence of urban slums is represented in Table 2. More persons have access to at least 20 litres of water per day (71.09%) than do not (28.91%). In terms of excreta disposal system, we find that the pour flush latrine is most popular (41.89%) while the highest proportion of the others practice open defecation (31.56%). Other relied on ventilated-improved pit latrine (17.99%), direct connection to septic tank (7.37%), and direct connection to public server (1.18%). The household size of 0-2 persons (22.42%) is less than that of 5 above persons (27.14%) and 3 – 4 persons (50.44%). The one room apartment in a face-to-face apartment is more common among the respondents (62.54%) than the one-room self-contained (13.27%%) or the duplex categories (0.29%). In terms of waste disposal, we find that government waste bins are more common (42.18%) when compared to dumping in the gutters (15.93%) or dumping along the road (13.27%). Both are, however, more common than burning (14.75%), dumping in the river (12.68%), and others (1.18%). Also, most respondents do not have tenure security in their accommodations (58.11%).

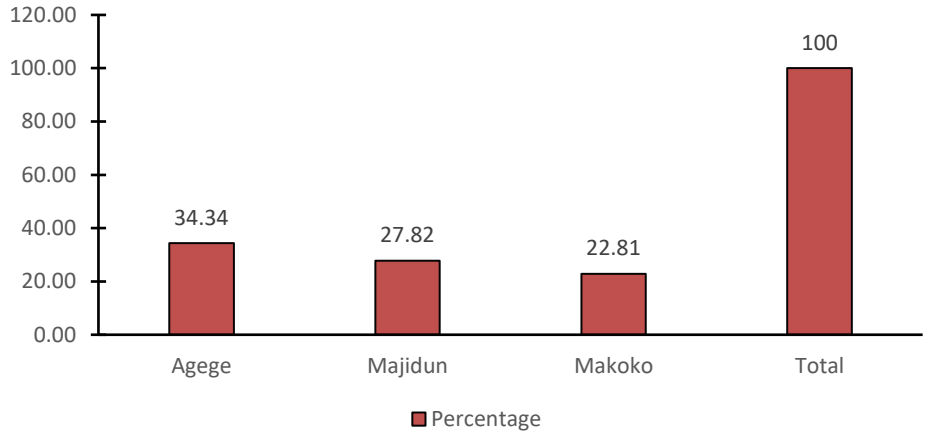
Table 3: Distribution of Microeconomic Environment Indicators

Variable	Freq.	Percent
What is the range of your household monthly income?		
Less than N20k	79	23.3
20k - 25k	63	18.58
26k - 30k	52	15.34
31k - 35k	37	10.91
36k - 40k	47	13.86
41k+	61	17.99
How can you rate price of goods and services in your area?		
Very low	4	1.18
Low	11	3.24
Moderate	26	7.67
High	167	49.26
Very High	131	38.64
Percentage of income spend on buying gallon of water per week/month?		
Less than 10%	174	51.33
10-19%	123	36.28
20% and above	42	12.39
How much do you spend on living daily on the average?		
Mean (SD)	Range	
N2642.77(N1582.40)	N400 – N10,000	
Total Sample	339	100

Source: Authors' Calculations from Survey Data (2022)

Looking at the distribution of microeconomic indicators (Table 3), the income distribution of the respondents seems non-skewed in favour of any category. Be that as it may, most of the respondents (23.3%) earn less than N20,000 per month followed by those who earn N26,000 to N30,000 monthly. The least common income group turns out to be the N31,000 to N35,000. When asked to rate the price of goods and services in their areas, it became clear the price of goods and services has been high (49.26%) or very high (38.64%). There were other respondents who felt that prices have been moderate in their areas (7.67%). Very few felt that prices were low (3.24%) or very low (1.18%). From their responses on the proportion of their income spent on purchasing gallons of water per week, the study finds that there are more respondents who spends less than 10% (51.33%) when compared to those who spend from 10-19% (36.28%) or 20% and above (12.39%). The exact amount spent per day ranged from N400 to N10,000 with a mean of N2,643 approximately.

Figure 1: Distribution of Respondents by Location



Source: Authors' calculations from survey data (2022)

Looking at the distribution of the sampled respondents by their location, there seems to be more people living in Agege slums (34.34%). Also, there are more respondents in the Majidun slums of Lagos (27.82%) compared to those in Makoko slums (22.81%).

Hypothesis One: Research Question One
Ho1: There are no linkages between the incidence of urban slums and the microeconomic environment.

In line with the first research question of the study, a linear regression model was used to estimate the relationship between urban slum incidence and the microeconomic environment around the slums (Table 4). The evidence documented in Table 4 shows that the microeconomic environment truly has an impact on slum incidence in urban areas. Starting with household income, we see that the incidence of urban slums decreases with household income, but the difference seems significant only between household income of N41,000 and above and less than N20,000. It can also be seen that the higher the rating of the respondent's area's price of goods, the lesser is the incidence of urban slums. This means that areas with better price rating experience less slum incidence than those with worse price ratings. There is also evidence that the higher the proportion of income spent on water, the greater the incidence of slums. This is in line with theory, since following microeconomic theory, poorer households will spend more on necessities like water and such households are naturally more common in slums areas. No wonder the study finds that average daily spending on necessities is also increasing with slum incidence. There is therefore the likelihood to the reject null because there is a linkage between incidence of urban slim and microeconomic environment.

Table 4: Linear Regression between Urban Slum Incidence and Microeconomic Environment

Variable	Coef.	St. Err.	t-val.	p-val.	[95%	Interval]	Sig
Household income: Less than N20k (Reference)						.	
N20k - N25k	0.064	0.430	0.15	0.883	-0.783	0.910	
N26k - N30k	-0.388	0.445	-0.87	0.384	-1.263	0.487	
N31k - N35k	-0.172	0.507	-0.34	0.734	-1.171	0.826	
N36k - N40k	-0.760	0.471	-1.61	0.107	-1.687	0.166	
N41k+	-1.204	0.454	-2.65	0.008	-2.097	-0.310	***
Price of good rating: Very low (Reference)							
Low	-2.572	1.510	-1.70	0.090	-5.544	0.400	*
Moderate	-1.946	1.369	-1.42	0.156	-4.640	0.748	
High	-3.821	1.290	-2.96	0.003	-6.359	-1.284	***
Very High	-3.784	1.297	-2.92	0.004	-6.336	-1.232	***
Proportion of income spend on gallons of water: Less than 10% (Reference)							
10-19%	0.954	0.308	3.10	0.002	0.348	1.560	***
20% and above	2.112	0.459	4.60	0.000	1.210	3.015	***
Average daily spending	0.0003	0.0001	2.55	0.011	0.000	0.000	**

Constant	15.370	1.330	11.56	0.000	12.754	17.986	***

Mean dependent var	12.667	SD dependent var	2.719
R-squared	0.209	Number of obs.	339.000
F-test	7.168	Prob > F	0.000
Akaike crit. (AIC)	1585.901	Bayesian crit. (BIC)	1635.639

*** *p<0.01, ** p<0.05, * p<0.1*

Source: Authors' estimation with survey data using Stata 16

Hypothesis Two: Research Question Two

Ho2: There is no links between urban development policy and proliferation of slums

The second research question examines whether urban proliferation is affected by urban policy. Given the ordinal nature of the urban proliferation variable (i.e., Likert scale), the ordinal logit regression model is considered ideal. The results reported in Table 5 are quite intuitive. Urban development policy is negatively associated with urban proliferation and the effect is negative. In other words, it seems possible to reduce urban proliferation when government puts adequate urban development policies in place. Base on these findings, we may not be able reject the null because the results shows that there is no link between urban development policy and proliferation of slums.

Table 5: Ordered Logistic Regression between Urban Proliferation and Urban Dev. Policy

Variable	Coef.	St. Err.	t-val.	p-val.	[95%	Interval]	Sig
Urban Policy	-0.064	0.020	-3.20	0.001	-0.103	-0.025	***

Mean dependent var	21.097	SD dependent var	5.128
Pseudo r-squared	0.005	Number of obs.	339.000
Chi-square	10.370	Prob > chi2	0.001
Akaike crit. (AIC)	2039.107	Bayesian crit. (BIC)	2127.105

*** *p<0.01, ** p<0.05, * p<0.1*

Source: Author's estimation with survey data using Stata 16

Hypothesis Three: Research Question Three

Ho3: There is no difference in the pattern of urban proliferation in the different regions to be studied.

The study also sought to examine whether urban proliferation differs by slum locations of the respondents. Again, this is captured using the ordered logistic regression model used in the previous table. The results displayed in Table 6 shows that indeed, slum proliferation differs by location in the urban areas. Reference to the present case, the Majidun area seems to have experienced significantly less urban proliferation when compared to the Agege area. On the other hand, the Makoko area appears to have had a higher occurrence of urban proliferation than the Agege area, but this difference appears to be insignificant as the result shows. There is the likelihood to reject the null because the findings support evidence of different patterns of urban proliferation in the three regions examined.

Table 6: Ordered Logistic Regression between Urban Proliferation and Location

Variable	Coef.	St. Err.	t-val.	p-val.	[95%	Interval]	Sig
Agege (Reference)						.	
Majidun	-1.231	0.247	-4.99	0.000	-1.714	-0.747	***
Makoko	0.041	0.227	0.18	0.857	-0.404	0.485	

Mean dependent var	21.097	SD dependent var	5.128
Pseudo r-squared	0.015	Number of obs	339.000
Chi-square	29.349	Prob > chi2	0.000
Akaike crit. (AIC)	2022.128	Bayesian crit. (BIC)	2113.952

*** *p<0.01, ** p<0.05, * p<0.1*

Source: Authors' estimation with survey data using Stata 16

Hypothesis Four: Research Question Four

Ho4: Slums dwellers and urban poverty pose no dangers to the society and faces no dangers

The societal dangers of slum proliferation are examined next presented as given by the responses received in the field survey (Table 7). There seems to be mixed feelings about whether slum proliferation increases drug abuse. The relative high proportion of respondent who agree to that statement (21.83%) is surpassed by those who disagree (35.40%). Netting out the neutral responses, one could say that the consensus is in favour of slum area not contributing to drug abuse. A different picture emerges when the question relates to slum proliferation and cultural barriers. Most respondents agree (35.10%) and these are more than those who disagree (21.53%) and those who strongly disagree (7.67%) are combined. It can also be seen that slum settlers contribute to vandalism in the society when the study looks at the responses from the survey. Again, after accounting for neutral responses (20.65%), there are more respondents, on aggregate who agree/strongly agree (41%) than those who disagree/strongly disagree (38.34%). Moreover, popular consensus among the respondents shows that improving infrastructure has become extremely difficult by virtue of the chaotic and close-knit nature of the slums. On the other hand, respondents do not popularly share the opinion that slum areas are instigators of flood by virtue of the poor sanitary system prevailing in such areas. Based on these finding the study has the likelihood to conclude that urban settlers poses danger to the society and also faces danger in terms of unavailability and extreme difficulty to install infrastructural facilities.

Table 7: Societal Dangers of Slum Proliferation

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Do you agree that slum areas contribute to high rate of drug abuse?					
Freq.	14	74	92	120	39
Percent	(4.13)	(21.83)	(27.14)	(35.40)	(11.50)
Does proliferation of slum create cultural barriers in the society?					
Freq.	33	119	88	73	26
Percent	(9.73)	(35.10)	(25.96)	(21.53)	(7.67)
Do slum settlers contribute to vandalism in the society?					
Freq.	39	100	70	93	37
Percent	(11.50)	(29.50)	(20.65)	(27.43)	(10.91)
Is the chaotic and close-knit nature make it very difficult to improve infrastructure within a slum area?					
Freq.	55	126	59	64	35
Percent	(16.22)	(37.17)	(17.40)	(18.88)	(10.32)
Do slum areas contribute to flood due to poor sanitary system?					
Freq.	33	89	52	91	74
Percent	(9.73)	(26.25)	(15.34)	(26.84)	(21.83)

Source: Authors' calculations from survey data

6. Conclusions

This study interrogates urban slum and urban poverty and its proliferation in relation to urban development policy It also examines the link between microeconomic environment and incidence of urban slums. This is in relation to pattern of urban proliferation in the different regions to be studied and if slums dwellers and urban poverty pose dangers to the society and faces no dangers. The study employs survey method and Linear regression models as analytical tools. It founds a strong links between microeconomic environment and incidence of urban as well as urban development policy and proliferation of slums. It also found different patterns of urban proliferation in the different regions. It concludes that urban slums dwellers and urban poverty have the likelihood to pose dangers to the society and faces dangers due to lack of necessary infrastructural amenities. Most of the findings of this study is in consonant with the theory of Marginality according to Surbakti (1984) and theory of dependency according to Suparlan (1995). With the findings of this study on socio-economic deprivations and lack basic infrastructure, poor quality of live and house tenure, the study aligns with the work of Zainal, Kaur, Ahmad and Khalili (2012) in Malaysia and that of Malik, Roosli and Tariq (2020) in Lahore.

7. Recommendations

There are solutions to urban slum and urban poverty, one of them which is very imperative based on the findings is urban development policy. The paper recommends a strategic urban development policy to address proliferation of urban slums. It also recommends that demolition of the slums may be disastrous but rather, peculiarity of those tribes living in the creed should be considered and amenities can be provided thus microeconomic environments could

be enhanced and danger they posed or faced will be significantly reduced.

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Part Four
Educational Management

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The Availability, Utilization and Efficacy of Community Resources in the Teaching and Learning of Science for Knowledge Transfer in Senior Secondary Schools in Akwa Ibom State, Nigeria

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Abstract. The study was examined the availability, utilization and efficacy of community resources in the teaching and learning of science for knowledge transfer in senior secondary schools in Akwa Ibom State, Nigeria. The research design was a descriptive survey. The population for the study was all science teachers from both private and public secondary schools in the State. A total of 480 samples were used. A questionnaire titled "Science Teachers Use of Community Resources in Instructional Delivery (STUCRID) questionnaire was used to collect data for the study. Three research questions and a null hypothesis were formulated to guide the study. Findings revealed that: Private and public secondary schools in Akwa Ibom State lacked most community resources for science delivery, some of the community resources available were not utilized, science teachers' rating of the efficacy of community recourses in instructional delivery was high and there was no significant difference in the use of community resources between private and public secondary school science teachers (t= 0.130, df=478;p>.05). It was concluded that for science teachers to be effective in carrying out their instructional functions, there is need to harness and use the abundant resources of the surrounding communities in their teaching.

Keywords: Availability, Utilization, Efficacy of Community Resources, Knowledge Transfer, School Type.

1. Introduction

If effective knowledge transfer is to be achieved through science teaching in this era where entrepreneurial education is greatly emphasized, there should hardly be a separation between the community and the school. It is in this wise that Dada (2013) maintained that it is impossible to divorce the community from the school. According to him, they are glued together and the aspirations of the community are manifestation of the school system. Sometimes, science teachers complain of availability of instructional materials to teach the students even when the resources are numerous around them. This shows the poor relationship that has existed between the school and the community. Community is endowed with resources

Umeje (2008) in his study on survey and documentation of local resources noticed that there were numerous resources in the community that were not utilized by science teachers in teaching. Thompson (2001) in Edet (2018) maintained that the use of any resources should be governed by the principles of selection and consistency and must be in relation to the experiences of the learner. Such materials are most times found in the community, within and outside the school and they are termed community resources.

According to Ajelabi (2000), community resources are human and non-human resources outside the classroom for the purpose of specific information. Community resources afford the teachers and learners the opportunity to make useful exploitation of the necessary resources present in the community for the purpose of learning and for a better outcome. The outcome may likely help in the transfer of such knowledge into the community based skills for societal benefits. Inyang-Abia (2004) sees community resources to comprise of people, places, things, festivals and ceremonies which are useful for

instructing, educating and training. Every resource in the community is useful and important in impacting knowledge and transfer of such knowledge for improved community based skills.

Community resources are perceived differently by different authors. Mkpa (1989) in Tyokyaa (2017) conceives community resources to mean all the things found within the community outside the confines of the school that could be harnessed and used effectively to facilitate the study of some specific subject matter. It could be conceived as all the opportunities within the community that could be used to expand and enrich the learning experiences of the school. Agunwa (1974) in Tyokyaa (2017) confirms community resources to be the learning laboratory especially of the behavioural sciences. Anwukah (1987) in Tyokyaa (2017) posits that:

The nature of the community largely determines what goes on in the school. Therefore, to attempt to divorce the school from the community is to engage in unrealistic thinking which might lead to policies that could wreck havoc with the school and the lives of children. The community and the school are inseparable.

According to NDDC (2011), community based skills includes but not limited to the following: Crop production and machinery, food preservation, agriculture, livestock (piggeries and poultry), carpentry, welding, blacksmithing etc. It can also include making of sleeping mats, foot mats, among others. Nzewi, Nwosu, Onyegegbu, Nwagbo and Nworgu (2009) see community resources as those teaching and learning resources that can be obtained from the community where the school is located. According to them, this may include persons in the community with specialised knowledge or experience (example are doctors, nurses, agriculturists, welders, and other artisans, industrialists, and research institutions) among others .

Taking students on field trips or using other community resources in their classes is not a new idea for teachers. Often, however, these experiences are thought to be frills or rewards that compete with instructional time in the classroom. Curriculum reform in science and mathematics calls for a new look at using community resources. The national standards in science and mathematics suggest that good programmes require access to the world beyond the classroom so that students will see the relevance and usefulness of science and mathematics both in and out of school (SEDL, 1996). Changing the educational experiences of children by moving beyond the classroom walls can diversify the array of learning opportunities and connect school lessons with daily life and real problems.

Teachers always face the task of pulling together the diverse understanding their students bring to the classroom. The use of community resources provides a shared memory for the class. For example, going on field trip is only part of the total experience. As students and teachers talk about the trip and think about it after it is over, they are building shared understanding. The event becomes part of the common knowledge of the class and can be referred to in subsequent lessons. What was learned is, thus reinforced and extended in later discussions as the teacher refers to field observations (SEDL, 1996).

Alasela (2013) notes that no effective teaching can take place without instructional materials. Abolade (2009), in Alasela (2013) states that the relevance of making learning and instructional materials to qualify as community resources is its closeness to both teachers and learners. He mentioned community resources to include religious institutions, such as churches, mosques, and shrines; commercial banks, historical places such as Museum and Zoo; industrial sites etc. These are places of interest where students can visit for further explanation on what they have learnt in textbooks. Olelewa, Nzeadibe and Nzeadibe (2014) maintain that availability of educational resources such as time, information, money, material and human capacity makes a school environment conducive to teaching and learning. They further stated that availability of educational resources is very important because of its role in the attainment of educational objectives and goal. It should be noted that the extent to which an educational institution attains her objectives is directly proportional to the educational resources and their utilizations.

Community resources that can enhance mathematics and science learning include science centres to visit (museums, nature centres, interactive science centres, aquaria, gardens and zoos), places to explore that are unique to the local schools (a nearby creek, pond, city street or business), people in the community, or materials that can be borrowed or purchased (SEDL, 1996**).** Tyokyaa (2015) adapting the collaborative classification of Nicholls and Nicholls (1975) with the classification of Mkpa (1989) categorized community resources into four classes. These are resource personnel, resource places/locations, resource things/materials and resources activities:

Resource personnel: Resource personnel include specialists/professionals, citizens' advisory committees, government representatives, agency

representatives, parents/guardians of students, artisans.

Resource places/locations: Resource places/locations are locations or sites of educational interests which include markets, industrial sites, banks, museums, legislative and other governmental houses or buildings, institutions, professional agency offices or laboratories, workshops, lakes/rivers, farms, mountains/hills, erosion sites, recreational centers, etc.

Resource things/materials: Resource things/materials are all things or materials of educational value within the community which include among others, money, wildlife, water, jewelries, soil, statistical data, minerals, artifacts, tools of work, natural vegetation, motor vehicles, electrical and electronic gadgets, buildings etc and finally

Resource activities: Resource activities include such activities as excursions, field trips, production processes, skills/craft exhibition, banking, marketing, broadcasting, festivals, seminars/symposia, dramatization, role-playing, etc.

The comprehensive categorization of community resources as exposed differently above reveals that there abound adequate relevant community resources that could be mobilized and utilized by teachers to vitalize their teaching and thus make them very effective in the discharge of their duties as teachers. It is in this direction that Mkpa (1989) further asserts that every educational engagement, theory, concept or topic has a resource within the community that could simplify its understanding or make its conceptualization easy. The contentious issue here is for the teachers to identify which community resources will be relevant in teaching which academic subject or topic transferred knowledge. The more the teacher identifies, mobilizes and utilizes the relevant community resource(s) to his advantage, the more effective he is in the discharge of his teaching responsibilities. It is therefore pertinent to state that teachers' effectiveness could be enhanced through harnessing and use of community resources as well as helping the students in knowledge transfer.

Ezeocha (1990) believes that the school exists for the community and the community exists and acts as client to the school. Ezeocha further upholds that the community and the school are two brothers who enjoy mutual benefits as they are crucial in man's struggle for survival in his complex and ever changing society. To Okafor (1988), man's mind is the product of his life experiences and that environmental factors should be given primary consideration in man's upbringing. This underscores the need to expose the learning materials of the child to the environmental realities around him.

It is important to stress that there is the need to institutionalize peace education and peace culture in our school curriculum as this is essential in harnessing the community realities (resources) to the benefits of the students who upon graduation from the school would be confronted with the practical realities of the socio-cultural, religious, economic, political, and security challenges of the society. Tyokyaa (2017) observed that the Nigerian society today is ravaged with the threats of these vices or challenges and our educational system must not only be tailored towards equipping the students with the theoretical competences of confronting the challenges, they must be practically exposed to the realities by engaging them in the instructional programmes that necessarily harness and use the resources as presented in persons, locations, activities or materials that inherently are components of the community or societal realities (threats). This will bring the students closer to the truth or reality of the world around them. The teachers who engage their students in instructional activities that relate to the resources within the community will also become more efficient and effective in their teaching/learning functions.

The importance of community resources cannot be over emphasized. Functional literacy will continue to elude us without some level of relevant resources available. Hence, it will be extremely difficult for Nigeria to achieve the expected goals without adequate provision and use of resources. Tyokyaa (2017) states that for the teachers to be effective in carrying out his instructional function which aims at equipping learners with appropriate competencies to be useful to the society, he has to harness and use the abundant resources of the community in their teaching. Mkpa (1989) in Tyokyaa (2017) posits that successful teaching and learning is depended upon whether it is society or community oriented. Vande-Guma (2014) upholds that human related discipline are better taught and learnt when related to the concrete resources of the community. Tyokyaa (2017) observes that the teacher who adequately mobilizes and utilizes the resources within the community for his instructional function does not only finds his instructional responsibilities motivating and vitalizing, but optimally finds himself very effective in discharging his instructional responsibilities. It is therefore pertinent to assert that the teachers' effectiveness as well as students' ability to transfer knowledge of what they learn could be enhanced if the teachers use community resources

adequately in discharging their instructional duties. Some of the community resources that may be available for science teaching are hereunder discussed:

1.1 Visit to Science Centres

A learning activity must have a purpose or reason so field trips should be thought of as part of the curriculum. As such, they should provide something to think about as well as something to do or some place to go. If possible, the teacher will want to visit the science centre before the field trip to help him balance the needs of the teaching unit with the resources of the site. The teacher can then focus on those exhibits that demonstrate the concepts being taught and match the students' cognitive levels. Learning activities are prepared for use before, during and after the field trip and include students orientation material, such as a map, a list of exhibits to be visited and the educational objectives of the trip. Students generally find interactive exhibit engaging, these exhibits can be appealing and effective tools for teaching science and mathematics and for generating a positive attitude toward learning these subjects even as the knowledge gained can be utilized in daily activities.

1.2 Outreach

Many students do not live near a zoo, nature center, or museum for a field trip to be practical, but numerous other site offer outreach programmes.

1.3 Use of Available Resources Near the School

The lack of a nearby science centre need not be a limitation. Community resources include unconventional sites, such as the tile factory or a hardware store, fabric store, farm, or ranch. While extended field trips can be rewarding, short school yard trip can be equally valuable. These allow children to discover answers for themselves in a familiar context. Whether your school is urban, suburban, or rural, it reflects the habits of its neighbourhood, the hard-topped surfaces, the soils, grasses, and trees, the weather, and so on. The young inquirer can easily return to the school yard for further data gathering if a question is left unanswered or new questions arise. Bringing the community into the classroom can also involve the following:

1.4 Use of Guidance Materials Through the Mail

By necessity, most learning activities occur in the classroom. Organizations can provide materials that enrich the curriculum and provide unique experiences for children. These inexpensive or free materials may be overlooked since they are not produced by educational publishing companies. Numerous national organizations have also developed curriculum materials; guidance materials from professional organizations are useful to the workplace.

1.5 Use of Guest Speakers

Guest speakers from the community can provide new information and experiences to students and link the school to the world outside. The teacher should spend time with the guest before the visit so they can discuss the age level of students and kinds of activities and information appropriate for this age group; the needs of the guest during the visit and his or her general comfort level with children; the topic of the presentation and the students' general knowledge about this topic; and what the teacher can do before to make the visit a success. Staff of state agencies such as Nurses, Doctors, National Orientation Agency (NOA) and Ministry of Science and Technology (MOST) can serve as classroom partners or as knowledgeable resources people.

From all the explanations given above, it therefore means that there are natural and human recourses that are inherent in the community which can be used for teaching and learning science which can help in knowledge transfer and are termed community resources. Okpala (2004) in Edet(2018) emphasized that these resources are cheap and affordable to take the cognizance of the students' immediate needs as well as promote students' creativity, self-reliance, interest, motivation and are action oriented. Mezieobi(1991) in Edet (2018) confirms that community resources help to expose students to their realities of their community and also help them have direct experiences which will concretize the learning contents being taught for knowledge transfer.

