

READINGS IN

UN-SUSTAINABLE

DEVELOPMENT GOALS (SDGs)

AND THE LAGOS REGION

EDITED BY

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EDITORIAL REMARKS

The Book is a collection of essays on Sustainable Development Goals (SDGs) attainment in the Lagos Region. It is the first book focusing on the subnational level of governance in Nigeria to document and interrogate the issues of SDGs in the context of Lagos State. It brings together experts and stakeholders' opinions, marched with both theoretical and empirical evidence from academic and policy analysts, to proffer solutions to various issues relating to sustainable development goals and the development in the Lagos region. The book dwells on development issues and their multifarious dimension from migration, informality, poverty, inequality, food security, to the inclusive city economy, and other issues in the Lagos Regions. It provides a meeting point for empirics, policies and practices. It draws conclusions and policy inferences from a diverse spectrum of scholars and policy analysts and independent assessment of the achievements made on the domestication of SDGs tenets in the subnational government programmes in Nigeria.

The purpose of the book is to draw attention and make suggestions on policy directions to Lagos State Government in addressing the SDGs in Lagos State and its environs. The book is a product of a three-day conference organized by the Faculty of Social Sciences in 2018 in which over 100 papers were submitted and presented. The Conference in its communique identified the attainment of the UN SDGs in the Lagos region as a challenge of urban development for many years and as such deserve the attention of not only policymakers at the Federal, State and Local Government levels but also the researchers and scholars in the academia. This book therefore aimed at bringing together relevant empirical evidence and policy perspectives of stakeholders with a view to building consensus and finding a lasting sustainable solution to challenges of urbanization, economic and social resilience in the Lagos metropolis and environs.

The book is excellent reading material for students in both undergraduate and postgraduate levels in development studies, public finance, economics, political sciences, sociology, psychology, mass communication social work and environmental studies and even in science, education and humanities. It is a good source of literature materials for building the research gaps for evidence-based policy research. It is a good material for government officials and

consultants on SDGs to draw inspiration on the direction of policies, programmes and projects aimed at addressing critical development issues at the subnational level of government especially in a metropolitan state like Lagos.

The book is divided into six sections and 40 chapters and covers all aspects of SDGs and issues relating to Lagos and its environs development. The chapters in the book were rendered in non-technical language and also devoid of usual academic jargons which makes the book to be more appealing to both academic and practitioners in all spheres of life. Each section comprises of chapters that fall within the ambit of the sub-themes.

The first section of the book is about **Transportation and Mobility**, and it comprises of three (3) papers. The Chapter 1 in this section examines the impact of urban mobility on regional development from 1995 to 2016 using the Error Correction Model (ECM). It found that rural-urban mobility has a significant negative effect on regional development. Chapter 2 assesses the logistics challenges in search and rescue operations by emergency management agencies in Lagos State while the third paper (Chapter 3) provides transit professionals with information and analysis relevant to adapting transportation assets and services to climate change impacts.

The second section of the book focuses on **Economy and Livelihood**, and is comprised of nine (9) papers because poverty and macroeconomic instability are very salient issues in Africa. This is why the first chapter (Chapter 4) in this section dissects trade openness, economic growth and poverty nexus in West Africa. The second paper (Chapter 5) established entrepreneurship as the pathway to economic progress for individuals with disability within the Lagos environs. Chapter 6 emphasised that demographic dynamics (fertility changes, population growth rate, morbidity and mortality rate) are stirring more rapidly in Lagos compared to other cities in sub-Saharan Africa; and as such drive negative consequences which could undermine sustainable regional development efforts. Chapter 7 provides a robust discussion on poverty and income distribution of the informal sector in Agege and Alimosho Local Government Areas; while Chapter 8 ascertains the mechanisms through which public spending and human capital, influence sustainable economic growth in Nigeria. Chapter 7 is on attempts to utilise legal service pro bono as a trajectory for access to justice in Nigeria; and Chapter 10 provides a robust academic discourse on economic growth impacts of life expectancy and poverty incidence

in Nigeria. Chapter 11 which emphasises the determinants of small enterprise's survival rate, and the use of SMEs as a tool for urban development in Lagos State concluded that SMEs survival rate is an average of 42.2%. The informal sector as a means of employment creation in Lagos State is discussed in Chapter 12.

More so, the third section comprises of seven (7) chapters which focus on **Social Well-Being and Healthiness** of Lagosians. The first chapter in this section (Chapter 13) discusses income inequality and health outcomes in relation to the health of residents in Ifako Ijaiye Local Government Area and it suggests that inequality exerts negative effects on health status. In Chapter 14, the extent to which Community Development Officers (CDOs) ensures sustainability of social services in Lagos is discussed; while Chapter 15 discusses how Child Rights Law and Custodial Institutions provide support for juveniles in Lagos State using the triangular approach. The next chapter (Chapter 16) reveals the existence of high incidence and intensity of health poverty among 346 respondents from ten (10) Local Government Areas (LGAs). Fertility, female education and female labour participation in relationships in Nigeria is discussed in Chapter 17; while Chapter 18 covers issues around skepticism of health workers in the use of the social media in prescription of drugs beyond antibiotics, anti-malarial and analgesics. Chapter 19 explains the effects of marital and sexual satisfaction on psychological distress, and its effects on family and national economy using survey data from 250 married couples.

The fourth section comprises of seven (7) chapters which discusses issues of **Governance and Public Administration**. Here, the first chapter which is Chapter 20 focuses on achieving sustainable climate change governance as a strategy towards managing uncertainty in policymaking as well as resolving politics-administration dichotomy in Lagos State. Chapter 21 analyses how neighbourhood houses influence community service and sustainable development in Makoko, Lagos State; while issues surrounding affordable and equitable city as an essential tool for sustainable Lagos region is discussed in Chapter 22. The next chapter (Chapter 23) dwells on the implications of civic activism and political party affiliation on sustainable governance in Nigeria. The paper conscientizes electorates on the corrupt practices that marred the various democratic dispensations in Nigeria. Chapter 24 dissects the assessment of the National Assembly legislative framework for the

Sustainable Development Goals (SDGs) in Nigeria and Chapter 25 analyses police brutality and police legitimacy in Nigeria, and the reasons why the #EndSARS protest metamorphosed to violence in Lagos. The setbacks towards the achievement of the Sustainable Development Goals (SDGs) as a result of institutional fragility in Lagos State were discussed in Chapter 26. The study concludes that the issue of strengthening the fragile political institutional structures for the success of