Bottrel (1957) in Edet (2018) gives three steps that are involved in using community resources in science teaching as thus: finding the resources or exploration, arranging them for use in teaching and learning situations or organisations, and using them in appropriate ways in planning and carrying out science teaching and learning experiences and activities. Dada (2013) sees two methods of utilizing community resources, by taking the students to the community through field trips, school camping etc and by bringing some aspects of the communities to the school through resource persons, financial aids etc. If maximum knowledge transfer is to be

achieved, the above steps can be considered in the use of community resources.

However, according to Nzewi et al (2009), the use of community recourses are time consuming, difficult to plan and execute, can course changes in school activities, expensive if the school is to be taken to the community, among others. Most science teachers have failed to display resourcefulness: they do not connect the learners with available resources even when the resources are within their reach and this can affect students' knowledge transfer for self -reliance and in solving community based problems.

This study is in line with constructivist theory that emphasizes that students construct their own knowledge based on their experiences with their world. The world around the learners is loaded with materials that can help in acquiring necessary knowledge and information that can be individually internalized and converted to the knowledge needed to transform to the society. Hence, community serves as reservoir of resources needed for learning.

It is against this background that this study sought to examine availability, utilization and the efficacy of community resources in the teaching and learning of science for knowledge transfer in both public and private secondary schools in Akwa Ibom State, Nigeria.

2. Statement of the Problem:

The total dependence on high level technological devices such as overhead projectors, shade projectors, visualizers among others in this era where self-reliance and entrepreneurial skills is paramount in instructional delivery in Akwa Ibom state secondary schools is not only unrealistic but may also not giving the expected result. Apart from the unavailability of these equipment/materials in some public schools, the effectiveness in usage by some teachers in instructional delivery and the accessibility for the students for knowledge transfer is also questionable. The inadequate exposure of science teachers to the environment in terms of community resources in their teaching has posed a serious problem in the utilization of the knowledge of the learners in their daily needs and in solving community based problems. The problem of this study is therefore to determine the availability, utilization and the efficacy of community resources in the teaching and learning of science for knowledge transfer in both private and public secondary schools in Akwa Ibom State, Nigeria.

3. Purpose of the Study

The main purpose of the study was to determine the availability, utilization and the efficacy of community resources in the teaching and learning of science in senior secondary schools. The study specifically was designed to achieve the following objectives:

- To identify the available community resources for science instructional delivery in senior secondary schools.
- To determine the level of utilization of community resources by science teachers in private and public secondary schools in Akwa Ibom State.
- To examine the efficacy of community resources in instructional delivery of private and public secondary schools in Akwa Ibom State.

4. Research Questions

The following research questions were formulated to guide the study:

- What are the available community resources for instructional delivery in Senior secondary schools?
- How do private and public secondary school science teachers utilize community resources in science teaching and learning?
- What is the efficacy of community resources in instructional delivery?

5. Hypothesis

There is no significant difference in the mean scores of science teachers utilization of community resources in private and public secondary schools in Akwa Ibom State.

6. Methodology

The research design employed was descriptive survey. The target population for the study were all science teachers in all private and public secondary schools in Akwa Ibom State. The sample size for the study was 480 science teachers. 200 from private schools and 280 from public schools. All science teachers in the sampled schools were used in the study. A questionnaire titled: Science Teachers use of Community Resources in Instructional Delivery (STUCRID) questionnaire was used to collect data for the study. The questionnaire consisted of three sections. Section A was on demographic information, section B was on the availability and utilization of community resources in instructional delivery by

Science teachers, while section C was on the efficacy of community resources in instructional delivery process. The questionnaire items in section B and C were constructed using a modified four point likert type scale. In addition to the face validity done by experts in the Department of Science Education, Akwa Ibom State University, Cornbach Alpha reliability statistics was used to ensure internal consistency which yielded 0.79 reliability coefficient. Data collected were analysed using frequency count, percentage and mean rating statistical tools. Independent t-test was used to test the hypothesis of the study at 0.05 level of significance.

7. Results

Research Question 1: What are the available community resources for instructional delivery in Senior secondary schools in Akwa Ibom State?

Table I: Percentage scores of the available community resources for instructional delivery in senior secondary schools in Akwa Ibom State.

	RESOURCES	Availability (N = 480)			
		Available	%	Not Available	%
1	Museum	-	-	480	100%
2	Nature centres – streams	340	72.9%	140	27.1%
3	Interactive science centres (eg E-Library)	295	61.5%	85	38.5%
4	Aquaria(fish pond)	140	27.1%	340	72.9%
5	Farms (crop farms)	480	100%	-	-
6	Farms (livestock farms)	220	45.8%	260	54.2%
7	Zoo	-	-	480	100%
8	Ranch	10	2.0%	470	98.0%
9	Nearby creek	15	3.1%	465	96.9%
10	Pond	250	52.0%	230	48.0%
11	Business premises(e.g Electronic, GSM etc stores)	480	100%	-	-
12	Industries (Small Scale And Large Scale)	350	72.9%	130	27.1%
13	Institutions (University/ Polytechnic/ Colleges of Education	380	79.1	100	20.9%
14	Use of Guest speakers from the community (e.g artisans, etc).	150	31.2	330	68.8%
15	Use of professional Guest speakers (Nurses, Doctors, NOA etc).	140	27.1%	340	72.9%

In table 1 only 7 items of community resources were seen as being very much available in the community for instructional delivery. Such items are 2, 3, 5, 10, 11, 12, and 13. Every other items below 50% was rated as not available.

Research Questions 2: How do private and public secondary school science teachers utilize community resources in science teaching and learning?

Table 2: Percentage responses of teachers' utilization of community resources for instructional delivery in Private and Public Secondary schools in Akwa Ibom State.

	RESOURCES	Percentage of Utilization			
		Public Schools	(N= 280)	Private Schools	(N = 200)
1	Museum	-		-	
2	Nature centres - streams	150	53.57%	160	80%
3	Interactive science centres (eg E-Library)	70	25%	150	75%
4	Aquaria (fish pond)	55	19.64%	10	5%
5	Farms (crop farms)	240	85.71%	2	1%
6	Farms (livestock farms)	180	64.28%	2	1%
7	Zoo	-		-	
8	Ranch	10	3.57%	-	
9	Nearby creek	15	5.36%	-	
10	Pond	12	4.29%	10	5%
11	Business premises(e.g Electronic, GSM etc stores)	220	78.57%	180	90%
12	Industries (Small Scale And Large Scale)	28	10%	140	70%
13	Institutions (University/ Polytechnic/ Colleges of Education	250	89.28%	170	85%
14	Use of Guest speakers from the community (e.g artisans, etc).	45	16.07%	65	32.5%
15	Use of professional Guest speakers (Nurses, Doctors, NOA etc).	34	12.14%	32	16%

Table 2 shows teacher utilization of community resources in instructional delivery process. The table reveals that the available community resources utilized in the public secondary school include the items on 2, 5, 6, 11 and 13 while items 2, 3, 11, 12, and 13 were utilized in the private secondary schools.

Research Questions 3: What is the efficacy of community resources in instructional delivery?

Table 3: Mean responses of teacher on the efficacy of community resources in instructional delivery in Private and Public Secondary schools in Akwa Ibom State.

S/N	Items	Mean	Standard Deviation	Decision
1	The use of community resources makes the lesson more interesting.	3.12	1.58	A
2	Community resources make students retain more as they are manipulating known materials.	4.44	1.04	A
3	It makes teaching real and less boring and more rewarding to students	2.88	1.47	A
4	Evaluation of teaching through the use of community resources is easier.	3.50	1.42	A
5	The use of community resources reduces much talking by the teacher but makes teaching more effective	1.16	2.30	D
6	The process is student-oriented in nature.	3.50	1.42	A
7	It is effective for problem solving and knowledge transfer.	2.84	1.60	A
8	It helps in using the natural setting of the community in bringing students into the real life challenges in science	3.39	1.40	A
9	It will help the students to use the events in the community to explore more pervasive and useful science process skills.	3.33	1.54	A
10	It will provide an activity based science learning environment for students to understand the accepted community-science related values.	2.56	1.53	A
11	It will help open formal learning to wider range of cultural experiences in relation to science.	2.09	1.34	D
12	It will enhance effective school and community relationships.	2.17	1.36	D
13	It will help the students to fit their learning to community values, norms and cultural practices and relate them to scientific practices.	2.16	1.38	D
14	It encourages students' interaction with adults in the community, this gives students opportunity to reassess what they know and develop the flexibility necessary to cope with the rapidly changing world.	2.84	1.60	A
15	It will equip students with the skills to promote and sustain youth participation in community based skills for community development.	2.83	1.46	A

*A – Agree, D – Disagree, *Criterion mean – 2.50, weighted mean= 2.71

Table 3 shows teachers mean responses on the efficacy of community resources. The teachers agree on items number 1,2,3,4,6,7,8,9,10,14 and 15 as the efficacy of community resources. While items 5, 11, 12, and 13 were disagree as the efficacy of community resources.
Table 3 further showed that weighted mean score of 2.71 out of the maximum 4.00, is higher than the criterion mean of 2.50. This implies that science teachers' rating of the efficacy of community resources in instructional delivery was high.

Hypothesis: There is no significant difference in the mean scores of science teachers' utilization of community resources in private and public secondary schools in Akwa Ibom State.

Table 4: Independent t-test analysis of teacher utilization of community resources in private and public secondary schools in Akwa Ibom State.

School Type	N	Mean	Std. Deviation	df	t-cal	t-crit
Public Schools	280	30.85	4.039	478	.130	.467
Private Schools	200	30.78	4.008			

*significant at P< .05; df= 478

The result in table 4 reveals a non-significant outcome (t=0.130, P > 0.05). This implies that the observed difference between public school and private school science teachers' utilization of community resources is not statistically significant. Hence the null hypothesis of no significant difference of the mean score of science teachers utilization of community resources in teaching and learning is retained.

8. Discussion of findings

Table I showed that out of fifteen outlined community resources for instructional delivery, only seven were recorded as being much available for the

teaching of science in both private and public secondary schools in Akwa Ibom State, Nigeria. This finding probably is the reason for poor performance in science subjects in secondary schools in Akwa Ibom State, Nigeria. This finding supports the assertion by Alasela (2013) that no effective teaching can take place without instructional materials. In support of this, Olelewa, Nzeadibe and Nzeadibe (2014) maintained that availability of educational resources makes a school environment conducive to teaching and learning.

Table 2 showed that out of fifteen outlined community resources, only 2, 5, 6 and 11 were utilized by public schools science teachers while only 2, 3, 11, 12 and 13 were utilized by private school science teachers. This accounts for poor interest and performance in science at the secondary school level. This is why Ajelabi (2000) adds that extending the classroom into the community can make the learning of science concepts functional, relevant, significant and experiential. Mezieobi (1991) in his study found out that community resources help to expose students to the realities of their community and also make them have direct experience which will concretize the learning content being taught. This is supported by Umeje (2008) who in his study on survey and documentation of local resources noticed that there were numerous resources in the community that were not utilized by science teachers in teaching.

Table 3 showed that science teachers agreed on eleven items out of fifteen as being the efficacy of community resources in the teaching of science concepts. It is based on the level of efficacy of these resources that Umeje (2008) states clearly that teachers should make use of the available natural and artificial resources in the environment to connect students to the realities of their community and make them have direct experiences with what is taught.

Table 4 showed that there was no significant difference in science teachers' utilization of community resources in both private and public secondary schools in Akwa Ibom State, Nigeria. This shows that it will be extremely difficult for Nigeria to achieve the expected educational goals without adequate provision and use of resources in schools.

9. Conclusion

Having realised the importance of community resources in linking the school with the community for knowledge -transfer in science teaching and learning, teachers must be encouraged, supported and finance to expose the students to the opportunities available in the community by linking the theoretical components of their teaching/learning programmes with the practical realities expressed in the resources of the community.

10. Recommendations

Based on the findings in this study, the following recommendations are made:

- Science teachers should be encouraged in linking the school to community. It could be done by engaging the students in education tours to sites, and locations as well as inviting professionals, technocrats and even artisans to teach or demonstrate some skills to students in the school.
- Cordial school-community relationship must be encouraged as this will bring about relational activities between the school and the community.
- The management of both private and public secondary schools in the State should formulate policies that will encourage the use of community resources in their schools.

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Influence of Social Media Campaign Messages on Awareness and Knowledge of Cervical Cancer among Female Undergraduates in South-West Nigeria

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Abstract. Cervical cancer is a major global public health challenge, ranking as the second most prevalent cancer among women in Nigeria. Where screening programmes are available, lack of awareness and poor knowledge can lead to poor attitude towards the utilisation of such programmes. Deploying the mass media remains a viable health communication strategy in creating wide-spread awareness on cervical cancer. Particularly, with social media, being the most popular communication platform utilized by youths, it can be effective in promoting early detection of cervical cancer among young female adults who are susceptible to the disease once sexually active. Therefore, this study examined the awareness and knowledge of cervical cancer on social media by female undergraduates in South-West Nigeria. A total of 644 questionnaires were administered in eight universities using multiple sampling techniques. Mean, standard deviation and simple regression were used in the analysis of data gathered. Results revealed that social media campaign messages on cervical cancer had a significant influence on participants' awareness of cervical cancer (*F-statistic* = 51.114; *p-value* = 0.000), and knowledge of cervical cancer (*F-statistic* = 49.049; *p-value* = 0.000). The study concluded that exposure to social media campaign messages on cervical cancer can effectively shape awareness and knowledge of cervical cancer. It's recommended that health educators should strategically increase social media content that would bolster awareness on cervical cancer, particularly among the female youth demography.

Keywords: Social Media Campaign Messages, Awareness, Knowledge, Cervical Cancer, South-West Nigeria

1. Introduction

Cervical cancer is a type of cancer that develops in the cells of the cervix, the part of the uterus that connects to the vagina. It is caused by a virus known as the Human Papilloma Virus (HPV), especially of serotypes 16 and 18 (World Health Organization (WHO), 2017). This virus is sexually transmitted and persistent infections with it causes cervical cancer if not detected on time and treated. Infection with HPV has a slow progression of about 10 – 20 years from normal cells to pre-cancer cells then finally to invasive (WHO, 2021). The 10- to 20-year interval between pre-cancer and cancer provides sufficient opportunity to screen, detect and treat pre-cancer and avoid its developing into cancer. However, the progression in immune-compromised women (that is those living with HIV) is usually faster.

Cervical cancer is a major public health concern, globally; cervical cancer ranks the fourth most recurrent cancer in women with 570,000 new cases accounting for 6.6% of all female cancers, and 311,000 deaths from the disease recorded in 2018 (UNAIDS, 2019; WHO, 2019). Nigeria ranks 5th among countries when it comes to death count from cervical cancer, after India, China, Brazil and Bangladesh (Cervical Cancer Global Crisis Card, 2013). Current report indicates that yearly, 14, 943 women are diagnosed with cervical cancer and 10,403 die from the disease out of a population made up of 50.33 million women who are 15 years and above, and are at risk of coming down with cervical cancer (ICO/IARC, 2018; Bray, Ferlay, soerjomataram, Siegel, Torre Jemal, 2018). This situation is not encouraging because the target age range is useful to any given society, women of the stipulated age are usually at the peak of their career,

their expected time for meaningfully contribution towards social and economic growth of the society.It was also estimated that if cervical cancer prevention, screening and treatment are not immediately and urgently scaled up, there could be a 50% increase in mortality over 2018 levels by 2040 (UNAIDS, 2019).

Communication can be used to reduce the incidence of this disease by creating awareness through the use of social media especially among young female adults who are sexually active and heavily dependent on social media. Social media has been shown for the remarkable role that it plays as an effective communication and information dissemination tool (Sobaih, Hasanein, & Abu Elnasr, 2020; Farinloye, Wayne, Mogaji, & Watat, 2020). Several campaigns on social media exist to create awareness and provide the basic knowledge required to combating cervical cancer. For instance, "Cervical Cancer Awareness Campaign 2020" is an educational video on YouTube which is a community initiative by Zulekha hospital Dubai. The campaign announces that early detection of precancerous cells helps to prevent cervical cancer in adults and HPV vaccination can also check its occurrence in girls. Another is 'SmearMyWoman '- Cervical Cancer Campaign by Chain Reaction Nigeria, made up of a group of men who have decided to free the women in their lives of cervical cancer by educating them and offering free cervical cancer screening to them. Existing research has underscored the importance of the Internet and social media in catalysing access to information about cervical cancer (Banik, Naher, Rahman, & Gozal, 2020). However, effectiveness of cervical cancer campaign using social media faces a number of challenges in developing countries like Nigeria. These challenges include cost of Internet data, poor Internet access, cost of acquiring smartphones, and lack of technical knowledge, amongst other issues, continue to challenge the effectiveness of social media cervical cancer campaigns (Ali., 2011).

Therefore this study was carried out to examine the influence of social media campaigns on awareness and knowledge of cervical cancer prevention messages among female undergraduates in South-West Nigeria.

2. Empirical Review

2.1 Women's Awareness of Cervical Cancer

Existing literature had showed that awareness was possibly the biggest challenge public health and medical professionals face in the battle against cervical cancer worldwide. In Nigeria, studies undertaken within the previous decade (2010 – 2019), also revealed that this challenge still exist in various regions and zones of the Country. For example, Oluwole et al. (2017) surveyed 400 rural women in Lagos, Nigeria, aged 38.9± 9.51 years on the average, to discover an awareness rate of 15%, while only 13.3% of this figure had ever undergone screening for the disease (none of which had been done within the prior three years). This conformed with the findings of Abiodun et al. (2017), in surveying 318 women in another south-western Nigerian State (Oyo), wherein was discovered that only 22.6% were aware of cervical cancer. 17.9% were aware of screening tests as a preventive measure for the disease, while only 1.6% had ever undergone screening tests; even though 5.7% believed that they may be at risk of cervical cancer.

In a related study, Akanbi, Iyanda, Osundare, and Opaleye (2015) sampled 737 women who were randomly picked from the general population in two south-western States of Nigeria and recorded that awareness level of HPV among women in southwest Nigeria is low (18.5%). Respondents were more knowledgeable on cervical cancer than HPV (64.3%), they had the idea that the primary cause of cervical cancer is HPV (27.5%). This aspect of the study of participants being more aware of cervical cancer contrasts the studies of (Hyacinth, et al 2012; Ndikom and Ofi 2012,; Bisi-Onyemaechi, 2018) which reported that participants awareness of cervical is low. The study also revealed that respondents' information source was through the media, and that getting information through health care system was very poor. Health workers stand the chance of educating their clients when they come to the hospital for consultation. However, this study reveals that much of this is not done. Based on the result that in south western Nigeria, knowledge of HPV and cervical cancer is low, the researchers recommended that Nigerian women of child-bearing age should be educated on cervical cancer since they are not likely to get regular Pap smear tests. Also, there is the need to increase immunization facilities and make it available across the country (Akanbi, et al, 2015).

However, some studies have reported that in their area of study, awareness of cervical cancer, screening and HPV vaccines were high. For example Okunowo, Daramola, Adaiah, &Soibi-Harry, (2018) reported a high level of awareness of cervical cancer and Pap smear test as 80% and 55.1% respectively among a sample of 205 pregnant and non-pregnant women attending antenatal and gynaecological out-patient clinics at the Lagos. And this high level of awareness is attributed to the fact that majority of the

participants are educated. This was not the case of Olubodun et al (2019) as their study reported low level of awareness of cervical cancer because majority of their study subject had just secondary education. However, the high level of awareness of cervical cancer in this study did not translate into knowledge as the study recorded a low level of knowledge of cervical cancer as only 40.0% and 15.6% could identify the symptoms and risk factors of cervical cancer respectively. Okunowo, *et al.*, (2018) also recorded a low level of Pap smear uptake, only 22.9% of the respondent had ever done Pap smear test and the commonest reason given was lack of awareness and non-recommendation from the doctor ().

2.2 Women's Knowledge of Cervical Cancer

Extant literatures have evidences that knowledge on cervical cancer is a major challenge as it concerns the battle against cervical cancer. Studies conducted in and outside of Nigeria reveal that knowledge on cervical cancer which includes but not limited to its risk factors, symptoms and preventive measures, just to mention a few is low. Whereas knowledge of cervical cancer and its risk factors are important elements in deciding for uptake of screening, most women lack this knowledge so they do not perceive that they are susceptible to the disease (Oche, et al 2013, Ubajaka, et al., 2015; Yi-Jung, et al., 2015).

Existing literature shows that most women lack knowledge of cervical cancer which has translated into poor attitude and negative attitudes towards preventive measures. For example, Olubodun, et al., 2019 sampled a total of 305 women, only (12.8%) had heard of cervical cancer. Only a few per cent of the women could identify a risk factor of cervical cancer and the symptoms. This low level of knowledge could be attributed to their level of education as most of the women had attained only secondary school education**.** Aweke, et al., (2017), investigated women of childbearing age in Ethiopia and found out that (46.3%) of the respondents did not have all-inclusive knowledge of cervical cancer. Ogbonna (2017) also revealed that only (10.8%) reported that they have knowledge of cervical cancer and 42.5% of students were not able to recognize the danger factors of cervical cancer, while others were in some measure confident in making out the risk factors of cervical cancer.

However, some studies reported high knowledge of cervical cancer risk factor, symptoms and preventive measures. For instance, Neji, *et al.,* 2019; Toye, *et al.,* 2017;) reported that many of the respondents in their study area had good knowledge about cervical cancer and screening, and risk factors associated with the development of cervical cancer.

3. Theoretical Framework

Theoretical underpinnings were drawn from Blumler and McQuail's (1969) Uses and gratification theory which deals with their classification of what motivated audience for watching political programs during the election of 1964 election in the United Kingdom and Ajzen and Fishbein's (1980) theory of planned behaviour. In summary, the uses and gratification theory is based on social communication, it is audience focused. It seeks to know why people look out for media and what it is used for rather than what the media do to them. Uses and gratification theory (UGT) posits that individuals have power over how they use the media, rather than placing individuals as inactive consumers of media, it positions them as very active. The theory is relevant to this study in the sense that the viewers or users of the social media have needs they need to gratify so they choose the medium of their choice to gratify these needs. If the audience member has a health need, he has a lot of options before him to choose, so he has the power to choose the option that soothes him most. So users of the social media who decided to view these educational videos on cervical cancer did this because they had health needs they needed to gratify and among all the options available to them, they chose the social media and vice versa.

On the other hand, the main crust of this the theory of planned behaviour is that individuals make rational, sound decisions to engage in a particular behaviour by assessing the information available to them (Sarah, 2010). This means that every human behaviour is based on voluntary control by the individual, before an individual takes any action, he has to consider it first, weigh the threats and benefits before acting. He does not just act; he evaluates the information he is already exposed to.

4. Research Materials and Methodology

The setting of the study was the south-west geopolitical zone of Nigeria made up of six states namely; Oyo, Lagos, Ekiti, Ondo, Ogun and Osun. The multiple sampling techniques were used for this study. Firstly, three states were purposively selected (Ogun, Oyo, and Ondo States) because they have more number of universities when compared with the remaining states that make up the south western states. Furthermore, the universities in the three states were stratified by ownership into public and private respectively; and then randomized using an

alphabetical sort. Thereafter, systematic sampling technique was adopted to select every third university from the list of universities per stratum, afterward; cluster sampling technique was used to select the schools and random sampling to select the respondents.

A pretested structured questionnaire was used for the study. The researchers with two trained research assistants administered a total of 776 copies of the instrument between February and March, 2022. Completed instruments were analysed using descriptive and inferential statistical tools of mean, standard deviation and frequencies, while hypothesis was tested using simple regression. Ethical approval was obtained from Babcock University Health Research Ethics Committee (BUHREC).

5. Results

From the administered and retrieved instrument, 644 were validated for analysis, resulting in 82.9% response rate. The Cronbach's alpha value from the reliability analysis of variables included in the study was 0.851.

Table 1: Demographic characteristics of respondents

Variable	N = 644	(%)
Age (years)		
16 – 18	171	26.6
19 – 21	297	46.1
22 – 24	122	18.9
25 – 27	45	7.0
28 and above	9	1.4
Level		
100	126	19.6
200	122	18.9
300	236	36.6
400	130	20.2
500	30	4.7
Religion		
Christianity	466	72.4
Muslim	161	25.0
Others	3	.5

(Field Survey, 2022)

Table 1 shows that most of the respondents (46.1%) are within the age range of 19 and 21 years, while 26.6% of the respondents are within the age range of 16 and 18 years. Also, the results show that 18.9% of the respondents are between the ages of 22 and 24 years. However, only 8.4% of the respondents are above the age of 25 years.
Results further reveal that 36.6% of the respondents are in 300 level in their studies, and 20.2% are in 400 level. Also, 19.6% and 18.9% of the respondents are in 100 level and 200 level respectively. However, only 4.7% of the respondents are in level 500 of their studies.
The details also show that majority of the respondents 72.4% are Christians, while 25% are Muslim. However, 0.5% of the respondents indicated that they belong to other religions besides Christianity and Islam.

RQ1: **What is the awareness of female undergraduates regarding social media cervical cancer campaigns?**

Table 2: Respondents' awareness of social media campaigns on cervical cancer

Variable	N = 644	(%)
Have you come across any cervical cancer campaigns on various social media?		
Yes	310	48.1
No	317	49.2

Table 2 reveals that about half of the respondents i.e. 49.2% indicated that they have not come across any cervical cancer campaign on any social media platform. However, 48.1% of the respondents reported to have seen cervical cancer campaigns on social media.

Table 3: Respondents' awareness of social media campaign messages on cervical cancer/Awareness of cervical cancer disease

	Mean	Std. Dev.	Percentiles		
			25th	50th	75th
Social media campaign awareness score	5.0575	2.8292	3.00	5.00	8.00
Awareness of cervical cancer disease	2.3727	.89108	2.00	3.00	3.00

The result further reveals that the respondents on average have moderate awareness of social media campaign messages on cervical cancer disease (Mean = 5.0575, Std Dev = 2.829). More details on Table 3a

Table 3a: Social media cervical cancer campaigns awareness score

	Mean	Std. Dev.	Percentiles		
			25th	50th	75th
Make the commitment campaign	.7298	.44440	.00	1.00	1.00
MAX AND PIA for cervical cancer prevention	.6242	.48470	.00	1.00	1.00
Healthier Scotland fight cervical cancer campaign	.6273	.48389	.00	1.00	1.00
Cervical Cancer Prevention AD	.6180	.48625	.00	1.00	1.00
Save Lives Campaign	.A6475	.47812	.00	1.00	1.00
Cervical cancer 'I-did' Campaign	.5466	.49821	.00	1.00	1.00
What is HPV Cervical Cancer Campaign	.6366	.48134	.00	1.00	1.00
Smear my Woman - Cervical Cancer Campaign	.6273	.48389	.00	1.00	1.00
Average social media campaign awareness score	**5.0575**	**2.8292**	**3.00**	**5.00**	**8.00**

RQ2: How do social media cervical cancer messages influence female undergraduates' awareness of the disease?

Table 4: Social media cervical cancer awareness/awareness of cervical cancer disease

	Mean	Std. Dev.	Percentiles		
			25th	50th	75th
Social media campaign awareness score	5.0575	2.8292	3.00	5.00	8.00
Awareness of cervical cancer disease	2.3727	.89108	2.00	3.00	3.00

Table 4 reveals that the 50th percentile score of 5.0 further indicate that 50% of the respondents had moderate to high awareness of the disease via social media campaigns. Also, the respondents have on average moderate level of awareness of cervical cancer disease (Mean = 2.3727, Std Dev = .89108). Details on Table 4a

Table 4a: awareness of cervical cancer disease

	Aware	Not Aware
	Freq. (%)	Freq. (%)
Are you aware that the cervical cancer disease is preventable?	535 (83.1)	109 (16.9)
Are you aware that the cervical cancer disease can be treated if detected early?	502 (78.0)	142 (22.0)
Are you aware that certain risk factors predispose you more to contracting the cervical cancer disease?	491 (76.2)	153 (23.8)

RQ3: What is the influence of social media cervical cancer campaigns on the knowledge of female undergraduate**s** about cervical cancer?

Table 5: Knowledge of cervical cancer risk factors, symptoms, and prevention.

	Mean	Std. Dev.	Percentiles		
			25th	50th	75th
Risk Factors of Cervical Cancer	6.267	1.716	5.00	6.00	8.00
Symptoms of Cervical Cancer	3.135	1.152	2.00	3.00	4.00
Prevention of Cervical Cancer	6.404	1.661	6.00	7.00	7.00
Average Knowledge score	**15.807**	**3.107**	**14.00**	**17.00**	**18.00**

Table 5a: Decision rule for the measurement of cervical cancer disease knowledge

Variables	Expected weighted score	Decision rule
Risk Factors	9	Score < 4.5 = low, 4.5 – 6.49 = moderate, 6.5 – 9 = high
Symptoms	9	Score < 2.5 = low, 2.5 – 3.49 = moderate, 3.5 – 5 = high
Prevention	5	Score < 4.5 = low, 4.5 – 6.49 = moderate, 6.5 – 9 = high
Overall Knowledge	23	Score < 11.5 = low, 11.5 – 18.49 = moderate, 18.5 – 23 = high

Applying the decision rules as specified in table 5a, details in table 5 reveals that the respondents on average have moderate knowledge of the risk factor of cervical cancer disease (Mean = 6.267, Std Dev = 1.716). The 25th percentile score of 5.0 further supports this result, as it shows that 75% of the respondents had scores greater than 5 which is between moderate to high level of knowledge. Also, the respondents on average have moderate knowledge of the symptoms of cervical cancer disease (Mean = 3.135, Std Dev = 1.152). The 50th percentile score 3.0 reveals that 50% of the respondents had scores between moderate and high knowledge of the symptoms of cervical cancer disease. The results further reveals that the respondents on average have moderate knowledge of the preventive measures of cervical cancer disease (Mean = 6.404, Std Dev = 1.661). And the 25th percentile score of 6.0 further illustrates that 75% of the respondents have between moderate to high knowledge of the preventive measures for avoiding cervical cancer disease.

The overall knowledge score of the respondents, reveal that on the average they have moderate knowledge of cervical cancer disease (Mean = 15.807, Std Dev = 3.107). And the 25th percentile score of 14.0 also shows that 75% of the respondents have between moderate to high knowledge on cervical cancer disease. Details on Table 5b.

Table 5b: Knowledge of cervical cancer risk factors, symptoms, and prevention

	Mean	Std. Dev.	Percentiles		
			25th	50th	75th
Risk Factors of Cervical Cancer	**6.267**	**1.716**	**5.00**	**6.00**	**8.00**
Having many different sexual partners predisposes one to cervical cancer.	.8711	.33533	1.00	1.00	1.00
Smoking is a risk factor for cervical cancer.	.6708	.47029	0.00	1.00	1.00
An early first sexual experience is a predisposing factor for cervical cancer.	.7764	.41698	1.00	1.00	1.00
Giving birth to many children is a risk factor for cervical cancer.	.5505	.49783	0.00	1.00	1.00
Eating too much carbohydrate is a risk factor	.4224	.49432	0.00	0.00	1.00
Early detection and treatment of the causative human papilloma virus (HPV) reduces the risk of cervical cancer.	.7857	.41064	1.00	1.00	1.00
Having multiple sexual partners predisposes one to cervical cancer.	.7935	.40512	1.00	1.00	1.00
Poor nutrition that weakens the body's immune system is a risk factor for cervical cancer.	.7267	.44600	0.00	1.00	1.00
I can have cervical cancer if any of my parents or grandparents have ever had the disease.	.6724	.46972	0.00	1.00	1.00
Symptoms of Cervical Cancer	**3.135**	**1.152**	**2.00**	**3.00**	**4.00**
Irregular menstrual flow is a symptom of cervical cancer.	.6770	.46798	0.00	1.00	1.00
High Fever is a symptom of cervical cancer	.4224	.49432	0.00	0.00	1.00
Bleeding after intercourse is a symptom of cervical cancer.	.7764	.43879	1.00	1.00	1.00
Red eyes indicate the presence of cervical cancer in the body	.5652	.49611	0.00	1.00	1.00
Foul smell from the vagina is a symptom of cervical cancer.	.6988	.48869	0.00	1.00	1.00
Prevention of Cervical Cancer	**6.404**	**1.661**	**6.00**	**7.00**	**7.00**
Cervical cancer is deadly and preventable.	.8385	.36827	1.00	1.00	1.00
The Pap smear screening helps to detect precancerous cells in the cervix, thereby preventing cervical cancer.	.8416	.36539	1.00	1.00	1.00
Regular screening for sexually active females helps prevent cervical cancer.	.8059	.39581	1.00	1.00	1.00
Drinking local herbal mixtures help to prevent cervical cancer.	.4503	.51631	0.00	0.00	1.00
Delaying the onset of sexual experience is a way of preventing cervical cancer.	.6491	.47763	0.00	1.00	1.00
The human papilloma virus (HPV) vaccine is a sure prevention for cervical cancer.	.7531	.43154	1.00	1.00	1.00
Avoiding multiple sexual partners is a way of preventing cervical cancer.	.7686	.42203	1.00	1.00	1.00
Engaging in regular fasting and prayers helps to prevent cervical cancer, regardless of my lifestyle.	.4953	.50037	0.00	0.00	1.00
Eating lots of vegetables and fruits boost the immune system and helps prevent cervical cancer.	.8028	.39820	1.00	1.00	1.00
Average Knowledge score	**15.807**	**3.107**	**14.00**	**17.00**	**18.00**

Test of hypothesis

$H_0$1: There is no significant influence of social media cervical cancer campaigns on female undergraduates' awareness of the cervical cancer disease

Table 6: Regression results of the influence of social media cervical cancer campaign on the awareness of cervical cancer disease

	Unstandardized Coef		Standardized Coef	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.940	.069		27.990	.000
Cervical cancer social media campaign	.086	.012	.272	7.149	.000

Dependent Variable: Awareness of cervical cancer disease
R = 0.272 R^2 = 0.074 F = 51.114 Sig. = 0.000

(Field Survey, 2022)

Table 6 shows that the influence of social media cervical cancer campaigns among female undergraduates on their awareness of cervical cancer disease is statistically significant at 1% level of significance [F-statistic = 51.114; *p*-value = 0.000]. This implies that respondents' exposure to cervical cancer messages on social media influenced their awareness of cervical cancer.

$H_0$2: There is no significant influence of social media cervical cancer campaigns on female undergraduates' knowledge of cervical cancer.

Table 7: **Regression results of the influence of social media cervical cancer campaign on the knowledge of cervical cancer disease**

	Unstandardized Coef		Standardized Coef	T	Sig.
	B	Std. Error	Beta		
(Constant)	14.328	.242		59.186	.000
Cervical cancer social media campaign	.293	.042	.267	7.003	.000

Dependent Variable: Knowledge of cervical cancer risk factors
R = 0.267 R^2 = 0.071 F = 49.049 Sig. = 0.000

(Field Survey, 2022)

Table 7 reveals that the influence of social media cervical cancer campaigns among female undergraduates on their knowledge of cervical cancer disease is statistically significant at 1% level of significance[F-statistic = 49.049; *p*-value = 0.000]. This implies that respondents' exposure to cervical cancer messages on social media influenced their knowledge of cervical cancer.

6. Discussion

This study investigated the influence of social media cervical cancer messages on awareness and knowledge of female undergraduates in South-West Nigeria. The result shows (83.1%) of the respondent are aware that cervical cancer is preventable, (78%) are aware that cervical cancer can be treated when detected early while (76.2%) are aware that certain risk factors predispose them more to contracting the disease. This present study confirms the studies of Shafei *et al.,* 2013; Biobaku, *et al.,* 2015; Okunowo *et al.,* 2018; Adejuyigbe, et al.,2015; Owoeye & Ibrahim 2013) as they recorded high awareness of cervical cancer. Okunowo et al.,(2018) reported a high level of awareness of cervical cancer and Pap smear test as 80% and 55.1% respectively among a sample of 205 pregnant and non-pregnant women attending antenatal and gynaecological out-patient clinics at the Lagos. Similarly, Adejuyigbe, et al., (2015) investigated medical students in Southwest Nigeria and discovered that 95.4% of the respondents reported that they were aware of cervical cancer. But contradicts some previous studies that have mentioned lack of awareness as a major reason for non-compliance to preventive messages on cervical cancer (Eze *et al.,* 2012; Oluwole *et al*., 2017; Karaimu & Kimotho, 2016; Hyacinth, *et al*., 2012; Balogun et al., 2012, Ndikom & Ofi, 2012; Abiodun et al., 2013; Abiodun et al., 2017; Bisi-Onyemaechi, 2018) Ezeanochie and Olasimbo (2020) reported an awareness rate of 3%.

On knowledge of cervical cancer, the findings of this study agree with the results of (Biobaku, et al., 2015; Oche et al., 2013; Ubajaka et al., 2015; Neji, *et al.,* 2019; Toye, *et al.,* 2017;) who reported that many of the respondents had good knowledge about cervical cancer and screening, and risk factors associated with the development of cervical cancer. The moderate high knowledge in this study could be attributed to

the fact that since respondents are in an academic environment, they may have read about cervical cancer or been taught about it in class. But contrasts the studies of Khan, *et al*., 2016; Ogbonna, 2017; Okunowo *et al.*, 2018; Mruts & Gebremariam 2018; Oluwole *et al., 2017*; *Isa et al.*, 2016, Olubodun *et al.*, 2019), as they reported low levels of knowledge of cervical cancer. For instance, Ogbonna (2017) revealed that only (10.8%) reported that they have knowledge of cervical cancer and 42.5% of students were not able to recognize the danger factors of cervical cancer, while others were in some measure confident in making out the risk factors of cervical cancer.

7. Conclusion

This study examined the influence of social media cervical cancer messages on awareness and knowledge of female undergraduates in South-West Nigeria and that respondents' awareness and knowledge about cervical cancer is moderate. This implies that the awareness and knowledge about this disease is neither low nor high. This indicates a middle ground suggestive of the fact that more conscious effort be put in place to increase or induce more awareness.

8. Recommendations

With the significant influence social media campaigns on cervical cancer had on creating awareness about cervical cancer and knowledge on cervical cancer, the use of social media for creating awareness is recommended to the Nigerian ministry of health, Public health organizations, non-governmental organizations and all health educators and communicators.

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Educational Services Deregulation, Admission Criteria and Quality of Products in Nigerian Universities

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Abstract. The purpose of the study is to investigate the impact of deregulation of educational services, admission criteria and quality of products in both public and private universities. Two research questions and two hypotheses guided the study. Data were elicited based on the following variables as they relate to ensuring admission criteria and quality of products. The theoretical framework of the study is based on public interest theory of deregulation, the design of the study is ex-post facto while the population of the study is all academic administrators in both public and private universities in the study area, and the sample size is 714. Questionnaire titled: "Deregulation of provision of Provision of Educational Services and Quality Assurance in Nigerian Universities" is the main instrument used for generating data. The instrument was subjected to scrutiny by three experts. T-test statistic was used to test the two null hypotheses at 0.05 level of significance. The results show that there is a significant difference in the mean rating of academic administrators in public and private universities in deregulation of educational services on admission criteria as well as quality of products in Nigerian universities.

Keywords: Deregulation, Educational services, Admission criteria, Quality of products, Nigerian universities.

1. Introduction

Recent events in the twenty first (21st) century points to the fact that education is a necessary condition precedence for the development of the society. Thus, this makes the postulation of the pragmatist philosophers a reality. For the pragmatist philosophers, education is a necessity of life. Their stand is borne out of the fact that the development of any nation is predicated upon the knowledge base of the citizens. This goes to tally with what Francis Bacon in his work titled "Meditation' as cited by Ogar and Asira(2012) said "ipsa Scientia potentas est". these phrases were derived from the latain aphorism "scientia potents est" meaning "knowledge is power".

Knowledge is power here implies that any man who has acquired any level of education has control on his life and environment using the strength of the knowledge so acquired. The ability to acquire knowledge, preserve and pass it on to the future generation makes man powerful. It enables him to control the forces of nature and use them for his benefit or advantage. By so doing, man will be able to transform his environment.

Okafor (2004:230) elucidly buttering this point eloquently wrote:
Never in any other period of man's history has it become as evident as it is today that the wealth and power of a nation depend on the successful education of its citizens, and in the number of highly talented men and women within the national compass a nation succeeds in providing with superior and divergent education.... Education is the wheel-base around which all the other factors revolve. It serves as a catalyst to individual self-actualization, national development, and international relations.

Education, therefore, as a process for the acquisition of knowledge, is the most important weapon which can be used to change the world. With all these importance, should it be deregulated? Is quality assurance necessary in any educational system? Can admission process be used as a yardstick to ensuring quality in the educational system? And finally, how can the products of an educational system be used in

ensuring quality in the educational system? These and many other unanswered questions, gave impetus to the to the choice of this work.

1.2 Conceptual Framework

Education by categorization can be either traditional, Islamic and Western. Traditional education is akin to a particular or community, or has to do with the culture, mores values and beliefs of such a society. In a nutshell, it revolves around the transmission of the culture of such a society from one generation to another. "Traditional Education is also a process by which the community seeks to open its life to all the individuals within it and to pass on to them its culture" (Okafor, 2004:352). Islamic education emanated out of Islam as a religious sect, therefore Islamic education is the inculcation of Muslim culture- this culture of theocentrism, having the teachings of Mohammad as substratum. Here schools are established and or in connection to Mosque.

Western education on the other hand is akin to the western world. It is an educational system that originated from the West after Islamic education. Its main approach was the modernization of social life through science and technological advancement. In other to achieve its aim, it is segmented into various levels or segments starting with the lower level known as primary or elementary, followed by secondary and then higher or tertiary levels.

Tertiary education is the educational level after the secondary. It comprises the Polytechnics, Colleges of Education/Agriculture and the University. The University is set apart from any of the aforementioned because of its peculiarities.

Western education was imported into Nigeria. At the early stage of its importation, the management or control was left in the hands of those who initially brought it (the missionaries). Colonial government or administration did not show enough commitment. But later, due to the public out-cry and the huge financial involvement but lean financial resources of the missionaries, government began to show interest. As time went on too, government shifted it responsibilities of funding education back to the missionaries and other public spirited individuals who showed interest in the provision of educational services. This gave birth to the concept or idea of deregulation.

Deregulation technically put, and as it is applicable to this study means withdrawal from solely been the provider of education (Danhassan & Abducrnrine, 2005). By Implication, government of Nigeria threw open the doors of the provision of Western Education by allowing interested individuals or corporate bodies to participate. This view tallies with Ejide (2005:16) who avers that deregulation of education means "decentralizing the control of educational system, free the schools from rules, mandates and government' monopoly and allowing the control of the educational system to revolve on Local authorities nearer to the students". Furthermore, according to Ekpo & Atuna (2005:63) "Deregulation as a new applicable concept in education means government divesting its interest in its and encouraging private sector participation in the management of the pre-determined objectives and goals of education".

As stated above, one of the pre-determined objectives and goals of education is to ensure quality in the system so that its products can compete favourably in the labour market (Archibong, 2013). This brings to mind, the concept of Quality Assurance. Quality Assurance in this context refers to whether the current educational system in Nigeria when placed side by side with other educational systems of other countries can stand the test of time. Quality assurance also involves a systematic procedure of ensuring that education is meeting the specified conditions requisite to the actualisation of its goals.

Admission criteria is another variable in ensuring quality assurance. The Federal Republic of Nigeria (2004) saw the need for this and clearly stipulated that each tertiary institution is at liberty to select candidates for admission. It went further to state that this has to be done in conjunction with the authorised board. In this sense, the authorised Board is Joint Admission and Matriculation Board (JAMB). JAMB has the prerogative of conducting quality entrance examinations for intending candidates and setting the cut – off marks. Of recent, there is duplication of functions as various universities or tertiary institutions are now organising Post – UME (tagged screening or aptitude test). The essence of this is to synchronise candidates' scores in JAMB. Admission into all universities therefore must be on merit. Laid down parameters must be strictly adhered to by both public and private tertiary institutions. Entry requirements is another yardstick for admission. Candidate must of necessity possess five credits either at one or two sittings in relevant subjects relating to candidates' proposed course. If this is maintained, the end products will be credible graduates.

One problem that greatly confronted the education sector before the introduction of deregulation was auspicious situation where most graduates from the nation's tertiary institutions can neither defend their certificates nor compete favourably with their peers or counterpart from outside the country or where they cannot cope in their work places or labour market. Quality product from any institution is a result of good and well articulated input. The essence of education in Nigeria is to make products of the system to be useful to themselves and the society at large. A good quality product here refers to a good graduate from the various tertiary institutions whether public or private. A graduate from university 'A' should be able to compete favourably with another graduate from university 'B' or a graduate from outside the country.

From the fore-going, quality assurance becomes the bedrock of any system of university education the world over. It has become pertinent to rebrand university education in Nigeria as well. The underlying purpose is to ensure that universities produce high quality and competence graduates who can compete globally in their respective discipline (Ehi-Oshio, 2016).

The genesis of university education in Nigeria started with the establishment of the Yaba College of Education in 1932 which gave birth to University College in Ibadan 1948 as a campus of the University of London. With the setting of the Ashby and Harrison Commissions in 1959 and 1960 respectively to examine the man power need of the country, and their recommendations that the country needed both intermediate and higher level man power, more universities were established. The Universities are: the Universities of Nigeria, Nsukka, (1961), Ahmadu Bello University, Zaria (1962), University of Lagos (1962), University of Ife (1962), and University of Benin (1970), (Obunadike, 2011).

University is a tertiary level of educational institution for the purpose of impacting higher level knowledge. Admission into it is after the attainment of secondary and/or National Diploma or Nigerian Certificate in Education. University education prepares people for the acquisition of knowledge and skills for effective job performance in all facets of the national economy and an individual's personal life (Mgbekem, 2004). In other words, university education offers people specialized education, making them experts in their respective fields (Obunadike, 2011). The only medium open to them to do or achieve this is strict compliance to quality assurance indicators as laid down by the various regulatory bodies mandated to do this. For instance, Okojie (2010:101) writes that "the National Universities Commission is a regulatory agency for university education in Nigeria which has the mission of ensuring the orderly development of a well coordinated and productive university system that will guarantee quality and relevant education for national development and global competiveness'. But unfortunately today, most of the universities are in dire need of quality staff, dilapidated buildings are scattered everywhere in our university campus, infrastructural facilities are in short supply, admission processes are shrouded in secrecy with many candidates each year not being able to secure admission.

The stake-holders in university education as well as parents and employers are complaining about the inability of graduates from the university system to defend their certificates. Mbipom, Bassey and Archibong (2004) carried out a study on the topic "Students Perception of Education Deregulation Policy in South – eastern Nigerian Federal Universities". The purpose of the study was aimed at investigating students' perception of education deregulation policy. Two hypotheses were formulated to guide the study while the design adopted to carry out the study was survey inferential design. The population of the study consisted of 3000 students who were selected through simple random sampling technique. The data for the study were collected using a researcher – developed questionnaire "The Student Perception of Deregulation Policy Questionnaire (SPODEPQ)". The data gathered were analysed using population t – test at 0.05 level of significance. The result of the study showed both positive and negative perception by students towards deregulation of education policy.

Some of the positive perceptions are:

- Deregulation of educational services will widen the scope of admission into the university since they will have ample opportunities of attending public or private universities of their choice.
- Ensuring of quality in standard and encouraged healthy competitions.
- Lessen low quality of facilities in public universities.

Their negative perceptions centred on:

- Production of low quality of graduates because of commercialization of grade and mass production of graduates in order to attract public patronage by private

universities managers. This portends doom for quality assurance.
- Brain – drain due to mass exodus of some academic staff with penchant for juicy pay or greener pasture.

The relevance of this study to the present stems from the fact that some of the variables discussed in the study tally's with those of the present study. On the other hand, there is a disparity or disconnect between the reviewed study and the present study on the ground that the reviewed study ignored state and private universities in it consideration. Also, the reviewed study has its focal point on students for the population of the study.

Ojong, Atsu, and Ettah (2009) carried out a study research on the topic "Towards ensuring quality graduates output from Nigerian Universities in a Deregulated Education System". The purpose of the study was to examine factors that ensure the production of qualitative graduates from Nigerian Universities. Five research questions and three hypotheses guided the study. Descriptive survey was the research design while the population of the study consisted of 400 respondents. Instrument for data collection was questionnaire. The major findings of the study were:
- To ensure the production of quality graduates output from Nigerian universities, there must be enough qualified lecturers as well as other supporting staff.
- There must be adequate infrastructure / facilities for effective teaching and learning.
- Admission process must be devoid of sharp practices, especially by private university managers, and should be strictly based on merit against other unethical practices. The National Universities Commission's regulation on admission should be adhered to.

When all these, and other points not included here are followed, then can the system be sure of turning out qualitative products or graduates that will stand the test of time. The nexus between the reviewed study and the present study lies on the fact that some of the variables treated are also major variables under examination in the present study. Furthermore, it provided insight into the reason behind poor graduate performance in some of their workplace. However, a noticeable short – coming in the reviewed work or study emanated from its – holistic approach to variables treated in the present study like calibre of students, quality of facilities, etc.

Achu (2010) undertook a study on the topic "University education in Nigeria, an examination of private participation and quality assurance". The purpose of the study was to investigate the role of private individuals in provision of educational services in Nigeria. Secondly to ascertain whether the standard of education provided by these private universities is better than those in public. Four research questions and two hypotheses were formulated to guide the study while the design adopted for carrying out the study was ex – post facto. The targeted population was both lecturers and students and the sample size was 300 respondents that were randomly selected through stratified sampling technique. The instrument used to elicit responses from the respondents was a structural questionnaire captioned, "university Education in Nigeria, an Examination of Private participation and Quality Assurance Questionnaire (ENEPPQAQ). Mean score was used to answer the research questions while the hypotheses were tested using t – test at 0.05 level of significance. The major findings of the study include:
- Private individual's participation in the provision of university education can enhance quality in the system due to improved facilities for teaching and learning.
- Guarantee qualitative calibre of products due to the absence of rampart strike as it is common with public universities and examination malpractice.
- Admission is not strictly based on merit in both public and private universities and often, some universities admit students more than their carrying capacity.

These findings are important to the present study because it touches on a number of variables under consideration by the present study such a quality of facilities, calibre of products (graduates) and admission criteria. However, the study did lack an in – depth comparism of the fact between public (state, federal) and private universities. This actually created a gap between it and the present study.

1.3 Statement of the Problem

The administration and provision of education in Nigeria has passed through many stages. Initially, it was in the hands of the missionaries without the colonial government showing interest. During this time, the standard of instruction and the quality of the products were adjudged to be alright. Later the colonial government showed interest and joined in the provision and management of educational

services. At this time, the management and provision of educational services became a joint venture between the government and the missionaries. The admission criteria and quality of products were seen to be alright and the products capable of defending their certificates.

After independence, the trend continued especially during the era of oil-boom when "money was not a problem but how to spend it." But after the civil war, in 1970, the military government decided to take over the provision and management of the education services from the missions. This was short lived as there arose public outcry about the fallen standard of education (dilapidated buildings, poor infrastructural provision, near lack of teaching and learning facilities, incessant strikes leading to the production of half-baked graduates).

With the return to democratic rule, the door of the provision and management of education was once again thrown open. This time around, the policy of deregulation was introduced. This cut across all levels of the education sector (the University inclusive). The worrisome and unanswered question that gave impetus to the choice of this study is whether deregulation as a policy is a magic wand that will turn around the misfortune of the Nigerian education system especially at the university level. Put in question form: Will admission criteria and quality of products if properly managed bring succour to the Nigerian Educational systems or universities?

1.4 Theoretical Framework

This study is anchored on the systems approach theory.

The systems approach theory was propounded by Von Bertalafly in 1972. The theory takes a holistic view of the entire organizational system and processes.

The principal teaching of the theory is that every organization is an embodiment of a whole containing sub-units that work harmoniously together in order to achieve organizational goals or objectives. Consequently, this interrelatedness calls for a closer synergy between every segments of the organization. Furthermore, the proponent of the theory is of the view that there must be a closer rapport between inputs and outputs of any organization.

The proponents went further to enunciate how the systems theory can be applied in the administration and management of the school system. Human and material resources must be harnessed efficaciously in order to achieve the aims and objectives of establishing the school system. All components of the school system must be in tandem with the workings of the system (rules and regulations). Applied to the university system, the National universities Commission, the Chancellor, Vice Chancellor, Deans, Heads of Departments as well as Heads of Units, lecturers and students must view themselves as working towards the attainment of the same goal.

The importance of this study to the present study therefore emanated from the understanding of the complex inter-relationship between the government, private individuals and corporate organizations, communities and the school system towards the attainment of quality in the university system.

1.5 Purpose of the Study

The general purpose of the study is to determine the impact of the deregulation of educational services on, admission criteria and quality of products in Nigerian universities. Specifically, the study sought to:

- Examine the impact of deregulation of provision of educational services on the admission criteria into public and private universities in Nigeria in line with quality assurance indicators.
- Ascertain the impact of deregulation of provision of educational services on the quality of products from public and private universities in Nigeria.

1.6 Research Questions

The following research question were stated to guide the study

How has the admission criteria into public and private universities in Nigeria as a means of maintaining quality assurance been affected by the deregulation of educational services

How has educational deregulation affected the products from public and private universities in Nigeria with regards to quality assurance policy?

1.7 Research Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance:

$H0_1$: There is no significant difference between the mean rating of academic administrators in public and private universities on the impact of deregulation of

provision of educational services on admission criteria.

$H0_2$: There is no significant difference between the mean ratings of academic administrators in public and private universities on the impact of deregulation of provision of educational services on quality of products.

2. Research Methodology

2. 1 Population of the study

The population of the study consists of 714 academic administrators in public and private Universities in the south-south geo-political zone of Nigeria. There are six federal, six states and seven private universities, in the zone.

2.2 Sample

The sample size is 714 academic administrators drawn from all the public and private universities in the study area.

3. Data Analysis

The data in both variables were analysed using t-test statistics (independent), at.05 significant level and 712 degrees of freedom.

Hypothesis 1: There is no significant difference between the mean ratings of academic administrators in public and private universities on the impact of deregulation of provision of educational services on admission criteria.

Hypothesis One

There is no significant difference between the mean ratings of academic administrators in public and private universities on the impact of deregulation of provision of educational services on admission criteria. To test this hypothesis, the academic administrators were grouped into public and private universities. The mean responses of the two categories were analyzed as shown in Table 1

Table One: Summary of t-test for Hypothesis One

S/N	Groups	N	Mean	SD	t-cal	Df	Sig.	Decision
1	Academic administrators in public universities	608	2.90	.27	12.32*	712	0.00	Rejected
2	Academic administrators in private universities	106	2.54	.29				

*Significance of groups at p<05

Table 1 presented the summary of t-test analysis on the mean ratings of academic administrators in public and private universities on the impact of deregulation of provision of educational services on admission criteria. The data revealed a probability value of 0.00 which is less than 0.05 at 712 degree of freedom, meaning that there is significant different in the responses of public and private academic administrators of universities. Therefore, hypothesis one was rejected, meaning that there is significant difference in the mean ratings of academic administrators in public and private universities on the impact of deregulation of provision of educational services on admission criteria.

Hypothesis Two

There is no significant difference between the mean ratings of academic administrators in public and private universities on the impact of deregulation of provision of educational services on quality of products. To test this hypothesis, the academic administrators were grouped into public and private universities. The mean responses of the two categories were analyzed as shown in Table 2

Table 2: Summary of t-test for Hypothesis one

S/N	Groups	N	Mean	SD	t-cal	df	Sig.	Decision
1	Academic administrators in public universities	608	2.72	.27	10.10*	712	0.00	Rejected
2	Academic administrators in private universities	106	3.14	.41				

*Significance of groups at p<05

Table 2 presented the summary of t-test analysis on the mean ratings of academic administrators in public and private universities on the impact of deregulation of provision of educational services on calibre of products from the Nigerian universities. The data reveals a probability value of 0.00 which is less than 0.05 at 712 degree of freedom, meaning that there is significant different in the responses of public and private academic administrators of universities on calibre of products from the Nigerian universities. Therefore, hypothesis one was rejected, meaning that there is a significant difference in the mean rating of academic administrators in public and private universities on the impact of deregulation of provision of educational services on calibre of products from the Nigerian universities.

4. Discussion of findings

Deregulation of educational services, admission criteria and quality of products in public and private universities in relation to quality assurance.

The result of the analysis in hypothesis one showed a probability value 0.00 which is less than 0.05 at 712 degree of freedom, meaning that there is significant difference in the responses of public and private academic administrators of universities on admission criteria . Therefore, hypothesis one was rejected, meaning that there is significant difference in the mean rating of academic administrators in public and private universities in deregulation of educational services on admission criteria. This finding is in consonance with Mbipom, Bassey and Archibong (2004), who carried out a study on the topic "Students Perception of Education Deregulation Policy in South – eastern Nigerian Federal Universities". The purpose of the study was aimed at investigating students' perception of education deregulation policy. Two hypotheses were formulated to guide the study while the design adopted to carry out the study was survey inferential design.The population of the study consisted of 3000 students who were selected through simple random sampling technique. The data for the study were collected using a researcher – developed questionnaire "The Student Perception of Deregulation Policy Questionnaire (SPODEPQ)". The data gathered were analysed using population t – test at 0.05 level of significance. The result of the study showed both positive and negative perception by students towards deregulation of education policy. Some of the positive perceptions are:

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The relevance of this study to the present stems from the fact that some of the variables discussed in the study tally's with those of the present study. On the other hand, there is a disparity or disconnect between the reviewed study and the present study on the ground that the reviewed study ignored state and private universities in it consideration. Also, the reviewed study has its focal point on students for the population of the study. . Ojong, Atsu, and Ettah (2009) carried out a study research on the topic "Towards ensuring quality graduates output from Nigerian Universities in a Deregulated Education System". The purpose of the study was to examine factors that ensure the production of qualitative graduates from Nigerian Universities.

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- Guarantee qualitative calibre of products due to the absence of rampart strike as it is common with public universities and examination malpractice.
- Admission is not strictly based on merit in both public and private universities and often, some universities admit students more than their carrying capacity.

These findings are important to the present study because it touches on a number of variables under consideration by the present study such a quality of facilities, calibre of products (graduates) and admission criteria. However, the study did lack an in – depth comparism of the fact between public (state, federal) and private universities. This actually created a gap between it and the present study.

5. Conclusion

Sequel to the findings of the study, the following conclusions was reached by the researcher that:

- There is a significant difference in the mean rating of academic administrators in public and private universities in deregulation of educational services on admission criteria.
- There is a significant difference between the mean ratings of academic administrators in public and private universities on the impact of deregulation of provision of educational service on quality of products from the Nigerian universities

6. Recommendations

Based on the findings of this study, the following recommendations were made:

- The National Universities Commission should ensure that private universities adhere strictly to the laid down admission policy.
- Quota system of admission should be discouraged or abolished. By so doing, the incidence of admitting candidates who should have no place in the university system will be minimised thereby paving way for the production of qualitative products who can compete favourably in the labour market in any part of the globe.

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Ethical Administrative Process and Malpractices in Public Examinations: A Study of the West African Examinations Council (2010 – 2020)

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Abstract. Possessing the West African Senior School Certificate (WASSCE) in the Anglophone West African countries has become the basis for securing admissions into higher institutions, employments and elective positions. Consequently, candidates who are desperate resort to examination malpractices to obtain it. The government and WAEC are therefore compelled to devise measures to guarantee integrity in the management of the examination process. Despite these measures, the integrity of the examination continued to be compromised in the last ten years. This study therefore, investigated the relationship between the administrative processes and the accompanying increase in the examination malpractice. Mixed method design was adopted for the study. The population was 144,070 with a sample size of 1,157 determined using Krejcie and Morgan (1970). Purposive and stratified sampling techniques were adopted in selecting the respondents with a response rate of 85%. Questionnaire and interview guide were used as data collection instruments. Descriptive statistics and content analysis were employed for the quantitative and qualitative data respectively. Findings showed that there was a significant relationship ($r = -0.684$; $p<0.05$) between the effectiveness of the pre-examination processes adopted by WAEC and the level of examination malpractice in the WASSCE, between the effectiveness of the processes employed during the conduct of the examination ($R^2 = 0.73$; $F = 117.64$; $t = 7.560$) and the level of examination malpractice and the effectiveness of the post-examination processes ($r = -0.652$; $p<0.05$) and the level of examination malpractice. The study concluded that though the pre and post-examination administrative processes adopted by WAEC were ethical enough and should have been effective in curbing examination malpractice, this has not really succeeded due to human factors. The study recommended that the recruitment policy for examination officials should be reviewed to give special consideration to integrity while the ad hoc staff should be adequately remunerated.

Keywords: Ethical processes, Examination malpractice, Integrity, Compromised, Administrative.

1. Introduction

In the Anglophone West African sub-region, and particularly in Nigeria, there is a strong reliance on the WASSCE certificate issued by the West African Examinations Council (WAEC) as the basis of securing admission into higher institutions, employments and elective positions in government. In view of the strategic importance of this examination, candidates have become desperate to obtain it by all means possible. The desperation of candidates to obtain the WASSCE certificate at all costs has led to the incidence of examination malpractices which have witnessed an alarming increase over the last ten years in spite of the seeming water-tight measures which the federal government of Nigeria and WAEC have been compelled to put in place to combat the menace. The situation therefore calls for closer examination to find out how ethical the administrative processes have been in curbing examination malpractice.

1.1 Statement of the Problem

In view of the strategic importance of WASSCE certificate, the Nigerian government as well as WAEC has devised several measures to ensure that the process leading to the conduct of the examination is ethical and uncompromised. However, in spite of these measures and ethical administrative process, the integrity of the examination appears to be

compromised. In the last ten years, the incidence of examination malpractices has continued to give cause for concern having moved from single digit to double digits.

This study, therefore, investigated the ethical administrative process adopted by WAEC and the increase in examination malpractice in the period with a view to ascertaining the effectiveness of the adopted ethical processes in curbing malpractices in the WASSCE.

1.2 Objectives of the Study

The main objectives of the study are to:

- investigate how effective the pre-examination processes are in curbing examination malpractice and ensuring the integrity of the WASSCE examination;
- find out to what extent the examination administrative processes employed by WAEC during the conduct of WASSCE are effective in putting examination malpractice in check;
- investigate the effectiveness of the post-examination administrative processes in operation in guaranteeing the integrity of the WASSCE examination;

2. Conceptual Clarifications

2.1. Ethics

Ethics which is also referred to as moral philosophy is the discipline that is concerned with what is morally good and bad or morally right and wrong. The term is derived from the Greek word "ethos", which means "way of living" in a particular community. Ethics is therefore concerned with human conduct or, more specifically, the behaviour of individuals in society. Ethics consists of the standards of behavior which our society accepts as right and wrong. Ethics reflect beliefs about what is right, what is wrong, what is just, what is unjust, what is good, and what is bad in terms of human behavior. They therefore serve as a guide on how we should behave toward each other, understand and fulfill our obligations to society, and live our lives. Ethics are the principles that guide us to make a positive impact through our decisions and actions.

Ethics therefore is about the choices we make in our daily life and in our interaction with our fellow men and the environment in which we live. These choices have consequences, both for ourselves and others. And this is where ethics and value interact. Our values are what seems desirable to us, what we consider as important to us, what we esteem and seek to achieve. It is what is of value to us that we put into practice through our daily actions.

2.2 Ethical Standards

According to Nwaodike, Owolabi and Oni (2020) ethical standards are "principles that inspire greater values of trust, fairness and kindness in a workplace" and such principles vary according to the organization in question. The purpose in every situation, however, is to promote the cherished values and aspirations of the organization with a view to engendering goodwill through ethical behavior. Such principles are entrenched in the organization's code of conduct which designs the pattern of ethical conduct expected of the employees. When ethical principles are brought to play in the management of an examination, it is then referred to as examination ethics. According to Examination Ethics Project (2001), examination ethics are "the moral principles laid down for the conduct of an examination or the moral correctness of an examination". Animba (2003) also states that examination ethics should be viewed as the correct conduct and behaviour that underpin an examination system so as to give the resulting certification the required authenticity.

2.3 The Importance of Ethical Behaviour

Ethics is a guide that helps us to improve our life. Since our actions and decisions are influenced by our core values, it could therefore be said that what we become in life is the sum total of all the decisions we make.

McCartney and Parent (2015) state that when we enrich our lives by being ethical in our dealings, we also enrich the lives of those around us and make the society a better and secure place because in our decision-making, we take into consideration the effect of our decision/action on the people around us.

Ethics also helps to create credibility. Any organization which is believed to have high moral standards will be treated with respect in the society. People will willingly wish to work for or associate with such an organization. Such an organization will in the long run and due to its goodwill become profitable. Similarly, in the process of staff recruitment organizations will hire only people of proven integrity.

2.4 Approaches to Ethical Theories

In order to guide us in making ethical decisions, philosophers and some religious teachers have

devised three major approaches which some thinkers also refer to as ethical decision-making frameworks. The three approaches are Utilitarian Ethical Approach (outcome/consequence based), Deontological Ethical Approach (duty based) and Virtue Ethical Approach (virtue based).

Utilitarian Ethical Approach has as its proponents the Greek philosopher Epicurus of Samos (341-270 BCE), the 18th Century British philosophers David Hume (1711-1776), Jeremy Bentham (1748-1832) and John Stuart Mill (1806-1873). They argued that the best life is one that produces the least pain and distress. As such, they advised that we should weigh the different amounts of good and bad that will be produced by our action, noting that the best action will be the one that provides the most good or causes the least harm.

The philosopher Immanuel Kant (1724-1804) is the proponent of the Deontological or duty-based Ethical Approach. Kant believed that doing the right thing is predicated on having the proper intention for carrying out the action. The action is taken because we owe it as a duty to do it. A behavior is believed to be right if it is in line of the duty a person owes to others in the society (Chukwuma, Atianashie, and Yeboah, 2021).

The proponents of the Virtue Ethical Approach (virtue based) are the Greek philosopher Aristotle (384-322 BCE) and Alasdair MacIntyre (1929). The questions often answered in this approach are what virtues should I cultivate and what vices should I keep away from in order to be the type of person I desire to be? (Prabhakar. 2019). To the proponents of this approach a behavior is deemed ethical if it is what a virtuous person would do in a similar situation.

It must be noted however that none of the three approaches is perfect. That is we do not use one approach exclusive of others. According to Dobrin (2007), a psychologist, in making ethical decisions, we have to take into consideration our integrity as a person, the possible effect that our action is likely to produce on the target/victim as well as the level of our adherence to the principles we hold dear in our life.

2.5 Integrity: A Conceptual Examination

Etymologically the term integrity originates from the Latin adjective integer which means the state or quality of being complete or whole. Monga (2016) says that integrity is a personality trait that has to do with perceived consistency of one's actions, values, methods, measures, principles, expectations and outcome.

Integrity lays emphasize on the "wholeness" or "intactness" of a moral stance or attitude. It involves what it takes for a person to be whole and complete. And Jensen says that a person is whole and complete when he makes it a duty to honour his word. Integrity, therefore, is the link between our words and action.

To ensure the integrity of the public officer, therefore, there are provisions as to what the public officer can and should not be seen doing. These are spelt out in the Code of Conduct for Public Officers contained in Part I of the Fifth Schedule to the 1999 Constitution. The Code is aimed at establishing and maintaining in public officers the highest standards of public morality and accountability while carrying out their duties.

3. Examination Malpractice

The word 'malpractice' is coined from two words – 'mal' and 'practice'. 'Mal' as a pre-fix, connotes something bad or something that is not correct. When combined with the word 'practice' to form the word 'malpractice', it means a practice that is not properly done. The Oxford Advanced Learner's Dictionary of Current English (8th Edition) defines the word as "careless, wrong or illegal behavior while in a professional job". A malpractice in examination is therefore a wrong and illegal practice by anyone connected in one way or the other with the conduct or taking of an examination. Osuji (2020) describe it as deliberate wrong doing designed to give an unfair advantage to an examinee by going contrary to the rules, regulations and guidelines guiding the conduct of the examination. In the opinion of Onuka and Dorowoju (2013), it is any dishonest or unauthorized action or deed committed by an examinee on his own or in collaboration with others such as fellow students, guardians, parent, teachers, examination officials, supervisors, invigilators, security officers or anybody or group before, during or after examination in order to obtain undeserved marks or grades. WAEC, as an examination body, defines examination malpractice as "any irregular behavior exhibited by candidates or anybody charged with the responsibility of conducting examination in or outside the examination hall, before, during or after such examination (Animasahun and Ogunniran, 2014). In the eye of the law, as contained in the Examination Malpractice Act, Cap E15 Laws of the Federation of Nigeria 2004, examination malpractice

is any act of omission or commission by a person who in anticipation of, before during or after any examination fraudulently secure any unfair advantage for himself or any other person in such a manner that contravenes the rules and regulations to the extent of undermining the validity, reliability, authenticity of the certificates issued.

3.1 Forms of Examination Malpractice

As information and communication technology continues to develop, candidates and their collaborators also develop new ways and daring strategies to perpetrate examination malpractice. Citing Ojerinde (2013), Adeniran, Bakare and Akinpade (2020) established three phases in the process of examination malpractice.

The malpractices associated with the first phase (Pre-examination) include over-registration of candidates by the school authority for pecuniary gains thereby creating avoidable strain on the available infrastructures. There is also the incidence of registering non-school. This happens where students troop to register in remote schools where the examination bodies may not have adequate monitoring and supervision. Closely related to this is the registration of "mercenary" who work as agents to register and write examinations on behalf of their principals. School authorities also collect from candidates "logistic fee". This is the fund collected from candidates for use in lobbying/bribing supervisors/invigilators to subvert the rules guiding the conduct of the examination.

The second phase is during examination. The forms of examination malpractice that occur during examination as identified by Anyawu and Onwuakpa (2018) include impersonation, "giraffing", dubbing and importation of foreign materials.

The third phase (post-examination) involves the malpractices perpetrated after the writing of the examination. Here, we have candidate's scripts being swapped at the submission stage with another one already prepared from outside the examination hall. Adeniran, Bakare and Akinpade (2020) refer to this as "slot in" or substitution. Another form is where the staff of the examination bodies that work in the computer unit change candidate's scores in the database.

3.2 Factors Responsible for Examination Malpractice

Asuru (2009) strongly believes that examination malpractices are essentially system-generated. In his view, Nigerian students "are not congenital cheats, but are merely responding to some fundamental disarticulation in the system". He says that the situation has degenerated so badly because of our warped societal values. Our time-honored values of honesty integrity, perseverance and respect for dignity of labour have been jettisoned in favour of the Machiavellian idea that it is the end that justifies the means.

This situation has given rise to poor teaching and learning in our schools coupled with the appalling lack appropriate facilities. Accordingly, students are inadequately prepared for what lies ahead for them. According to Osarenren (2022), "the attitude of many students to school and schooling has increasingly become a source of concern to stakeholders in the education sector". She goes further, affirming that "there is direct relationship between students' values orientation and success orientation. The students' perception of success goes a long way in determining how he or she approaches and prepares for success.

3.3 Effects of Examination Malpractice

There is no gainsaying the fact that examination malpractice has a very negative effect on the individual involved, his institution, his community as well as the nation at large. When is caught cheating, his results are usually cancelled and all his efforts come to naught. If he is prosecuted and convicted, the shame he brings upon himself and his family can only be imagined.

When a candidate successfully perpetrated the crime of examination malpractice and thereafter uses the unmerited certificate to secure employment, Onuka and Durowoju (2013) strongly believe that there would surely be a failure in his job performance because such a person will not be able to defend the certificate he obtains through fraud. His professional failure will also affect his organizational productivity negatively.

Osuji (2020) also opined that a country in which her students are noted for examination malpractice will no doubt lose its international credibility as any certificate emanating from such a country will be viewed with suspicion and doubt. Furthermore, in the opinion of Anzene (2014), examination malpractice has the effect of re-ordering the value orientation of the society. This is because there will be candidates with distinctions in examinations but such candidates will lack the quality of knowledge required in his purported area of specialization.

4. Theoretical Framework: The Aristotelian Theory of Virtue Ethics

Aristotle was a Greek philosopher who lived around 350 B.C.E. He was very practical in his approach to the study of ethics as he based his ideas on the behavior of people and how such behavior impacted on their subsequent actions. Aristotle is of the assumption that human beings think and behave with a view to achieving happiness (Eudaimonia). To him, virtue which can be acquired through practice, is the 'mean' between excess and deficiency, two undesirable extremes. It is therefore a character-based approach to morality which teaches that an action is only right if it is an action that a virtuous person would carry out under similar circumstances. Boylan (2017) refers to this as "ethics of character". According to Mitchell (2018), moral character is formed by one's actions. He opines that character cannot be separated from the person; a man of good character is he whose habits, actions, and emotional responses all are united and directed toward the moral and the good. As such, a man's public and private actions cannot be separated one from the other because both sets of actions affect his character.

Julia Annas (2018) in her analysis, sees virtue as a disposition to act "for reasons", a disposition to do the right thing for the right reason and in the most appropriate way. As such, it calls for the individual's affective and intellectual reasoning. That is, the individual, at every stage should use his mind to think about his action based on the environment in which he finds himself and to try to achieve an understanding of it in achieving his goal of happiness (Eudaimonia or flourishing as Annas prefers to call it). Virtues therefore, are character traits that enable us to pursue the ideals we have set for ourselves such as honesty, integrity, compassion, courage, fairness, fidelity, self-control as well as prudence. These virtues are personal habits which are developed by the individual through learning and practice within and by his community (environment).

5. Methodology

The research design adopted was a combination of both quantitative and qualitative data. The sample size of the study was 1,157 consisting of examination officials of WAEC selected through stratified and simple random sampling technique. The four categories of WAEC personnel were the staff in the Test Development Division (TDD) and the Test Administration Division (TAD), the Printing and Warehousing Department, the Invigilators/Supervisors and the Examiners at the Marking Centres. A structured Questionnaire was the major instrument of data collection complemented by interview guide. The response rate was 85%. Reliability test of the instrument yielded Cronbach's alpha coefficients for the construct ranging from 0.70 to 0.90. Data collected were tabulated and analyzed using descriptive statistics and content analysis.

6. Data Presentation, Analysis and Interpretation of Research Questions

Research Question 1: How effective are the pre-examination processes in curbing examination malpractice and ensuring the integrity of the WASSCE examination?

Table 8.1: Effectiveness of the pre-examination processes in curbing examination malpractice and ensuring the integrity of the WASSCE examination

S/N	Statement	SA	AG	UD	DG	SD	Mean	SD
1.	The scope of the syllabus for most of the subjects is too large to be adequately covered in a 3-year course of study.	252(28.0)	556(56.0)	39(4.0)	98(10.0)	39(4.0)	4.3	1.39
2.	In the course of setting examination questions the Examination Officers take for granted that candidates have covered every part of the syllabus.	315(32.0)	590(60.0)	79(8.0)	0(0.0)	0(0.0)	4.9	1.08
3.	WAEC maintains a well stuffed question bank from where questions are selected at random for every diet.	178(18.0)	590(60.0)	216(22.0)	0(0.0)	0(0.0)	3.8	1.44
4.	The final vetting and selection of questions is done by examination officers quite distinct from those who set the questions.	295(30.0)	630(64.0)	39(4.0)	0(0.0)	20(2.0)	3.5	1.29
5.	The Printers engaged for the production of the questions are closely monitored by WAEC officials to ensure a leakage-free exercise.	787(80.0)	197(20.0)	0(0.0)	0(0.0)	0(0.0)	3.2	1.39
6.	All the staff of WAEC printing Houses, not just their production crew, are made to take the oath of secrecy prior to commencement of the production of the question papers.	590(60.0)	394(40.0)	0(0.0)	0(0.0)	0(0.0)	3.70	1.46

7.	Live question papers are stored in fool-proof strong rooms with restricted access prior to dispatch to examination centres.	590(60.0)	296(30.0)	98(10.0)	0(0.0)	0(0.0)	3.76	1.30
8.	Question papers are counted and packed by the printers based on the number of entries for each centre to prevent over or under supply of question papers.	374(38.0)	492(50.0)	118(12.0)	0(0.0)	0(0.0)	4.08	1.03
9.	Packaged question papers are dispatched to designated Examination centre strong rooms using police escort.	610(62.0)	197(20.0)	0(0.0)	0(0.0)	177(18.0)	4.4	1.22
Average Weighted Mean							4.38	0.78

Source: Field Survey, 2021/2022

Key: [SA] = Strongly Agree, [A] = Agree, [UN] = Undecided, [D] = Disagree, [SD] Strongly Disagree

*** Decision Rule: If mean is less or equal to 1.49 = Undecided, 1.5 to 2.49 = Disagree, 2.5 to 3.49 = Strongly Disagree, 3.5 to 4.49 = Agree, 4.5 to 5 = Strongly Agree

Table 8.1 shows the effectiveness of the pre-examination processes in curbing examination malpractice and ensuring the integrity of the WASSCE examination.

The data in Item 1 in Table 8.1 shows that 252 respondents representing 28% strongly agreed that the scope of the syllabus for most of the subjects is too large to be adequately covered in a 3-year course of study. 556 respondents representing 56% agreed that the scope of the syllabus for most of the subjects is too large to be adequately covered in a 3-year course of study. 39 respondents, that is, 4% were undecided on this statement. 98 respondents representing 10% disagreed while another 39 respondents representing 4% strongly disagreed with the statement. Thus, majority of the respondents agreed that the scope of the syllabus for most of the subjects is too large to be adequately covered in a 3-year course of study.

The data in Item 2 in Table 8.1 shows that 315 respondents representing 32% strongly agreed that in the course of setting examination questions the Examination Officers take for granted that candidates have covered every part of the syllabus. 590 respondents representing 60% agreed that in the course of setting examination questions the Examination Officers take for granted that candidates have covered every part of the syllabus. 79 respondents, that is, 8% were undecided on this statement. No respondent disagreed and none strongly disagreed with the statement. Thus, majority of the respondents agreed that in the course of setting examination questions the Examination Officers take for granted that candidates have covered every part of the syllabus.

The data in Item 3 in Table 8.1 shows that 178 respondents representing 18% strongly agreed that WAEC maintains a well stuffed question bank from where questions are selected at random for every diet. 590 respondents representing 60% agreed that WAEC maintains a well stuffed question bank from where questions are selected at random for every diet. 216 respondents, that is, 22% were undecided on this statement. No respondent disagreed and none strongly disagreed with the statement. Thus, majority of the respondents agreed that WAEC maintains a well stuffed question bank from where questions are selected at random for every diet.

The data in Item 4 in Table 8.1 shows that 295 respondents representing 18% strongly agreed that the final vetting and selection of questions is done by Examination Officers quite distinct from those who set the questions. 630 respondents representing 64% agreed with this statement. 39 of the respondents, that is, 4% were undecided on this statement. None of the respondents disagreed with this statement while only 20 of them (2%) strongly disagreed with the statement. Thus, majority of the respondents agreed that the final vetting and selection of questions is done by Examination Officers quite distinct from those who set the questions.

The data in Item 5 in Table 8.1 shows that 787 respondents representing 80% strongly agreed that the Printers engaged for the production of the questions are closely monitored by WAEC officials to ensure a leakage-free exercise. 197 respondents representing 20% agreed that the Printers engaged for the production of the questions are closely monitored by WAEC officials to ensure a leakage-free exercise. None of the respondents was undecided on this statement. No one disagreed and none strongly disagreed with the statement. Thus, a good majority of the respondents strongly agreed that the Printers engaged for the production of the questions are closely monitored by WAEC officials to ensure a leakage-free exercise.

The data in Item 6 in Table 8.1 shows that 590 respondents representing 60% strongly agreed that all the staff of WAEC printing Houses, not just their production crew, are made to take the oath of secrecy prior to commencement of the production of the question papers. 394 respondents representing 40% agreed that all the staff of WAEC printing Houses,

not just their production crew, are made to take the oath of secrecy prior to commencement of the production of the question papers. None of the respondents was undecided on this statement. No one disagreed and none strongly disagreed with the statement. Thus, a good majority of the respondents strongly agreed that all the staff of WAEC printing Houses, not just their production crew, are made to take the oath of secrecy prior to commencement of the production of the question papers.

The data in Item 7 in Table 8.1 shows that 590 respondents representing 60% strongly agreed that live question papers are stored in fool-proof strong rooms with restricted access prior to dispatch to examination centres. 296 respondents representing 30% agreed that live question papers are stored in fool-proof strong rooms with restricted access prior to dispatch to examination centres. 98 respondents, that is, 10% were undecided on this statement. No respondent disagreed and none strongly disagreed with the statement. Thus, majority of the respondents agreed that live question papers are stored in fool-proof strong rooms with restricted access prior to dispatch to examination centres.

The data in Item 8 in Table 8.1 shows that 374 respondents representing 38% strongly agreed that question papers are counted and packed by the printers based on the number of entries for each centre to prevent over or under supply of question papers. 492 respondents representing 50% agreed that question papers are counted and packed by the printers based on the number of entries for each centre to prevent over or under supply of question papers. 118 respondents, that is, 12% were undecided on this statement. No respondent disagreed and none strongly disagreed with the statement. Thus, majority of the respondents agreed that question papers are counted and packed by the printers based on the number of entries for each centre to prevent over or under supply of question papers.

The data in Item 9 in Table 8.1 shows that 610 respondents representing 62% strongly agreed that packaged question papers are dispatched to designated Examination centre strong rooms using police escort. 197 respondents representing 20% agreed that packaged question papers are dispatched to designated Examination centre strong rooms using police escort. No respondent was undecided on this statement and none disagreed. However, 177 respondents, that is, 18% strongly disagreed with this statement. Thus, majority of the respondents agreed that packaged question papers are dispatched to designated Examination centre strong rooms using police escort.

In line with the average weighted mean of 4.38, however, it can be generally concluded that the pre-examination processes are effective to curb examination malpractice and ensure the integrity of the WASSCE examination. In the course of these processes, setting examination questions which the examination officers take for granted that candidates have covered every part of the syllabus appears to be most effective factor with the mean value of 4.9.

Research Question 2: To what extent are the examination administrative processes employed by WAEC during the conduct of WASSCE effective in putting examination malpractice in check?

Table 8.2: The extent to which the examination administrative processes employed by WAEC during the conduct of WASSCE are effective in putting examination malpractice in check.

S/N	Statement	SA	AG	UD	DG	SD	Mean	SD
1.	Examinations are held only in WAEC accredited centres nationwide.	295(30.0)	689(70.0)	0(0.0)	0(0.0)	0(0.0)	4.08	1.35
2.	Only tested and experienced invigilators are engaged to supervise the conduct of the examinations.	394(40.0)	531(54.0)	39(4.0)	20(2.0)	0(0.0)	4.28	1.34
3.	Accreditation and bodily search of candidates are done thoroughly to prevent impersonation and the importation of foreign materials into the examination halls.	335(34.0)	610(62.0)	39(4.0)	0(0.0)	0(0.0)	4.37	1.42
4.	Sitting arrangements in the examination halls are done to avoid over-crowding with a view to preventing “giraffing” by candidates and ensure maximum ventilation and comfort.	374(38.0)	610(62.0)	0(0.0)	0(0.0)	0(0.0)	4.01	1.03
5.	Invigilation regulations including time-keeping are strictly enforced during the conduct of the examinations.	394(40.0)	590(60.0)	0(0.0)	0(0.0)	0(0.0)	3.76	1.30
6.	The collection, collation and dispatch of scripts to designated zonal offices are carried out by the examination officers with utmost care to ensure tamper-proof exercise.	590(60.0)	394(40.0)	0(0.0)	0(0.0)	0(0.0)	4.08	1.03
Average Weighted Mean							**4.03**	**1.38**

Source: Field Survey, 2021/2022

Key: [SA] = Strongly Agree, [A] = Agree, [UN] = Undecided, [D] = Disagree, [SD] Strongly Disagree

*** Decision Rule: If mean is less or equal to 1.49 = Undecided, 1.5 to 2.49 = Disagree, 2.5 to 3.49 = Strongly Disagree, 3.5 to 4.49 = Agree, 4.5 to 5 = Strongly Agree

Table 8.2 shows the extent to which the examination administrative processes employed by WAEC during the conduct of WASSCE are effective in putting examination malpractice in check and ensuring the integrity of the WASSCE examination.

The data in Item 1 in Table 8.2 shows that 295 respondents representing 30% strongly agreed that examinations are held only in WAEC accredited centres nationwide. 689 respondents representing 70% agreed that examinations are held only in WAEC accredited centres nationwide. None of the respondents was undecided on this statement. No one disagreed and none strongly disagreed with the statement. Thus, a good majority of the respondents agreed that examinations are held only in WAEC accredited centres nationwide.

The data in Item 2 in Table 8.2 shows that 394 respondents representing 40% strongly agreed that only tested and experienced invigilators are engaged to supervise the conduct of the examinations. 631 respondents representing 54% agreed with this statement. 39 of the respondents, that is, 4% were undecided on this statement. 20 of them (2%) disagreed with this statement while none of the respondents strongly disagreed with the statement. Thus, majority of the respondents agreed that only tested and experienced invigilators are engaged to supervise the conduct of the examinations.

The data in Item 3 in Table 8.2 shows that 335 respondents representing 34% strongly agreed that accreditation and bodily search of candidates are done thoroughly to prevent impersonation and the importation of foreign materials into the examination halls. 610 respondents representing 62% agreed that accreditation and bodily search of candidates are done thoroughly to prevent impersonation and the importation of foreign materials into the examination halls. 39 respondents, that is, 4% were undecided on this statement. No respondent disagreed and none strongly disagreed with the statement. Thus, majority of the respondents agreed that accreditation and bodily search of candidates are done thoroughly to prevent impersonation and the importation of foreign materials into the examination halls.

The data in Item 4 in Table 8.2 shows that 374 respondents representing 38% strongly agreed that sitting arrangements in the examination halls are done to avoid over-crowding with a view to preventing "giraffing" by candidates and ensure maximum ventilation and comfort. 610 respondents representing 62% agreed that sitting arrangements in the examination halls are done to avoid over-crowding with a view to preventing "giraffing" by candidates and ensure maximum ventilation and comfort. None of the respondents was undecided on this statement. No one disagreed and none strongly disagreed with the statement. Thus, majority of the respondents agreed that sitting arrangements in the examination halls are done to avoid over-crowding with a view to preventing "giraffing" by candidates and ensure maximum ventilation and comfort.

The data in Item 5 in Table 8.2 shows that 394 respondents representing 40% strongly agreed that invigilation regulations including time-keeping are strictly enforced during the conduct of the examinations. 590 respondents representing 60% agreed that invigilation regulations including time-keeping are strictly enforced during the conduct of the examinations. None of the respondents was undecided on this statement. No one disagreed and none strongly disagreed with the statement. Thus, majority of the respondents agreed that invigilation regulations including time-keeping are strictly enforced during the conduct of the examinations.

The data in Item 6 in Table 8.2 shows that 590 respondents representing 60% strongly agreed that the collection, collation and dispatch of scripts to designated zonal offices are carried out by the Examination Officers with utmost care to ensure tamper-proof exercise. 394 respondents representing 40% agreed that the collection, collation and dispatch of scripts to designated zonal offices are carried out by the Examination Officers with utmost care to ensure tamper-proof exercise. None of the respondents was undecided on this statement. No one disagreed and none strongly disagreed with the statement. Thus, majority of the respondents strongly agreed that the collection, collation and dispatch of scripts to designated zonal offices are carried out by the Examination Officers with utmost care to ensure tamper-proof exercise.

Meanwhile, going by the average mean of 4.03, there is a high extent of examination administrative processes in putting examination malpractice in check and ensuring the integrity of the WASSCE examination. Accreditation and bodily search of candidates (X=4.37) which were done thoroughly to prevent impersonation and the importation of foreign materials into the examination halls is the most effective measure put in place to check malpractice and ensure the integrity of the examination.

Research Question 3: How effective are the post-examination administrative processes in guaranteeing the integrity of the WASSCE examination?

Table 8.3: The effectiveness of the post-examination administrative processes in guaranteeing the integrity of the WASSCE examination.

S/N	Statement	SA	AG	UD	DG	SD	Mean	SD
1.	Examiners are appointed to mark the scripts based on their experience and subject specialty.	689(70.0)	295(30.0)	0(0.0)	0(0.0)	0(0.0)	4.5	0.8
2.	Scripts are not marked in the particular zone where the examination is conducted; they are always shuffled to avoid complicity.	512(52.0)	354(36.0)	59(6.0)	20(2.0)	39(4.0)	4.3	0.7
3.	There is a coordination exercise for Examiners prior to the marking exercise during which dummy scripts are used to test the marking schemes.	394(40.0)	590(60.0)	0(0.0)	0(0.0)	0(0.0)	4.3	0.8
4.	Conference marking allows for proper supervision of examiners by the chief examiners and interaction among the examiners in case of problems encountered during the marking exercise.	590(60.0)	237(24.0)	157(16.0)	0(0.0)	0(0.0)	4.4	0.8
5.	The use of checkers ensures that examiners are up and doing in their work and errors of additions are prevented.	236(24.0)	689(70.0)	59(6.0)	0(0.0)	0(0.0)	4.2	0.9
6.	Results are collated with the aid of computers to avoid errors and mix-ups.	295(30.0)	630(64.0)	59(6.0)	0(0.0)	0(0.0)	3.9	1.0
7.	The decision of WAEC to release WASSCE results online within 60 days of conducting the examination is a welcome development as it prevents any form of manipulation of results.	276 (28.0)	590 (60.0)	118 (12.0)	0 (0.0)	0 (0.0)	4.1	0.8
8.	WASSCE certificates are now issued with the passport photograph of the candidate embossed thereon to prevent impersonation.	866 (88.0)	98 (10.0)	20 (2.0)	0 (0.0)	0 (0.0)	4.4	1.0
Average Weighted Mean							4.2	0.8

Source: Field Survey, 2022

Key: [SA] = Strongly Agree, [A] = Agree, [UN] = Undecided, [D] = Disagree, [SD] Strongly Disagree

*** Decision Rule: If mean is less or equal to 1.49 = Undecided, 1.5 to 2.49 = Disagree, 2.5 to 3.49 = Strongly Disagree, 3.5 to 4.49 = Agree, 4.5 to 5 = Strongly Agree

Table 8.3 shows the effectiveness of the post-examination administrative processes in guaranteeing the integrity of the WASSCE examination.

The data in Item 1 in Table 8.3 shows that 689 respondents representing 70% strongly agreed that Examiners are appointed to mark the scripts based on their experience and subject specialty. 295 respondents representing 30% agreed that Examiners are appointed to mark the scripts based on their experience and subject specialty. None of the respondents was undecided on this statement. No one disagreed and none strongly disagreed with the statement. Thus, a good majority of the respondents strongly agreed that Examiners are appointed to mark the scripts based on their experience and subject specialty.

The data in Item 2 in Table 8.3 shows that 512 respondents representing 52% strongly agreed that scripts are not marked in the particular zone where the examination is conducted; they are always shuffled to avoid complicity. 354 respondents representing 36% agreed that scripts are not marked in the particular zone where the examination is conducted; they are always shuffled to avoid complicity. 59 respondents, that is, 6% were undecided on this statement. 20 respondents representing 2% disagreed while another 39 respondents representing 4% strongly disagreed with the statement. Thus, majority of the respondents strongly agreed that scripts are not marked in the particular zone where the examination is conducted; they are always shuffled to avoid complicity.

The data in Item 3 in Table 8.3 shows that 394 respondents representing 40% strongly agreed that there is a coordination exercise for Examiners prior to the marking exercise during which dummy scripts are used to test the marking schemes. 590 respondents representing 60% agreed that there is a coordination exercise for Examiners prior to the marking exercise during which dummy scripts are used to test the marking schemes. None of the respondents was undecided on this statement. No one disagreed and none strongly disagreed with the

statement. Thus, majority of the respondents strongly agreed that there is a coordination exercise for Examiners prior to the marking exercise during which dummy scripts are used to test the marking schemes.

The data in Item 4 in Table 8.3 shows that 590 respondents representing 60% strongly agreed that conference marking allows for proper supervision of examiners by the chief examiners and interaction among the examiners in case of problems encountered during the marking exercise. 237 respondents representing 24% agreed that conference marking allows for proper supervision of examiners by the chief examiners and interaction among the examiners in case of problems encountered during the marking exercise. 157 respondents, that is, 16% were undecided on this statement. No respondent disagreed and none strongly disagreed with the statement. Thus, majority of the respondents agreed that conference marking allows for proper supervision of examiners by the chief examiners and interaction among the examiners in case of problems encountered during the marking exercise.

The data in Item 5 in Table 8.3 shows that 236 respondents representing 24% strongly agreed that the use of checkers ensures that examiners are up and doing in their work and errors of additions are prevented. 689 respondents representing 70% agreed that the use of checkers ensures that examiners are up and doing in their work and errors of additions are prevented. 59 respondents, that is, 6% were undecided on this statement. No respondent disagreed and none strongly disagreed with the statement. Thus, a good majority of the respondents agreed that the use of checkers ensures that examiners are up and doing in their work and errors of additions are prevented.

The data in Item 6 in Table 8.3 shows that 295 respondents representing 30% strongly agreed that results are collated with the aid of computers to avoid errors and mix-up. 630 respondents representing 64% agreed that results are collated with the aid of computers to avoid errors and mix-up. 59 respondents, that is, 6% were undecided on this statement. No respondent disagreed and none strongly disagreed with the statement. Thus, majority of the respondents agreed that results are collated with the aid of computers to avoid errors and mix-up.

The data in Item 7 in Table 8.3 shows that 276 respondents representing 28% strongly agreed that the decision of WAEC to release WASSCE results online within 60 days of conducting the examination is a welcome development as it prevents any form of manipulation of results. 590 respondents representing 60% agreed that the decision of WAEC to release WASSCE results online within 60 days of conducting the examination is a welcome development as it prevents any form of manipulation of results. 118 respondents, that is, 12% were undecided on this statement. No respondent disagreed and none strongly disagreed with the statement. Thus, majority of the respondents agreed that the decision of WAEC to release WASSCE results online within 60 days of conducting the examination is a welcome development as it prevents any form of manipulation of results.

The data in Item 8 in Table 8.3 shows that 866 respondents representing 88% strongly agreed that WASSCE certificates are now issued with the passport photograph of the candidate embossed thereon to prevent impersonation. 98 respondents representing 10% agreed that WASSCE certificates are now issued with the passport photograph of the candidate embossed thereon to prevent impersonation. 20 respondents, that is, 2% were undecided on this statement. No respondent disagreed and none strongly disagreed with the statement. Thus, a good majority of the respondents strongly agreed that WASSCE certificates are now issued with the passport photograph of the candidate embossed thereon to prevent impersonation.

Going by the average weighted mean of 4.2 it can be generally concluded that the post-examination administrative processes put in place by WAEC are effective in guaranteeing the integrity of the WASSCE examination. Furthermore, with the highest mean score of 4.5, appointing examiners to mark the scripts based on their experience and subject specialty happens to be the most effective means than other variables in the table.

7. Findings

Objective One: Investigate how effective the pre-examination processes are in curbing examination malpractice and ensuring the integrity of the WASSCE examination.

Correlation analysis of the tested hypothesis revealed a significant relationship *($r = -0.684; p<0.05$)* between the two variables such that an effective pre-examination process will reduce the level of examination malpractice. The study revealed that though the pre-examination administrative process appears to be fool-proof, the situation on ground points to the contrary. There are cases where examination officials are involved in leaking

questions by memorizing same and coming out of the press room to write out the memorized questions for eventual sale to these desperate candidates or their collaborators.

Objective Two: Find out to what extent the examination administrative processes employed by WAEC during the conduct of WASSCE are effective in putting examination malpractice in check.

Using regression analysis, it was found that there was a significant relationship *($R^2 = 0.73$; $F = 117.64$; $t = 7.560$)* between the effectiveness of the examination administrative processes employed by WAEC during the conduct of the WASSCE and malpractices in the examination. The study found that some of these WAEC officials do not live up to expectation as there were cases of Supervisors who, with the intent to make money illegally, would lobby to be posted to "juicy" examination centres where the authorities of these centres give them "logistic fee" for them to turn the blind eye to malpractices being perpetrated at such centres.

Objective Three: Investigate the effectiveness of the post-examination administrative processes in operation in guaranteeing the integrity of the WASSCE examination.

Correlation analysis also revealed a significant relationship *($r = -0.652$; $p<0.05$)* showing that an effective post-examination administrative process will reduce the level of examination malpractice recorded in the WASSCE. However, the study identified some unethical practices on the part of the Examiners. There were some of them who, in order to beat the deadline set for the completion of the marking exercise, would contract the marking of scripts allocated to them to some unaccredited touts. Furthermore, some of the Assistant Examiners vetted their scripts by themselves due to the lackadaisical attitude of some of the team leaders. This ugly situation might not be unconnected with the alleged rather poor remuneration paid to these Examiners.

8. Conclusions

The study concluded that though the pre and post-examination administrative processes adopted by WAEC were ethical enough and should have been effective in curbing examination malpractice, this has not really succeeded due to human factors. In the course of these processes, the integrity of the officials have been called into question and there had been instances of gross display of lack of integrity on the part of some examination officials.

9. Recommendations

- The Head of TDD should work with selected people appointed by the HNO to compile and select questions stage by stage so that none of those who compiled and selected questions initially would be privy to the questions that were finally selected.
- The recruitment policy of examination officials in WAEC should be reviewed to give room for integrity vetting before engagement. Training and retraining of staff in the area of moral character building is also recommended.
- WAEC should build the moral character of those it engages to implement its examination administrative processes so as not to lose the battle as a result of human factors.

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"Footstep Guide": The Adventurous "Walk" of Bruce Onobrakpeya

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Abstract. Walking suggests motion, movement, and a non-static state. Although walking is in the domain of psychomotor, however its operations transverses and permeates other domains such as Cognitive and Affective. Walking in life begins with a step which could be ignited by Cognitive calculations, while the affective cultivation driven by dream is responsible for the dynamics in the walks of individuals. Ogunfuwa captures it in his the poem "Footstep Guide", "Ahead, now look! A thrust in conquest be. Step guide to excellent adventure. Fear not, footsteps shall plant wisdom in few", Artist life is a walking life, a sojourn into the world of creative ingenuities without return. This paper therefore reviews and traces the "Footstep guide", stages of "Creative Walking" of one of the most documented and oldest practicing artists in Nigeria and one of the most leading artists in Africa who turns 90 this year. Each decade in the last 60 years of Bruce Onobrakpeya is a walk into experimentations of a new form of art. A compendium of art and culture whose creative journey is captured in 3 stages of "Footstep Guide", trained as a painter in 1962, walking with vigour into printmaking, navigating into plastography, additive plastography and collagraphy. This last decade witness his untiring quantum leap and adventurous walk into three dimensional arts of metal and plastic sculptures. Onobrakpeya is a "culture protagonist" walking in the regalia ornamented with experimentations. An attempt is made to review the different stages of his transformations and its implications on Nigeria art and artists as walking of discovery of media and forms.

Keywords: Walking, experimentation, Foot-guide, navigating, chameleon.

1. Introduction

Footstep refers to the mark of one's foot or distance covered by a step, which is synonymous with "walking". In the context of creativity, these two words (footstep and walking) connote advancement, experimental, braking of bounds and exploration and these are what Bruce Onobrakpeya is noted for. He is an artist of many parts, widely documented and one of Africa's best known and highly respected. Although Bruce Onobrakpeya is widely documented as artist with a great emphasis on his print making and additive plastograph, little is mentioned about his unconscious three dimensionality in his relief plastograph and his eventual migration fully into the realm of three dimensional arts of "sculpture". His involvements in all forms of visual arts is are like beginning with footsteps along the journey of life - a uniquely uncommon demeanor which is worth academic discourse. A trained painter, a master print-maker and a converted sculptor. His practice of over six decades is carefully segmented into four sections for the purpose of this study. His early life and training, his painting career, print making experiments and mastery and his sculpture sojourn in the last two decades.

1.1 Early Life and Education of Bruce Onobrakpeya

A local adage says "if a girl-child plays with her mother's shawl, she gets to master fast the act of tying a rapper", so was the case of Bruce, who had a carver as father and his mother a craft and bead collector. Born on August 30, 1932 in Agharha- Otor, Delta State, Nigeria, He had his elementary school in Ughelli and Sapele in Delta State and attended Western Boys High School, Benin city where he encountered art through Mr. Ivehiboje Edward with extra drawing classes at the British Council Art Club. His alma-matta was established in 1947, which may suggest why he was retained upon graduation to teach art probably for his expertise and for want of instructors. This gesture is a way of giving back to

one's community and notably this attitude cultivated at his early years became an attribute that consumed his adulthood. After leaving Ondo Boys High School in 1957, he was admitted to study Fine Art (a four-year programme) in Nigeria College of Art, Science and Technology at the instance of the Federal Government. He also completed postgraduate degree in arts education; this helped him greatly in teaching career at St. Gregory's College, Obalende, in Lagos State. As a professional in training, two things sharpened his proficiency; one according to the artist is the technical skills received through the Western tradition of representational arts, another is his membership of Zaria Art Society popularly called Zaria Rebels; a discussion group which sought to forge a unique style aimed at African aesthetics and natural synthesis. Although Bruce did not pursue his academic beyond the second degree, he taught in some secondary schools in Lagos before his final bow into full time studio practice. His involvement in workshops and in both local and international residences surpasses all his counterparts. His fluidity, flexibility and mobility in art related progammes was next to none of his Zarianists.
Stanley (2011) affirms that:

Onobrakpeya had participated in and helped run several print work- shops: at the Mbari Artists' and Writers Club print workshop in Ibadan (1962), at the Mbari Mbayo print workshop in Oshogbo (1964), and in 1974 at the University of Ife's Institute of African Studies, at the invitation of director Ulli Beier".
The wealth of experience garnered in the sixth decade of 20th century became potent tools and freedom to explore and experiment materials without fear of mistakes.
This is evident in Ubogu (2019) assertion that:
"by 1962, Onobrakpeya had moved from painting, pen and wash, landscapes, figure drawing and still life paintings to a more naturalistic art, taught by the European teachers at the Nigerian College of Art, Science and Technology, Zaria, to prints, after attending a workshop where he gained experience in print making (which is more illustrative) with cultural themes"

His early works portends portend walking into discovery were in oil paints but as a growing artist, he had to grapple with finding the right channel for his art. At the Mbari writers' and artists' workshop in 1963, he discovered printmaking and pursued it. Akatakpo (1998) refers to Bruce Onobrakpeya as the "Epitome of Dream and Realities of the Zaria Art Society". He acknowledges him as one of Nigeria's most prolific printmaker, and perhaps the most celebrated and publicized contemporary artist in Africa today.

2. Bruce Onobrakpeya and Pablo Picasso: A Similitude

Bruce Onobrakpeya according to Akatakpo (1998), is a rare example of a child brought up in the Christian faith, but through the oral tradition, also imbibed myths and legends of his culture. This he took advantage of, to interrogate his culture by exploring motifs from both experienccs of Christianity and Nigerian traditions. Bruce Onobrakpeya's walk in his art sojourn is like Pablo Picasso, Jegede (1992), affirms that Bruce came under the spell of Paul Gauguin whose paintings he very much admired. He ascertains that his paintings titled "cows, "palm wine woman, "have you heard, Ahwaire (tortoise) series were actually a glimpse of the Gauguin's influence. He concludes that "the fact that Bruce majored in painting is often underplayed or missed". This reason for his conclusion is not to demean Onobrakpeya but perhaps stems from the fact that his potentials would have been locked up permanently without breaking the bounds to explore other forms, if he had continued only as a painter.
Bruce had similar background and experience like that of Picasso, both specialized in painting, Picasso had a professor – painter father, this provided direction to walk for Picasso, escalated by his artistic endowment, while Bruce also had a carver as father. This rubbed on him and latter became noticed as he produced relief plastocasts and subsequently three dimensional works in his sixties.

Coincidentally, as Picasso disliked the formal instructions and decided to stop attending classes soon after he arrived at Spain's foremost art schools in Mardrid, the Royal Academy of San Fernando. It was revealing that Bruce in the company of other eleven members of Zaria Rebels also disliked Western traditional representational arts and agitated for natural synthesis. Pablo Picasso in Moore (2018) in Moore (2018) affirms "God is really only another artist. He invented the giraffe, the elephant and the cat. He has no real style; He just goes on trying other things". This affirmation from Picasso justifies why great artists were restlessly breaking bounds. Adenle (2020), futher observes that in the growing years of Bruce till now,he had tried many impossibilities and broken new grounds; experimentation is his overriding principle. Picasso puts it this way "go and do the things you can't, that is how you get to do them (Moore 2018). While Pablo Picasso [1881–1973] impacted the development of modern and contemporary art with unparallel magnitude, his his

painting styles transcend realism, abstraction, primitivism, cubism, surrealism and expressionism. This is similar to the comment of Bruce who says that his childhood experience of the cultural environment of Urhobo and Benin formed the artistic bedrock on which he continue to build, His early exposure to these arts sustained his artistic expressions by giving him access to a world of imagination, through bridging the thin gap between realism, surrealism and abstraction. Bruce also impacted and pioneered new avenues in print making, developing plastocast and plastohgraph techniques, illustrating books, producing paintings in multi-media, painting murals and published books, etc. Adepegba (1984), (1995) refers to him as the untiring experimentalist in Nigeria and abroad, he noted that both traditional sculptural forms and craft motifs appeal to Onobrakpeya and stresses that the motifs of craft such as tie and dye, textiles and calabash decorative elements of his prints are often employed as backgrounds. It is also noteworthy that Adepegba made this assertions about Bruce In 1984 and 1995 respectively when he was in his 50s and 60s. The footsteps of Bruce in the last three decades has been such that firmly stuck on the art terrains in Nigeria and Africa as a whole. This is evident in his working/walking and journeying through the genre of art forms.

Fig. 1: *Dr. Bruce Onobrakpeya (88 years, Left) with the researcher.* ***Location:*** *Dr. Bruce' resident, Source: Author*

3. Some Selected works of Bruce Onobrakpeya that characterize his "Visual Walking"

Fig 2: *Artist:Bruce Onobrakpeya, Year:* 1959, *Title:* Travellers, *Medium:*Drawing (Pen and wash) *Size:* 51.7cm x 35cm, about, Source: www.afrrevjo.net

Fig 3: *Artist: Bruce Onobrakpeya, Year:* 1962, *Title:* Entertainment, *Medium: Lino print*
Source: www.afrrevjo.net

Fig 4: *Artist: Bruce Onobrakpeya, Date: 1960 – 70, Title: Cows In Sunshine, Medium: Serigraph Print on Paper, Size: 55.9 x 76.2 cm*

Fig: 5: *Artist: Bruce Onobrakpeya, Date: 1960 - 70, Title: Have You Heard? Medium: Serigraph Print on Paper, Size: 55.9 x 76.2 cm*

Fig: 6: *Artist: Bruce Onobrakpeya, Year: 2013, Title: Ugbudia (Leadership), Medium: Plastograph on board (Low relief), Size: 111.5 x 81 cm. (44 x 32 in.)*

Figures 2-6 above are few of the large collections of lino, serigraph prints and plastograph

Fig 7: Artist: Bruce Onobrakpeya, Date: 2005, Title: Scavenging in the Lost Paradise, Medium: Installation Size: 120 by 220 cm

Fig. 8: *Artist: Bruce Onobrakpeya, Date : 2008, Title: Nomadic Masquerades, Medium: Mixed Media Sculpture, Size: 170 x 45 x 61 cm,*

Fig: 9: *Artist: Bruce Onobrakpeya, Title: Contemplating the Modern City, Year: 2012*
Medium: Installation (mixed media), Size: 287x69x625cm

Figures 7-9 above are few of his earlier works in Sculpture (installations and mixed media).

Fig:10: *Artist: Bruce Onobrakpeya, Year: 2013, Title: Totems, Medium: Fibre Glass, Size: 155cm*

Figure 10 above is one of his many works of "Totems" in Sculpture in the past one decade (installations and mixed media).

Fig: 11: *Artist: Bruce Onobrakpeya, Year: 2020, Title: A-Mmasquerader , Medium: Automobile Parts*
Size: 10 ft x 5ft by 1foot, Source: Author 31/08/2020,

Fig: 12: *Artist: Bruce Onobrakpeya, Year: 2020, Title: Ijele, Medium: Automobile Parts, Size: 8ft ft x 5ft by 1foot,* Source: Author 31/08/2020

Fig: 13: *Artist: Bruce Onobrakpeya*
Year: 2020
Title: Thorax of Antedulivian Insect (Orere)
Medium: Automobile Parts
Size: 12ft by 6ft by 1foot, Source: Author 31/08/2020

Fig: 14: *Artist: Bruce Onobrakpeya,*
Year: 2020
Title: Praying mantis
Medium: Automobile Parts
Size: 7ft by 2ft by 1foot, Source: Author 31/08/2020

Fig: 15: Artist: Bruce Onobrakpeya, Year: 2020, Title: Ongoing work, Medium: Automobile Parts, Size: Varying sizes

Figures 11- 15 above are part of his recent works of plastic experimentation in the last 2 years (2018-2020)

4. Discussion with Bruce Onokbrakpeya

Bruce Onobrakpeya is one of Nigeria‟s best-documented artists who obviously needs very little introduction in the visual art circle in Nigeria and Africa. He is regarded as a living legend (Ofuafo, 2017). A celebrated Nigerian painter and print-tmaker for his innovative print-making techniques.

Bruce Onobrakpeya who turns 90 years on 30th August 2022 in his smart stature taking a walk round his resent experimental works, discussing art as a voyage of discoveries that started with just lines which multiplied into the use of colours. It is observed that when you move you encounter, as long as you keep walking with the expected energy, new discoveries are certain. Bruce in his "movement" said "I specialized in Panting in my art school even though my lecturer Eric Tailor (a white expatriate) advised me to opt for graphics but I declined perhaps because of my shortsightedness of reducing graphics art to working on newspaper, cartooning and the strong force of my associates and ringing names of

masters like Pablo Picasso, Rembrandt, Michael Angelo and a host of others who specialized in painting and sculpture. I later on discovered shortly before and after graduation that that teacher who advised me to go into graphics specialisation was futuristic in his counsel because he saw my potential.
Bruce Onobrakpeya in his interview said "I attended 3 workshops where I was exposed to etching - a basic printmaking skill in GRAPHICS. Onabrakpeya said, 'then I realised that basically I was a graphic artist". I stated exploring with lines which multiplied into the use of colours, graduated into relief sculpture and latter to sculpture in the round. In plastocast, I extract what painting teaches and what sculpture teaches.

In the said period of time that Bruce referred to i.e. that is, before and after graduation, Stanley (2011) in her account says that the first and second workshops, in 1961 and 1962 in Ibadan under the auspices of the Mbari Writers' and Artists' Club, were for secondary school art teachers. They were initiated by Ulli Beier and led by Julian Beinart, Amancia Guedes, and Ru van Rossem. Ijisakin E. Ademuleya B. and Ajiboye O. (2019) also confirm that an expatriate artist named Ru Van Rosem demonstrated some printmaking techniques in both the erstwhile Nigerian College of Arts, Science, and Technology, Zaria (now Ahmadu Bello University) and Mbari art workshop at Ibadan in 1962; and Mbari Mbayo art workshop at Osogbo in 1963.

Although the range of Printmaking techniques explored and developed in the post independence include woodcuts, linocut, engraving, deep etching, dry point, lithography, screen-printing, collagraphy, and plastograph among others. However, Ijisakin (2019), affirms that printmaking methods had long been employed in Nigeria, especially in indigenous art practices as a means to certain aesthetic ends if not as an end in itself. This is evident in wood carving, ivory carving, calabash carving, blacksmithing, and other decorative arts that share affinities with woodcut relief, intaglio, and serigraphic processes of printmaking.

Some of the printmakers that benefited from the earliest workshops are late Solomon Irein Wangboje, Bruce Obomeyoma Onobrakpeya, Jimoh Adetunji Buraimoh, Rufus Ogundele, Jacob Afolabi, Adebisi Fabunmi, Yinka Adeyemi, Segun Adeku, Felix I. N. Ekeada, Ogbonnaya Nwagbara and so on.

Bruce Onobrakpeya experiments with a great variety of media and print techniques, has mentored hundreds of contemporary artist either as a secondary school teacher or through apprentice method of training, personal contacts and workshops. This passion leads him to establish Harmattan Workshop - an informal educational setup in form of a retreat, where artists and non artists meet, learn, think, work, experiment and share ideas.
Participants come with the view to develop and sustain their creative endeavors towards the development of the arts, particularly the visual arts. It was founded in 1998 patterned after workshops of 1960s and 1970s organized by Ulli Beier at Ibadan, Oshogbo and Ile Ife in Nigeria and the Haystack Mountain School of Arts and Crafts, Deer Isle, Maine, USA, (Adenle 2020)

The Harmattan Workshop since inception in 1998 is open to both male and female participants, regardless of age and status, the workshop is an annual event where professionals, academic artists, students of art and artists- in- training gather to learn new things – skills, techniques, materials, media and also exchange ideas. According to Stanley (2011), Bruce was quite open to participating in and benefiting from more informal, egalitarian workshops. He was not bothered working alongside untrained, aspiring artists and students at those early Mbari workshops, an attitude he employs even in his 80s for inspiration. For instance, many years of his presence at the HW,(Harmattan Workshop), his interactions with other artists has multiplier effects on him such that the more he gets older, the more curious he gets and the more he turns out conceptually engaging master-pieces of art works. Moore (2018), Pablo Picasso opines "God is really only another artist. He invented the giraffe, the elephant and the cat. He has no real style; He just goes on trying other things". This explains why Onobrakpeya continues to "walk" the forms through varieties of media to achieve aesthetic spectacles for his audience.

5. Conclusion

Ogunfuwa's Poem "Footstep Guide" -
"Ahead, now look!
A thrust in conquest be.
Step guide to excellent adventure"
The art engagements of Bruce Onobrakpeya is thus comprehended as looking ahead, thrusting to conquest and a guide to excellent adventure.
- "Ahead, now look! - typifies Onobrakpeya's school days,
- A thrust in conquest be - refers to his several early 1960s workshops participation in etching, which was greatly influenced by the artists he met; for instance when many artists with academic training were naturally reluctant to flow with untrained

participants, he sees the work of self-trained artists objectively, this is liken likened to Kennedy (2014)
- Step guide to excellent adventure" connotes his experiments in media and forms.
His academic training, workshop experiences and exposures have all contributed to his being versatile, experimental and creatively restless. He cultivated ability of working with the old, young, professional and non-professional, experienced and inexperienced which endeared him to the heart of many growing and upcoming artists. This gesture coupled with the establishment of Harmattan workshop paved ways for his influence on professional artists, non- artist and students to develop and sustain their creative endeavors towards the development of the arts, particularly the visual arts in Nigeria and Africa as a whole.

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Netflix Preference and the Viewership of DSTV among Babcock University Undergraduates

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Abstract. Since the advent of Netflix in Nigeria in 2016, there has been a decline in the viewership of DStv channels. Existing literature have investigated the impact Netflix has on DStv in other African countries, but no study has been conducted in Nigeria especially with respect to Nigerian university undergraduates. As such, this study examined the preference of Netflix and viewership of DStv channels among Babcock university undergraduates. The study adopted the uses and gratification theory, media dependency theory and technology acceptance model for the study. The study adopted the multiple sampling methods and employed the survey research design. With the aid of a well-structured questionnaire, the research gathered data from three hundred and seventy three (373) respondents across three schools in Babcock University. The collated data were analyzed, research hypotheses tested and results presented in table format. The study found that Babcock university undergraduates generally did not have a preference and viewership of DStv ("disagreed") but agreed with the factors that motivate a preference for Netflix. Further investigation showed a significant gender difference in the viewership of DSTV among Babcock university undergraduates.

Keywords: DStv, Netflix, Preference, Viewership, Over-the-top television

1. Introduction

Wilber (2022) opined that the concept of Over-the-top (OTT) Television service could be seen as an alternative to the existing traditional satellite or cable television in the delivery of media contents.

Studies, including Moghaddam, Car, Burgess, Mathur, Huang, Feamster, Felten, Mittal, and Narayanan (2019) have shown that the number of over-the-top television subscribers is on the drastic increase every day globally. Tengeh and Udoakpan (2021), also agreed with some researchers that such a spike has been a result of availability, accessibility, and low-cost broadband data existing globally. Park and Kwon (2019) pointed out that over-the-top media firms are transforming the competitive relationship among media firms in the broadcasting market and the structure of the broadcasting industry, hence, increasing accessibility, improving content delivery, and improving customer satisfaction through competition.

In America, it was estimated that by the end of 2019, 34% of U.S households would cut off their traditional pay-TV subscription as a result of the emergence of OTT TV services (Tingley, 2020). Wilbert (2022), identified the 10 most popular OTT streaming services as Netflix, Disney+, Hulu, ESPN+, Prime Video, HBO Max, Youtube TV, Starz, Sling TV, and Peacock. According to this report Netflix emerged as the most popular OTT streaming service globally using metrics such as titles, capacity, and pricing plans (Wilbert, 2022). It also raises the question of what the future holds for viewers and the television industry as technology grows more sophisticated. This is concerning and has been debated by the UN specialized agency for ICTs (2022). The situation is no different in Africa, as some regulatory authorities are clamoring for a regulatory environment that will enable the growth of Internet-based content and the pay-TV industry (Envisioning the future of television in Europe and beyond, 2022).

In Africa, the two sub-Saharan African countries leading in OTT TV streaming services, are South Africa and Nigeria (Broadcast Media Africa, 2022), where reports showed that by 2026, Africa will be experiencing up to 15.06 million video-streaming subscribers and Nigeria and South Africa, accounting for 2.3million of the additional 10million on the present 5.11million of the video streaming

subscribers existing currently (Broadcast Media Africa, 2022).

It is assumed that this growth as predicted might surpass the above figure by 2026 owing to the growing population of the two countries, recording 206.14 million people as of the year 2020 and 59.30 million for Nigeria and South Africa respectively (Trading Economics, 2022; PopulationU, 2021).
The Broadcast Media Africa Report 2022, established that Netflix, Disney+ and Showmax rank as the top three OTT streaming services in Africa. Netflix was the number one video streamer in Africa accounting for more than half the total figure of OTT TV subscribers in Africa (Broadcast Media Africa, 2022). Hence, it is very important to look at the effect of the emergence of Netflix on DSTV subscriptions in Nigeria as it was the most popular cable television service in the country.

It is on the premise that these are the most popular OTT streaming services in Africa and Nigeria is the most highly populated country in Africa that Netflix (and DStv?) and Nigeria were selected for this study.

2. Literature Review

The literature review will provide the context of the study in terms of the operation of DStv and Netflix in Nigeria as well as the relevance of the youth as a demographic segment of OTT streaming services. Discussion will follow on relevant studies and will conclude with the theoretical framing of the study.

2.1 DSTV Operation in Nigeria

DSTV with the brand name MultiChoice, is a joint venture between the company and a Nigerian businessman by the name Adewunmi Ogunsanya (About MultiChoice Nigeria, n.d). It began its operation in Nigeria in the year 1993 as a pay-TV service provider, offering numerous channels ranging from entertainment, news, sports, education, kiddies, etc (About MultiChoice Nigeria, n.d). Since its inception in Nigeria, DStv has operated on a monthly subscription business model. DSTV customers have the option to subscribe to a specific bouquet of channels based on what suits the customer's needs, resources capability, or the drive for a particular program of interest.

On August, 22 2020, the Nigeria Senate made it a deliberation and constituted a seven-man adhoc committee in one of their seating, to investigate the reported claim of DSTV customers against the sudden hike in subscription price (Unini, 2022). This claim alleged that DSTV informed their customers, especially the compact subscribers to "expect a 13.3% price increase to N7,900 up from N6,975 commencing from September 1, 2020" (Umoru, 2022; Unini, 2022) and this came immediately after the mandate from the Nigeria Senate to all pay-tv service providers to evaluate their bouquet prices downwards for customers in line with the harsh economic situation in Nigeria. This claim upon being proven by the Nigerian Senate, resolved, that the Federal Ministry of Communications and Digital Economy, and the Nigerian Communications Commission should in line with the people's voices direct all pay-tv providers with emphasis on DSTV to introduce a pay-per-view model of subscription as against the month to month prepaid model currently in place (Gazelle News, 2022; Unini, 2022).

2.2 Netflix Operation in Nigeria

Netflix was reported to be the largest on-demand streaming platform on the internet. It came to existence in Nigeria in the year 2016, at the point its emergence was established in 130 countries (Nwabuikwu, 2022). The emergence of Netflix in Nigeria in 2016 led to the birth of Netflix Naija as a streaming company with an office in Nigeria, acquiring a Nigeria-made movie "Lionheart" as the first streamed Nigerian movie on the platform (Nwabuikwu, 2022) with the aim of commissioning its own project.

Also, from the empirical analysis of this study, NetFlix emerged also as the most popular in Nigeria and thus informed the research direction on Netflix subscribers vis-a-vis DSTV subscribers in Nigeria. Its services and operations adopted the pay-per-view model with an affordable tariff cutting across its three different plans Basic plan, Standard plan, and Premium plan (Ajibola, 2021). In Nigeria, it was estimated in 2019 that not less than 50,000 consumers of TV content have subscribed to Netflix (Oludimu, 2019). This demonstrates the desire within the country to migrate to the over-the-top television services.

2.3 Review of Related Works

Gupta and Singharia (2021) investigated OTT media streaming consumption during the COVID-19 lockdown period and discovered that the shift from traditional media to over-the-top (OTT) media, especially during the COVID-19 lockdown period, has ultimately resulted in a war between online streaming suppliers to attract and retain customers. The authors recommend that service providers must

pay close attention to characteristics that improve involvement and user experience. Latiff, Ridzuan, Mohideen, Anuar, and Shukri (2016) in a study on how young people use internet television in Malaysia discovered that the viewing habits and practices are different from those for traditional television.

Dasgupta and Grover (2019) investigated the factors that influence millennial customers' adoption of over-the-top video services in India and discovered that data usage is one of the top worries of millennials when it comes to using OTT services to consume content. In a related study, Thakur (2021) discovered that diverse content is the primary driver of OTT platform adoption in India. Similarly, Luthra (2021) in examining the influence of COVID-19 pandemic on subscription to OTT platforms found that respondents are favourably disposed to OTT platform and are willing to spend more in exchange for carefully crafted content. According to Tengeh and Udoakpan (2021), the access of viewers to Internet and linked devices has changed television consumption practices in South Africa giving preference to online streaming over traditional television.

Ekwuazi (2014) found that the preference for DStv channels was based on tribe i.e. based on the three major Nigerian languages. Africa Magic Yoruba was the most preferred in Lagos, while Africa Magic Igbo and Africa Magic Hausa were most preferred in Onitsha/Aba and Kano provinces/ regions, respectively. Mishra and Esaimani (2020) studied youths use and awareness of Netflix and found that more males subscribe to Netflix in India than females and that content on Netflix is easily accessible because of accessibility to the Internet. However, the question of appropriateness of content for all age groups becomes an issue that some respondents require the intervention of the Censors board.

2.4 Theoretical framework

This study is anchored on the uses and gratification theory (UGT) as a device to explain the motivation to use OTT. UGT as an audience theory highlights what motivates people to use a medium and the satisfaction they obtain when it satisfies their needs. More audiences, especially Millennials, are turning to OTT services compared to traditional or cable television. The reasons include availability, accessibility, low-cost broadband data, continually improving content delivery, and improving customer satisfaction through competition (Tengeh and Udoakpan, 2021; Park and Kwon, 2019). In addition, one major reason for turning to OTT services is the feature of streaming various episodes of a series at once, or binge watching. In this case, audiences can view episodes of a programme back to back without waiting for traditional cable television scheduled media showings or limited on-demand features. Netflix as an OTT channel offers a purely on-demand media entertainment service giving audiences what they want to watch, when they want it, and at affordable prices. In addition, with convenience driving the process, consumers are using other devices to view content because of price and TV content quality (Elias, 2019).

This study thus is anchored on the following research question and hypothesis:
1. What factors motivate the preference of Netflix or DStv channels among Babcock university undergraduates?
H_0: There is no significant difference in the viewership of Dstv channels and Netflix among Babcock university undergraduates by gender and frequency of subscription.

3. Methodology

This study adopted quantitative survey research design to examine the influence of viewership preference on Netflix and DStv. The population of the study comprised Babcock University undergraduates totaled at 13,064 students (University Registry, 2021). This defined population included young people between the ages of 16 and 35. The Cochran formula for sample size calculation suggests a sample of 373. The multistage sampling was used to select the faculties and simple random sampling was used to select the departments. Purposive sampling was further used to select participants based on the criterion that they subscribe to Netflix and DSTV. The students also have internet access while on the university campus, and also have internet enabled devices with personal subscription.
A total of 37 undergraduates from a neighbouring institution participated in a pilot study. The Cronbach Alpha reliability test result of the pilot test was 0.721. An instrument is considered reliable if the Cronbach's alpha value is or greater than 0.7 (Goforth, 2015).
Data was collected over two weeks in March 2022. The instrument was administered in person to the respondents. Students who do not subscribe to any of the platforms were not eligible to be part of the study. All copies of the questionnaire were retrieved and validated for analysis.

Findings showed that there were 57.6% of females and 42.4% of males; most of the participants were between the ages of 16 to 25 (90.6%).

4. Results and discussion

Research Question One: What factors motivate the preference of Netflix or DStv channels among undergraduates of Babcock University?

Table 4.1.2a Factors that Motivate Preference of DSTV

Variables	**SA Freq. (%)**	**A Freq. (%)**	**D Freq. (%)**	**SD Freq. (%)**	**U Freq. (%)**	**Mean $\bar{x}$**	**Standard Deviation (SD)**
I prefer DStv to Netflix because I can watch content without internet connection.	86 (23.1)	157 (42.1)	57 (15.3)	19 (5.1)	54 (14.5)	3.54	1.30
I prefer DStv to Netflix because DStv has programme schedules and programmes are easy to find.	64 (17.2)	94 (25.2)	123 (33)	38 (10.2)	54 (14.5)	3.20	1.26
I prefer DStv to Netflix because DStv offers a fair amount of local content unlike Netflix.	60 (16.1)	108 (29)	105 (28.2)	36 (9.7)	64 (17.2)	3.17	1.30
I prefer DStv to Netflix because unlike Netflix, DStv does not have content exclusive to a particular country.	67 (18)	100 (26.8)	99 (26.5)	43 (11.5)	64 (17.2)	3.17	1.33
I prefer DStv to Netflix because DStv has better content.	62 (16.6)	100 (26.8)	106 (28.4)	41 (11)	64 (17.2)	3.15	1.31
Average Overall Mean						**3.25**	**1.30**

Source: Field Survey 2022; **Note: Freq. = Frequency**
KEY: SA=Strongly Agree, A= Agree, D=Disagree, SD=Strongly Disagree, U= Undecided***Decision Rule if mean is 1 to 1.79=Undecided; 1.80 to 2.59 = Strongly Disagree; 2.60 to 3.39 =Disagree; 3.40 to 4.19= Agree; 4.20 to 5 = Strongly Agree

Table 4.1.2a shows that undergraduates generally disagreed with the factors that motivate the preference of DSTV ($\bar{x}$= 3.25).

Table 4.1.2b Factors that Motivate Preference of Netflix

Variables	SA Freq. (%)	A Freq. (%)	D Freq. (%)	SD Freq. (%)	U Freq. (%)	Mean $\bar{x}$	Standard Deviation (SD)
I prefer Netflix to DStv because Netflix can be accessed from any device.	139 (37.3)	128 (34.3)	23 (6.2)	27 (7.2)	56 (15)	3.72	1.41
I prefer Netflix to DStv because Netflix can be accessed from any location unlike DStv.	135 (36.2)	122 (32.7)	39 (10.5)	15 (4.0)	62 (16.6)	3.68	1.42
I prefer Netflix to DStv because Netflix has content that can be accessed anytime.	123 (33)	136 (36.5)	33 (8.8)	19 (5.1)	62 (16.6)	3.64	1.41
I prefer Netflix to DStv because Netflix is cheaper to subscribe to.	132 (35.4)	108 (29)	38 (10.2)	15 (4)	80 (21.4)	3.53	1.53
I prefer Netflix to DStv because Netflix has better content.	86 (23.1)	143 (38.3)	33 (8.8)	27 (7.2)	84 (22.5)	3.32	1.48
Average Overall Mean						3.58	1.45

Source: Field Survey 2022; **Note: Freq. = Frequency**
KEY: SA=Strongly Agree, A= Agree, D=Disagree, SD=Strongly Disagree, U= Undecided***Decision Rule if mean is 1 to 1.79=Undecided; 1.80 to 2.59 = Strongly Disagree; 2.60 to 3.39 =Disagree; 3.40 to 4.19= Agree; 4.20 to 5 = Strongly Agree

Table 4.1.4b depicts that undergraduates agreed with the factors that motivate the preference of Netflix ($\bar{x}$= 3.58).

Test of Hypotheses

H_{01a}: There is no significant difference in the viewership of DStv among Babcock university undergraduates by gender.

Table 4.1.3: Independent T-Test Showing the Difference in Viewership Pattern of DSTV by Gender

	N	**Mean**	**SD**	**T**	**Df**	**P**	**Remark**
Female	215	17.56	4.62	3.34	371	**0.001**	**Significant**
Male	158	15.91	4.89				

Source: Field Survey 2022

Table 4.1.3 shows that there was a significant difference in the viewership of DStv among Babcock university undergraduates by gender ($t(373)= 3.34$, $p< 0.05$). Hence, the null hypothesis was rejected. This implies that both male and female undergraduates of Babcock University had different viewership pattern of DSTV. Closer look at

the data shows that female ($\bar{x}$= 17.56) undergraduates had better viewership pattern of DSTV than males ($\bar{x}$= 15.91), consequently, female undergraduates watched DSTV more than the males.

H_{01b}: There is no significant difference in the viewership of DStv among Babcock university undergraduates by frequency of subscription.

Table 4.1.4a Descriptive Analysis of Variance of Viewership Pattern of DSTV by Frequency of Subscription

Tests of Between-Subjects Effects

Dependent Variable: Viewership Pattern of DStv

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1698.204[a]	4	424.551	22.740	.000
Intercept	88411.459	1	88411.459	4735.491	.000
Frequency of Subscription	1698.204	4	424.551	22.740	.000
Error	6870.547	368	18.670		
Total	114605.000	373			
Corrected Total	8568.751	372			

a. R Squared = .198 (Adjusted R Squared = .189)

Source: Field Survey 2022

Table 4.1.4a shows that there was a significant difference in the viewership of DStv among Babcock university undergraduates by frequency of subscription ($F(4, 368) = 22.740$, $p < 0.05$). Therefore, the null hypothesis was rejected. The eta square value shows that the differences in frequency of subscription explained 19.8% in viewership pattern of DSTV among Babcock University undergraduates. This suggests that undergraduates of Babcock University had different pattern of viewership of DSTV based on frequency of subscription. Consequently, Levene's tests of equality of variance suggests that non-parametric analysis should be carried out for detailed study as shown in Table 4.1.5b

Table 4.1.5b Post Hoc Analysis of Variance of Viewership Pattern of DSTV by Frequency of Subscription

Dependent Variable: **Viewership Pattern of DStv**

Tamhane

(I) Frequency of Subscription to DStv	(J) (I) Frequency of Subscription to DStv	MD (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Never	Rarely	-5.7693*	1.20355	.000	-9.2496	-2.2890
	Sometimes	-4.9288*	1.15000	.001	-8.2670	-1.5906
	Often	-4.6893*	1.08612	.001	-7.8687	-1.5099
	Always	-7.4440*	1.10077	.000	-10.6590	-4.2289
Rarely	Never	5.7693*	1.20355	.000	2.2890	9.2496
	Sometimes	.8405	.78970	.967	-1.4169	3.0979
	Often	1.0800	.69338	.732	-.9180	3.0780
	Always	-1.6747	.71610	.197	-3.7324	.3830
Sometimes	Never	4.9288*	1.15000	.001	1.5906	8.2670
	Rarely	-.8405	.78970	.967	-3.0979	1.4169
	Often	.2395	.59562	1.000	-1.4541	1.9331
	Always	-2.5152*	.62192	.001	-4.2813	-.7490
Often	Never	4.6893*	1.08612	.001	1.5099	7.8687
	Rarely	-1.0800	.69338	.732	-3.0780	.9180
	Sometimes	-.2395	.59562	1.000	-1.9331	1.4541
	Always	-2.7547*	.49389	.000	-4.1535	-1.3559
Always	Never	7.4440*	1.10077	.000	4.2289	10.6590
	Rarely	1.6747	.71610	.197	-.3830	3.7324
	Sometimes	2.5152*	.62192	.001	.7490	4.2813
	Often	2.7547*	.49389	.000	1.3559	4.1535

. The mean difference is significant at the .05 level

Source: Field Survey 2022; MD= Mean Difference

Table 4.1.4b depicts that the differences in the viewership of DStv among Babcock university undergraduates by frequency of subscription is between those who subscribe always and often (MD=2.7547, $p < 0.05$), always and

sometimes (*MD*=2.5152, $p < 0.05$) and those who subscribe always and never (*MD*=7.4440, $p < 0.05$). This implies that undergraduates who subscribed always had better viewership pattern of DSTV compared with those who subscribed often, sometimes and those who never subscribed.

H_{01c}: There is no significant difference in the viewership of Netflix among Babcock university undergraduates by gender.

Table 4.1.5 Independent T-Test Showing the Difference in Viewership Pattern of Netflix by Gender

	N	Mean	SD	T	Df	P	Remark
Female	215	20.12	4.80	3.553	278	**0.001**	**Significant**
Male	158	17.96	6.42				

Source: Field Survey 2022

Table 4.1.5 depicts that there was a significant difference in the viewership of Netflix among Babcock university undergraduates by gender ($t(373) = 3.553$, $p < 0.05$). Hence, the null hypothesis was rejected. This suggests that both male and female undergraduates of Babcock University had different viewership pattern of Netflix. Closer look at the data shows that female ($\bar{x} = 20.12$) undergraduates had better viewership pattern of Netflix than males ($\bar{x} = 17.96$), consequently, female undergraduates watched Netflix more than the males.

H_{01d}: There is no significant difference in the viewership of Netflix among Babcock university undergraduates by frequency of subscription.

Table 4.1.6a Descriptive Analysis of Variance of Viewership Pattern of Netflix by Frequency of Subscription

Tests of Between-Subjects Effects

Dependent Variable: Viewership Pattern of Netflix

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	3483.737[a]	4	870.934	38.481	.000
Intercept	83735.708	1	83735.708	3699.792	.000
Frequency of Subscription	3483.737	4	870.934	38.481	.000
Error	8328.777	368	22.633		
Total	149369.000	373			
Corrected Total	11812.515	372			

a. R Squared = .295 (Adjusted R Squared = .287)

Source: Field Survey 2022

Table 4.1.6a shows that there was a significant difference in the viewership of Netflix among Babcock university undergraduates by frequency of subscription ($F(4, 368) = 38.481$, $p < 0.05$). Therefore, the null hypothesis was rejected. The eta square value shows that the differences in frequency of subscription explained 29.5% in viewership pattern of Netflix among Babcock University undergraduates. This suggests that undergraduates of Babcock University had different pattern of viewership of Netflix based on frequency of subscription. Consequently, Levene's tests of equality of variance suggests that non-parametric analysis should be carried out for detailed study as shown in Table 4.1.6b

Table 4.1.6b Post Hoc Analysis of Variance of Viewership Pattern of Netflix by Frequency of Subscription

Dependent Variable: **Viewership Pattern of Netflix**						
Tamhane						
(I) Frequency of Subscription to Netflix	(J) Frequency of Subscription to Netflix	MD (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Never	Rarely	-.3800	1.81991	1.000	-5.6641	4.9041
	Sometimes	-4.4911*	1.34551	.013	-8.3599	-.6223
	Often	-6.7454*	1.16375	.000	-10.1346	-3.3562
	Always	-8.1092*	1.14785	.000	-11.4594	-4.7590
Rarely	Never	.3800	1.81991	1.000	-4.9041	5.6641
	Sometimes	-4.1111	1.61656	.136	-8.8716	.6493
	Often	-6.3654*	1.46874	.001	-10.7818	-1.9490

	Always	-7.7292*	1.45617	.000	-12.1189	-3.3394
Sometimes	Never	4.4911*	1.34551	.013	.6223	8.3599
	Rarely	4.1111	1.61656	.136	-.6493	8.8716
	Often	-2.2543	.80962	.069	-4.6068	.0982
	Always	-3.6181*	.78660	.000	-5.9133	-1.3228
Often	Never	6.7454*	1.16375	.000	3.3562	10.1346
	Rarely	6.3654*	1.46874	.001	1.9490	10.7818
	Sometimes	2.2543	.80962	.069	-.0982	4.6068
	Always	-1.3638*	.40332	.009	-2.5048	-.2228
Always	Never	8.1092*	1.14785	.000	4.7590	11.4594
	Rarely	7.7292*	1.45617	.000	3.3394	12.1189
	Sometimes	3.6181*	.78660	.000	1.3228	5.9133
	Often	1.3638*	.40332	.009	.2228	2.5048
. The mean difference is significant at the .05 level						

Source: Field Survey 2022; MD= Mean Difference

Table 4.1.6b shows that the difference in the viewership of Netflix among Babcock university undergraduates lies with those who subscribe to Netflix always and often (*MD*=1.3638, $p< 0.05$), always and sometimes (*MD*=3.6181, $p< 0.05$), always and rarely (*MD*=7.7292, $p< 0.05$), always and never (*MD*=8.1092, $p< 0.05$). This means that undergraduates who subscribed always had better viewership pattern of Netflix compared with those who subscribed often, sometimes, rarely and those who never subscribed.

5. Discussion of findings

It was discovered that Babcock undergraduates viewed both DSTV and Netflix; however there was more viewership of Netflix. Respondents were also asked the factors that motivate their preference of either DSTV or Netflix. On the preference of DSTV, they agreed that they could watch content without internet connection. On the preference for Netflix, they agreed it has content that can be accessed anytime unlike DSTV that has a schedule of programmes; in addition, subscription to Netflix is cheaper. On preference of DSTV, Ekwuazi (2014) discovered that the most preferred DSTV stations were the African Magic stations in the three major Nigerian languages though in this study, respondents are not really in agreement that they prefer DSTV to Netflix because it offers a fair amount of local content. Conversely, Subscriptions on Netflix are managed by geographic area, according to Ju (2019): members registered in the United States, for example, only have access to TV series scheduled for the US site. In other words, Netflix TV show libraries differ depending on the region where streaming is available. The international aspect of Netflix programming, according to Straubhaar, Castro, Duarte, and Spence (2019), is of interest and attraction to the upper middle and elites, who have the culture to appreciate and enjoy it. However, digital divides based on age or generation, class, and geography have restricted access to streaming television, which has the ability to lessen the extent toward which services like Netflix challenge network and cable television. These findings are supported by the uses and gratification theory that posits that users of a particular media form would do so depending on the benefits they derive from that media.

This study also demonstrated that there was a significant difference in the viewership of DSTV among Babcock university undergraduates by gender (t (373) = 3.34, $p< 0.05$). It was discovered that female undergraduates had better viewership of DSTV than males. This could be because DSTV offers an array of programming beyond movies and series. The study by Mishra and Esaimani (2020) in India shows that males are more aware and use Netflix compared to females.

6. Conclusion and Recommendation

Based on the findings, it was discovered that Babcock undergraduates prefer Netflix to DSTV. In addition, undergraduates disagreed with the factors that motivate the preference of DSTV, while they agreed with the factors that motivate the preference of Netflix. Further investigation showed there was a significant difference in the viewership of DSTV among Babcock university undergraduates by gender. It was found that female undergraduates had better viewership pattern of DSTV than male undergraduates. There was a significant difference in the viewership of DSTV among Babcock University undergraduates as undergraduates who subscribed

always had better viewership pattern of DSTV compared to those who subscribed often and sometimes.

This study thus recommends that DSTV as the least preferred change their style of delivery and also upgrade their content to appeal to more young people at affordable rates. Netflix on the other hand are to sustain the factors that make them more preferred while implementing better service features.

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An Assessment of Stress Patterns among Cadets of Nigerian Defence Academy, Kaduna, Nigeria

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Abstract. Stress is a normal and natural response of the body to a stressful situation. People respond to harmful situations differently. The way we tolerate exposure to stress varies from person to person. Our perception of any given circumstance determines our emotional and psychological outcome. Some people are resilient to stress while others are not, some are more stressed than others. The study is to examine the patterns of stress among cadets of Nigerian Defence Academy, Kaduna. Quantitative survey design was used for the research where 225 cadets, 181 males and 44 females were randomly sampled from faculties of Arts and Sciences. Stress Symptom Checklist (SSCL) was used as instrument to gather data. Frequencies and percentages were used to describe the data while independent t test was used to analyzed the data. Findings revealed that significant difference exits in the patterns of stress experienced by cadets, more cadets experience psychological stress than physical stress. On the hand the result indicated no significance difference in the stress patterns experience by art or science cadets and by male or female cadets. This implies that cadets have different patterns of experiencing stress but the way they experience stress is not different whether they study arts or science subjects or whether they are males or females. Naturally it is expected that more cadets should experience physical stress but it turned the other way. Thus, this suggests that more attention should be focused in managing psychological stress than physical stress among the cadets.

Keywords: Stress, Stress Patterns, Cadets, Nigerian Defence Academy

1. Introduction

Military training is composed of different level of stresses which includes physiological and psychological components. A cadet needs to attain certain standard in different facets of training to be a competent combatant officer. Human personality greatly varied from person to person which in turn affect the way individual cadet endure and absorbs the training hardship, not all cadets may be efficient in absorbing different stresses during training. Stress can affect both body and mind Alam and Dulal, (2018). Once the individual has been exposed to the stressor, a physiological stress response will occur. As a result, the stress response is often referred to as an adaptive one (Kavanagh 2005). However, Mandler in Kavanagh 2005) argued that focusing on the physiological aspects of stress is too narrow. He suggests that stress refers most appropriately to the convergence of both physiological and psychological effects of stressors. He maintains that only when stressors and their physiological responses affect behavior, thought, or action do they become relevant to the stress concept. Studies have shown variation in stress patterns among military personnel from different countries. A meta-analysis of 37 studies in the U.S. military, the prevalence of major depression (a symptom of psychological stress) ranges from 2.0 to 37.4% (Gadermann et al 2012). Similarly, the one-year prevalence of major depression of the Canadian Armed Forces is about 8%, much higher than 4% of the matched Canadian civilians (Theriault et al, 2019). In addition, the prevalence of posttraumatic stress disorder among the military returning from the Iraq war is estimated from 4 to 17% in the United States and from 3 to 6% in the United Kingdom (Richardson et al 2010, Fear et al 2010). Also on stress patterns, Ko-Huan Lin et al (2020) reported that military personnel reporting slight or great stress were less likely than those reporting normal psychological stress to mention they exercise more than once weekly (67.8% vs. 79.3%), similar to the U.S. survey reported (54.0% vs. 64.0%). Psychological stress is reciprocally related to physical activity as indicated in a prospective U.S. cohort of 300

enlisted military personnel, those who had a lower summation score of physical fitness at baseline exhibited more depressive symptoms at the end of an eight-week combat training course (Crowley et al, 2015). In a longitudinal study, Burrell et al (2022) reported that academic, military, and physical performance measures were collected over four years and the results indicated that a morning orientation was associated with better physical and military performance. Higher talent scores, as well as lower levels of negative affect, were associated with better performance across all three performance measures. On stress and gender; Hsieh et al (2019) found that male personnel have higher stress and gained more social support from supervisors and colleagues than female personnel who were less likely to have physical and mental issues. Miroljub et al (2021) revealed some findings of the regression model, with 29% variance, indicating to statistical relevant and independent contribution of gender and maladaptive perfectionism in explaining school success. Analyzing the effect of gender in this research, it is established that female cadet volleyball players have better school success that male cadet volleyball players. How much stress is too much differ from person to person. Some persons seem to be able to roll with life's punches, while others tend to crumble in the face of small obstacles or frustrations (Ko-Huan Lin et al 2020). Because of the widespread damage stress can cause, it's important to know our own limit. This study therefore, looks at stress patterns among cadets, what is the stress pattern of art and science cadets, are the stress patterns of male and female cadets different?

But, Miroljub et al 2021, reported differences between male and female cadets physical and psychological stress.

1.2 Hypotheses

- Cadets of Nigerian Defence academy will experience more physical stress as opposed to psychological stress patterns
- There will be a significant difference in patterns of stress between art and science cadets of Nigerian Defence academy
- There will be a significant difference in patterns of stress between male and female cadets of Nigerian Defence academy

2. Research Methodology

Quantitative survey design was used for the study. Stress pattern as the independent variable while course of study and gender as the dependent variables. The participants included 225 cadets of Nigerian Defence Academy, Kaduna, 181 are males representing 80.4% while 44 are females representing 19.6%. 102 cadets are from art courses out of which 85 are males and 17 are females while 123 cadets are from the science courses with 96 males and 27 females.

Stress Symptom Checklist was used to collect data. The checklist consists of 53 symptoms, 28 symptoms of physical stress and 25 symptoms of psychological stress making a total of 53 symptoms. Sschlebusch, 2004, reported that to date, the data gathered show that the SSCL is a useful measure of non-pathological stress in the general population but that further refinements and validation studies are in progress. Researchers are lecturers to the cadets, so the instrument was administered to the 225 selected cadets by the researchers with the help of their colleagues from other faculty during their general studies classes.

3. Result

The data obtained from a total 225 respondents from two Arts and Science faculties was analyzed with the statistical package of the Version 26. The first section presents the frequency distribution of the bio data variables of gender and faculties of the students while the second section tests the three hypotheses using inferential statistics of Paired sample t test and the independent t test statistics. All the hypotheses were tested at 0.05 alpha level of significance

Table 1: Frequency and Distribution of Respondents by Faculty

		Frequency	Percent
	Arts	102	45.3
	Science	123	54.7
	Total	225	100.0

The cadets were drawn from two faculties of Arts and Science. Consequently, a total of 102 representing 45.3% are from faculty of Arts while the remaining 123 representing 54.7% are from science faculty. This showed that a total of 225 cadets were used for the study.

Table 2: Frequency and Distribution of respondents by Gender

	Frequency	Percentage
Male	181	80.4
Female	44	19.4
Total	225	100.0

On the basis of gender status, 181 of the respondents representing 80.4% are male cadets and the rest 44 representing 19.6% are female cadets

Hypothesis One: Cadets of Nigerian Defense Academy Kaduna will experience more physical stress as opposed to psychological stress patterns.

Table 3: Paired sample t test among Cadets of Nigerian Defense Academy Kaduna in their difference between experience in physical stress and psychological stress patterns.

Variables	N	Mean	S.D	Mean Difference	Df	t computed	t critical	P
Physical Stress	225	39.5111	9.72942					
				3.95111	224	7.455	1.96	0.000
Psychological stress	225	43.4622	10.96584					

$p < 0.05$, t computed > 1.96 at df 224

Results of the Paired sample t test showed that significant difference exist among the Cadets of Nigerian Defense Academy Kaduna in their experience in physical and psychological stress patterns. This is because the calculated p value of 0.000 is below the 0.05 alpha level of significance as the computed t value of 7.455 is greater than the 1.96 t critical value at df 224. Their mean physical and psychological stress experiences are 39.5111 and 43.4622 respectively with a mean difference of 3.95111 on the side of psychological stress. This shows that cadets experience psychological stress more than physical stress. Therefore, the hypothesis which state that Cadets of Nigerian Defense Academy Kaduna will experience more physical stress as opposed to psychological stress patterns, is hereby confirmed

Hypothesis Two: There will be a significant difference in patterns of stress between Cadets of Arts and Science faculties in the Nigerian Defense Academy Kaduna.

Table 4: Independent t test statistics on difference in patterns of stress between Cadets of Arts and Science faculties in the Nigerian Defense Academy Kaduna

Pattern of Stress	faculty	N	Mean	S.D	Mean. Diff.	Df	t. computed	t critical	P value
Physical Stress	Arts	102	39.058	9.334	0.827	223	0.634	1.96	0.527
	Science	123	39.886	10.067	.				
Psychological Stress	Arts	102	43.902	10.916	0.854	223	1.95	1.96	0.062
	Science	123	44.756	10.881	.				

Physical stress: $p > 0.05$, t computed < 1.96 at df 223
Psychological stress: $p > 0.05$, t computed < 1.96 at df 223

The Independent t test statistics above showed that there is no significant difference in patterns of stress between Cadets of Arts and Science faculties in the Nigerian Defense Academy Kaduna. This is because the calculated p value of 0.527 in physical stress between Arts and Science is greater than the 0.05 alpha level of significance and in the same vein the calculated p value of 0.062 in Psychological stress between Arts and science is greater than the 0.05 alpha level. The physical stress level of Arts and Science cadets are 39.058 and 39.886 respectively, while the Psychological stress level of Arts and science cadets are 43.902 and 44.756 respectively. All these showed that the physical stress of Arts and Science are the same just as the psychological stress for Arts and science are the same. Therefore, the hypothesis that state that there will be a significant difference in patterns of stress between Cadets of Arts and Science faculties in the Nigerian Defense Academy Kaduna, is hereby rejected.

Hypothesis Three: There will be a significant difference in patterns of stress between Male and female Cadets of the Nigerian Defense Academy Kaduna.

Table 6: Independent t test statistics on difference in patterns of stress between Male and female Cadets of the Nigerian Defense Academy Kaduna

Pattern of Stress	Gender	N	Mean	S.D	Mean. Diff.	Df	t. computed	t critical	P value
Physical Stress	Male	181	39.475	9.988	0.183	223	0.112	1.96	0.911
	Female	44	39.659	8.685					
Psychological Stress	Male	181	43.508	11.573	0.235	223	0.128	1.96	0.899
	Female	44	43.272	8.105					

Physical stress: $p > 0.05$, t computed < 1.96 at df 223
Psychological stress: $p > 0.05$, t computed < 1.96 at df 223

The Independent t test statistics above showed that there is no significant difference in patterns of stress between Male and female Cadets of Nigerian Defense Academy Kaduna. This is because the calculated p value of 0.911 in physical stress between male and Female is greater than the 0.05 alpha level of significance and in the same vein the calculated p value of 0.899 in Psychological stress between male and female is greater than the 0.05 alpha level. The physical stress level of Male and female cadets are 39.475 and 39.659 respectively, while the Psychological stress level of Male and female cadets are 43.508 and 43.272 respectively. All these showed that the physical stress for male and female cadets is the same just as the psychological stress for Male and female cadets are the same. Therefore, the hypothesis that state that there will be a significant difference in patterns of stress between Male and female Cadets of the Nigerian Defense Academy Kaduna, is hereby rejected.

4. Discussion

Results of the Paired sample t test showed that significant difference exist among Cadets of Nigerian Defense Academy Kaduna in their experience in physical and psychological stress patterns. This is because the calculated p value of 0.000 is below the 0.05 alpha level of significance as the computed t value of 7.455 is greater than the 1.96 t critical value at df 224. This shows that cadets experience psychological stress more than physical stress. Similarly, various studies have shown variation in stress patterns among military personnel from different countries. A meta-analysis of 37 studies in the U.S. military, the prevalence of psychological stress in terms of major depression and posttraumatic depression varies among military personnel in US, Canada, United Kingdom and Iraq Gadermann et al (2012), Theriault et al, (2019) Ko-Huan Lin et al, (2020), Richardson et al 2010, Fear et al (2010) Crowley et al, (2015). The findings also revealed that no difference in patterns of stress between Cadets of Arts and Science faculties. This is because the calculated p value of 0.527 in physical stress between Arts and Science is greater than the 0.05 alpha level of significance and in the same vein the calculated p value of 0.062 in Psychological stress between Arts and science is greater than the 0.05 alpha level. In the same vein, Nasioudis et al found that academic performance, year of training and gender have been associated with the presence of depression. On the contrary, Burrell et al (2022, Ko-Huan Lin et al 2020) reported variation in academic training due to psychological and stress of individual. Nasioudis et al 2015 also reported that higher education level, shorter military service, origin from a city or town and health problems during military training were associated with depressive symptoms. The Independent t test statistics showed that there is no difference in patterns of stress between Male and female Cadets. This is because the calculated p value of 0.911 in physical stress between male and female is greater than the 0.05 alpha level of significance and in the same vein the calculated p value of 0.899 in psychological stress between male and female is greater than the 0.05 alpha level.

Nasioudis et al 2015 also reported no any significant differences between the two groups based on gender, year of training, academic performance, alcohol consumption, smoking status, vitamin supplementation, dietary habits or BMI. But, Hsieh et al, (2019). But, Miroljub et al 2021, reported differences between male and female cadets physical and psychological stress. Analyzing the effect of gender in this research, it is established that female cadets volleyball players have better school success that male cadets volleyball players. These findings match the research (Miroljub, 2021) where better school success of female athletes is explained by the difference in motivation, social support, commitment and persistence.

5. Conclusion and Recommendations

In conclusion the cadets of Nigerian defense academy experience significantly higher psychological stress than physical stress by either the cadets of science or Arts faculties and by both male and female alike

The following recommendations are made:

- Cadets should be checking their stress levels psychological stress of the cadets should be reduced especially their high level of anxiety through providing relaxation activities.
- The management should provide qualified psychologists and guidance counselors in the campus that will take care of the cadets' psychological stress.
- There should be regular interface between the management and the cadets to discuss their stress levels

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The Effects of Formative Assessment on Pupils' Achievement in Civic Education in Lower Basic Education in Gombe, Gombe State, Nigeria

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Abstract. The paper investigated the effects of formative assessment on pupils' achievement in civic education in Lower Basic Education in Gombe. The study adopted a quasi-experimental research design specifically, the pre-test post-test non-equivalent control group design. The population of the study comprised all the 37 public primary schools in Gombe. Two schools were randomly selected which had 91 pupils with 46 in experimental group and 45 in the control group who were used with as intact classes. Public primary schools were used because they record more pupils' low achievement and share common characteristics in terms of provision of material and human resources. The instrument for data collection was a Civic Education Achievement Test (CEAT) which consisted of two sections A and B. Section A dealt on bio data of the pupils while section B contained 20 four-option multiple choice items in Civic Education contents. The CEAT was developed using table of specifications and was further subjected to scrutiny of three experts, one in Civic Education and two from Research, Measurement and Evaluation (RME) Unit in the Department of Educational Foundations, University of Jos. The experts were to judge the items' comprehensiveness, wording appropriateness, adequacy, precision and clarity. Their corrections and suggestions guided the production of final copy of the CEAT. The experimental group was taught civic education using formative assessment technique while the control group was taught using discussion method. A test-retest reliability coefficient of 0.82 was obtained using PPMC. Four research questions were raised and three hypotheses were formulated and tested at 0.05 level of significance. Mean, standard deviation and graph were used in answering the research questions while t-test for independent samples was used in testing the hypotheses. The findings of the study revealed that pupils' pre-test civic education mean scores were low but the experimental group recorded higher mean scores after exposure to formative assessment. The t-test analysis indicated that there was a statistically significant difference between posttest means of the experimental and control groups. Gender did not affect the posttest civic education mean scores of the experimental group. The study recommended that the Gombe SUBEB should organize conferences, seminars and workshops for teachers and design curriculum on formative and other innovative assessment techniques.

Keywords: Civic Education, Formative Assessment, Lower Basic Education

1. Introduction

Education is a vital tool that cannot be separated from-human life. It is medium of transmitting knowledge from generation to generation. Education is the means through which the imparting of knowledge, skills, attitudes, values, habits and character are made possible to younger generations. Education takes place in the classroom through instruction whereby the teacher facilitates learning and assesses the level of learners' mastery of learning outcomes. Education plays an important role in the development of every society such that any country that does not have good education might lag behind other countries in technological advancement and development particularly, the attainment of the millennium development goals (MDG) of the 21st century. The relevance of education in the overall development

of individuals of any nation has led the Nigerian government to introduce different subjects at different levels of her educational systems, from primary, secondary to tertiary levels all geared towards realizing the goals of education of the country.

For instance, it has run the 7-5-4 system, the 6-3-3-4system and currently the 9-3-4 system, the Universal Basic Education (UBE). The UBE was introduced in 1999 and divided the Nigerian education system into 9 years basic education of 3 years lower basic, 3 years middle basic and 3 years upper basic education to 3 years secondary and 4 years tertiary education. The basic reason for the reforms in education has been to provide the desired and suitable type of education that will meet the needs of the country. Among the subjects offered at the UBE level is Civics Education which aims at fostering patriotism, nationalism and character building. Civic education is similar to the education that was given to members of society during the pre-colonial era in form of learning by doing or apprenticeship to prepare individuals to take certain roles in society, be self-reliant and to become useful to themselves and the society (Omolewa, 2007). Civic education teaches moral values of the society to individuals such as their rights and obligations as citizens of a country. It constitutes aspects on political structure, ideal governance and social systems as it pertains to national life, universal values in democratic communities and the cooperation that is necessary for development and peaceful coexistence in global community.

Thus, the aim of teaching civic education is to inculcate in individuals the responsibility of participation in politics and societal living, both at local, state and national levels. To achieve this, it is necessary that the learners are given quality education that resembles what obtains in real life situation towards achieving the goals and objectives of education of the country. There is need to employ innovative assessment strategies that involves and engages the learners in creating their own learning. This is because it is through assessment that relevant information about level of mastery is obtained for proper decision making about the specific educational objectives and the learners. Assessment is a process of determining the behavior of learners after some instructional process. It is the process of acquiring information about the effectiveness of instructional materials, strategies as well as the level of mastery of learners. Assessment involves multiple techniques in the form of written, oral and performance/demonstration formats in groups or individually. Assessment does not cover only the learning outcomes at the end of specific period of instruction but also the participation in learning by bringing classroom instruction and assessment together as learners are exposed to some contents (Orlando 2020). Assessment is designed to collect information about the quality of an individual's work or performance in terms of knowledge, skills, attitude or behaviour using a variety of procedures to collect the desired information (Johnson & Morris, 2009: Rabinowitz, 2010).

Assessment can be summative or formative in nature. Summative also called assessment of learning occurs after instruction and may be at end of a term, year, session or schooling programme, while formative assessment, called assessment for learning is carried out before and during instructional processes. It illustrates the partnership that exists between the instructional processes rather than just collecting data based on learners' test scores. Thus, formative assessment aims at improving the quality of instruction by modifying the learning. It tries to find out in a systematic manner, the over-all students' level of acquisition of knowledge, attitudes and skills after exposure to specific learning experiences (Kivuti, 2015). It is a process in which teachers and students provide feedback during instruction, informs teachers about whether students have learned and the indicators of learning thereby blending of instruction process in order to increase student achievement (Miller & Lavin, 2007; McManus, 2008; Wuest & Fisette, 2012).

Formative assessment is an on-going process that provides instant and specific feedback after each learning step to avoid unnecessary delay about learner's progress and correcting learners' errors for diagnostic and remedial purposes. It engages in frequent interactive assessments of learners' progress and understanding to identify their learning needs and to adjust teaching appropriately. Formative assessment can occur organically within a classroom setting in the form of discussion, observation, group work, or simple student-teacher interaction (Kline, 2013). One of the primary elements of formative assessment is posing and asking questions at each stage of learning to obtain information about students' depth of knowledge/mastery level (McMillan, 2014).

Formative assessment is a strategy that has been found to help improve students' achievement in many school subjects. For instance, Ugodulunwa and Okolo (2015) found that formative assessment helped to reduce secondary school students' mathematics test anxiety and to improve their achievement in mathematics. Alashwal (2020) also reported that formative assessment helped to build in elementary pupils a positive attitude towards learning. In addition, (Huisman, 2018; Jeneth 2019;

Dandekar 2020) found that formative assessment helped to improve learning/achievement in school subjects. Despite the relevance of formative assessment in inproving learners' level of mastery of instruction, most teachers in Gombe are yet to employ its use in their day to day pedagogy. This may account for learners' poor achievement in Civic Education.

Among the factors that could affect students' achievement is gender. Gender refers to being male or female and roles and responsibilities of males and females that are created in the family, society, and culture UNESCO (2003). Gender also includes the expectations held about characteristics, aptitude, and likely behavior of males and females (masculinity and femininity). Gender roles and expectation are learned and can change over time and vary within and between culture and social differentiation such as political status or class, ethnicity, physical and mental disability and age among others. However, gender has been found to account for variation in students' achievement in school subjects though inconsistent (Moyosore, 2015; Alshwal, 2020).

Pupils' achievement in civic education in Gombe is poor. This is worrisome because it makes pupils not to be self-reliant and self-employed after leaving school. Civic education Basic Education Certificate Examination (BECE) conducted over the years in Gombe shows that performance of the pupils is poor. For instance, in the year 2012, 27.19% of 310 pupils that registered for the civic education examination passed with credits. In 2013, 64.72% out of 316 pupils that registered for the examination of civic education earned credits. In 2014, 42.04% out of 330 pupils that registered for the civic examination obtained credits. In 2015, 38.87% out of 318, pupils that registered for the examination passed with credits. In 2016, 50.47% out of 298 pupils that registered for the examination of civic education passed with credits. While in 2017, 47.39% out of 270 pupils that registered for the examination obtained credits.

Pupils' poor performance in civic education may deny pupils the opportunity to study civic education related subjects like social studies, sociology and citizenship education. Also, it will deprive and prevent pupils from reading courses that have a bearing with civic studies such as citizenship, peace and conflict studies and make them misfits in the society among others. There is need to improve students' performance in civic education by using innovative assessment such as formative assessment which assesses pupils' behavious during instructional process. It will show pupils' level of engagement and involvement in activities such as cooperation, respect for each other and interaction among others. It will equip lower basic pupils with the ideals in civic norms, moral values and societal and democratic values among others so as to make them patriotic citizens.

For instance, Moyosore (2015) found that formative assessment helped to improve performance in school subjects. There have been efforts by creation of school and the district branches of the National Commission for Civic Education (NCCE) in partnership to provide resource personnel to establish and manage civic education clubs in the school. The clubs engaged in different activities such as mock parliament, excursions to observe legislative proceedings, inter-school debate/quizzes with themes centered on current affairs, (Stephen, 2015). The researcher was not able to lay hands on studies conducted using formative assessment to improve pupils' academic achievement in lower basic education in Gombe. Hence, the present study sets to determine the effects of formative assessment on pupils' achievement in civic education in Lower Basic Education in Gombe.

2. Research Questions

The following research questions were formulated for the study:

- What is the pupils' achievement in civic education before their exposure to treatment?
- What is the posttest mean scores of the lower basic pupils in the experimental and control groups.
- What is the pre-test and post-test civic education mean scores of pupils in the experimental?
- What is the posttest civic education mean scores of pupils in the experimental group based on gender?

3. Hypotheses

The following hypotheses were formulated for the study and tested at 0.5 level of significance:

- There is no significant difference between the pre-test civic education mean scores of pupils in the experimental and control groups
- There is no significant difference between the posttest civic education mean scores of the pupils in experimental and control groups.
- There is no significant difference between the posttest civic education mean scores of the experimental group based on gender.

4. Methodology

The study adopted a quasi-experimental research design. Specifically, the pre-test post-test non-equivalent control group design whereby intact classes were used for the study without random assigning of subjects to the experimental and control groups. The pupils found in classes in the sampled schools were used without tempering with the school arrangements. The population of the study comprised of all primary civic education pupils in public schools in Gombe. There were 37 public primary schools in Gombe with population of 63,588 pupils comprising of 32,772 males and 30,816 females. Two schools were randomly selected from the 37 primary schools randomly assigned to the experimental and control groups. The two schools had 91 pupils with 46 in experimental group and 45 pupils in the control group.

The use of public primary schools within Gombe was because they record more pupils' low achievement and share similar common characteristics in terms of provision of material and human resources. The instrument used for data collection was a Civic Education Achievement Test (CEAT) for primary schools. The CEAT consisted of two sections A and B. Section A comprised items on the bio data of the pupils, while section B contained 20 four-option multiple choice items in Civic Education. The CEAT was developed using table of specifications to ensure that appropriate items were allocated to each topic based on the time allotted to it and the behavioural objectives. It was further subjected to content validity by three experts, one in civic education and two from Research, Measurement and Evaluation (RME) Unit in the Department of Educational Foundations, University of Jos.

The experts were to judge the CEAT items in terms of comprehensiveness in items of content coverage, wordings, appropriateness, adequacy, precision and clarity of language. The experts' corrections and suggestions guided the production of final copy of the CEAT. It was administered to both the experimental and control groups after which only the experimental group was taught civic education using formative assessment technique while the control group was taught using discussion method.

The Pearson Product Moment Correlation (PPMC) was used to estimate the reliability of the CEAT. A reliability coefficient of 0.82 was obtained which showed that the instrument was reliable and adequate for the study.

5. Results

Table 1: The Lower Basic Pupils' Achievement in Civic Education before Exposure to Treatment.

Group	No. of Pupils	$\bar{X}$	SD	Mean Difference
Experimental	46	52.06	8.86	
				1.73
Control	45	50.33	9.38	

Table 1 shows the mean scores and standard deviation of the pupils in Civic Education Achievement Test (CEAT) before they were exposed to treatment. The results show that pupils in the experimental group had a mean score of 52.06 and a standard deviation of 8.86 while the control group had a mean score of 50.33 with standard deviation of 9.38. The mean difference between the experimental and control groups in civic education was 1.73 in favour of the experimental group. This indicates that before treatment, the civic education achievement of pupils' in the experimental and control groups was at the same level, implying that the two groups were of the same ability.

Table 2: The Posttest Civic Education Achievement of the Lower Basic Pupils

Group	No. of Pupils	$\bar{X}$	SD	Mean Difference
Experimental	46	77.17	10.68	
				17.61
Control	45	59.56	10.60	

Table 2 presents the mean and standard deviation of the pupils in civic education after treatment. The results show that pupils in the experimental group had a posttest mean score of 77.17 and a standard deviation of 10.68, while pupils in the control group had a posttest mean score of 59.56 and a standard deviation of 10.60. The pupils' posttests mean score difference in civic education was 17.61. The results reveal a posttest mean score difference of 17.61 in favor of experimental group. That is, pupils in experimental group had a mean score of 17.61 higher than that of the control group mean. This implies that exposure to formative assessment boosted the mean scores of the pupils in civic education. The result indicates that the exposure to formative assessment helped to improve the pupils' performance in civic education.

Table 3: The Pretest and Posttest Mean Score of Pupils in the Experimental Group

Test	No. of Pupils	$\bar{X}$	SD	Mean Difference
Pretest	46	52.06	8.86	
				25.11
Posttest	46	77.12	10.68	

Table 3 shows the mean and standard deviation of the pre-test and posttest of the pupils in the experimental group in civic education. The results reveal pre-test mean score of 52.06 with standard deviation of 8.86 and posttest a mean score of 77.17 with standard deviation of 10.68. The experimental group posttest mean score was 77.17 as against their pre-test mean score of 52.06. The experimental group recorded a mean gain score of 25.11. This means that the pupils' perform higher in the posttest than in pre-test. It implies that exposure to formative assessment helped to improve the pupils achievement in civic education. This shows that formative assessment was more effective in teaching civic education than discussion method.

Table 4: The Civic Education Mean Scores of Pupils in the Experimental Group based on Gender.

Gender	No. of Pupils	$\bar{X}$	SD	Mean Difference
Male	19	76.94	9.01	
				0.56
Female	27	77.40	11.88	

Table 4 shows the mean and standard deviation of male and female of the posttest in the experimental group in civic education. The analysis shows that the males had a mean score of 76.94 with standard deviation of 9.01, while female have a mean score of 77.40 with standard deviation of 11.88. The mean score difference in civic education for males and females was 0.46. This shows the females had a mean score of 0.46 higher than that of the males. The mean difference based on gender seemed low which implies that gender did not affect the pupils' achievement in civic education when taught with formative assessment.

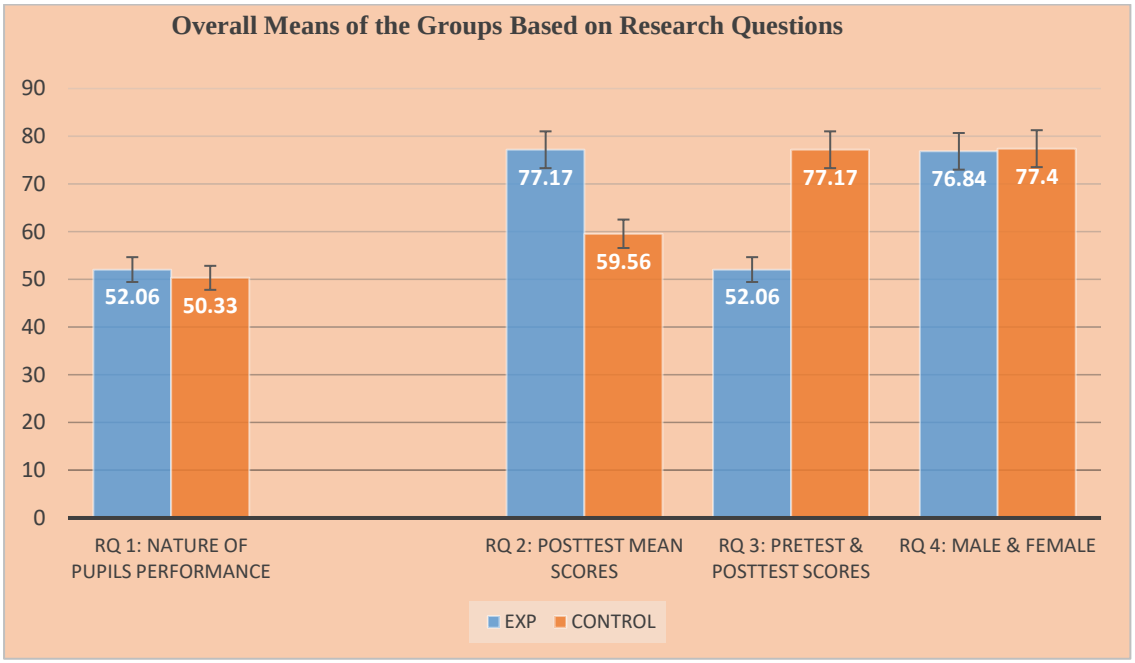

Figure 1: The Overall Civic Education Mean Scores of the Pupils' Achievement.

Figure 1 illustrates the civic education mean scores of the pupils based on the research questions. The column chart segment one shows the pupils' achievement for the experimental and control groups. Segment two presents the mean scores for research question two. Segment three illustrates the pupils' pretest and posttest achievement while segment four illustrates the civic education achievement of male and female pupils.

Table 5: The t-test Analysis for Difference between the Pre-test Civic Education Mean Scores of the Experimental and Control Groups.

Groups	N	$\bar{X}$	SD	Df	t	*P*-Value
Experimental	46	52.07	8.86			
				89	0.91	0.367
Control	45	50.33	9.38			

P>0. 05

Table 5 presents the t-test analysis for difference between the pre-test civic education mean scores of the experimental and control groups. The Table shows t = 0.91, df of 89 and *P*value = 0.37. The results show that the difference between the pre-test CEAT mean scores of the two groups was not significant. The *P*value of 0.37 is greater than 0.05 level of significance. The null hypothesis is upheld because our data does not provide sufficient evidence for us to reject it. This indicates that there is no statistically significant difference between the pre-test civic education mean scores of pupils in the experimental and control groups. This implies that the groups are at the same ability level.

Table 6: The t-test Analysis for Difference between the Posttest Mean Scores of the Experimental and Control Groups.

Groups	N	$\bar{X}$	SD	Df	t	*P*-Value
Experimental	46	77.17	10.68	89	7.90*	0.000
Control	45	59.56	10.60			

P<0. 05

Table 6 shows t =7.90, df = 89; *P*value of 0.00 indicates that the means of the two groups were significantly different. The *P*value of 0.00 is less than 0.05 level of significance. This indicates that there is a statistically significant difference between the civic education posttest mean scores of the experimental and control groups. The null hypothesis is rejected and we conclude that the posttest means of the two groups are statistically significantly different. It shows that exposure to formative assessment helped to improve the pupils' performance in civic education.

Table 7: The t-test Analysis for Difference between the Posttest Civic Education Mean Scores of the Experimental Group Based on Gender.

Groups	N	$\bar{X}$	SD	Df	t	*P*-Value
Male	19	76.84	9.01	44	–0.18NS	0.86
Female	27	77.41	11.88			

P<0. 05

Table 7 shows that with t = 0.18, df = 44; *P*value of 0.86. This shows that there is no significant difference between the posttest mean scores of males and females in the experimental group. A *P*value of 0.86 is greater than 0.05 level of significance. The null hypothesis is retained and it is concluded that there is no significant difference between the post-test civic education mean scores of the experimental group based on gender. This shows that formative assessment helped in improving pupils' achievement in civic education irrespective of gender. This means that gender did not affect the pupils' achievement when they were exposed to civic education content using formative assessment.

6. Discussion

The findings on pupils' achievement in civic education in Gombe showed that pupils in both the experimental and control groups were at the same ability level before exposure to treatment. The low mean difference between the two groups implies that the control group can compete favorably with the experimental group. This indicates that there is no statistically significant difference between the pre-test civic education mean scores of pupils in the experimental and control groups. It implies that the groups were at the same ability level. The finding is consistent with the findings of Dandekar (2020) who observed no statistically significant difference in the scores of students in short answer questions (SAQ).

The findings on difference between the posttest mean score of pupils in the experimental and control groups revealed that the experimental group had a higher mean gain score of 25.11 than the control group who had a mean gain score of 9.44. This implies that exposure to formative assessment boosted the mean scores of the experimental group pupils in civic education. The results of the t-test for independent samples indicated that the posttest means of the two groups were statistically significantly different. The result indicates that the exposure to formative assessment helped to improve the pupils' achievement in civic education. Formative assessment favored pupils in experimental group indicating that civic education pupils respond well to the self-paced assessments which allowed pupils to trial test their abilities, learn from their mistakes and build their capacities in a developmental process. Thing finding supports Huisman (2018) who found that use of formative assessment in the classroom positively impacted on students' learning. It is also in agreement with the findings of Jeneth (2019) that formative assessment had a positive impact on learners' achievement in secondary school mathematics instruction and the that five key formative assessment strategies improved learners' acquisition of problem solving skills after the intervention. The finding is

consistent with findings of Dandekar, (2020) who reported that students assessed with formative assessment scored significantly high than students in the control group. The foregoing indicated that formative assessment had a good effect on academic achievement of the students and that it helps in enhancement of learning. Exposure to formative assessment enabled learners to get involved and engaged in the learning processes and to develop their own learning. The finding is in line with the findings of Ugodulunwa and Okolo (2015) that formative assessment helped reduce anxiety level and improved mathematics performance of the students. It also agreed with the finding of Ozan and Kincal (2018) formative assessment helped learners achieve higher and develop positive attitudes toward the learning. The finding was also consistent with finding of Alashwal, (2020) formative assessment had significant effect on elementary school pupils by improving academic test scores.

The findings on pre and posttest of experimental group revealed a significant difference between the pretest and posttest civic education mean scores of pupils' in experimental group in favor of posttest. This means that pupil's performance was higher in posttest than in pre-test. It implies that exposure to formative assessment helped to improve the pupils achievement in civic education and that formative assessment was more effective method teaching civic education The findings agree with Dandekar (2020) who discovered that formative assessment helped improved students test scores. The finding also supports Ashdale, (2020) who found a statistically significant difference between the mean scores of the two groups. The experimental recorded a statistically significant increase of about 60% in their achievement.

The findings on difference between the civic education mean scores of males and females was 0.46 in favour of the females. The mean difference based on gender seemed low which implies that gender did not affect the pupils' achievement in civic education when taught with formative assessment. The t-test analysis showed that no statistically significant difference existed between the mean scores of male and female pupils. The null hypothesis was retained and it is concluded that there is no significant difference between the post-test civic education mean scores of the experimental group based on gender. The findings imply that formative assessment helped in improving pupils' achievement in civic education irrespective of gender. It also showed that gender did not affect the pupils' achievement when they were exposed to civic education. This finding supports Olagunju, Asimiyu and Moyorose (2015) discovered no gender difference in the mathematics achievement of students exposed to formative assessment. The finding is also consistent with Alashwal, (2020) who reported no significant difference between male and female pupils examination mean scores when exposed to Formative Classroom Assessment (FCA).

7. Conclusion

Formative assessment is an effective strategy for teaching civic education and adopting formative assessment and other innovative formative assessment techniques in teaching will enhance pupils/students' achievement in civic education and other school subjects. The difference in the posttest mean score of pupils in the experimental and control groups in favor of experimental group is an indication that formative assessment helped in diagnosing pupils' areas of difficulties and misconception such that remediation were provided to help improve pupils' mastery of the civic education contents.

8. Recommendations

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

- Civic education teachers should adopt formative assessment and other innovative assessment techniques to involve and engage pupils to have mastery of civic education contents.
- The Gombe SUBEB should organize conferences, seminars and workshops on formative and other innovative assessment techniques for civic education and subject teachers.
- The teachers' formative assessment for teaching civic education in primary schools.
- Establishing that formative assessment improved the civic education achievement of pupils at posttest, teachers should emphasize on regular diagnosis of pupils learning difficulties, provide feedback and remediation for pupils learning.
- The civic education teachers in Gombe should on their own part read to update their knowledge on innovative and current assessment practices.
- The State Universal Basic Education Board (SUBEB) in collaboration with Local Education Authorities should equip their teachers on innovative assessment practices.
- Curriculum designers and textbook developers should take into cognizance while designing tasks for learners that

learning in civic education should include a formative assessment.

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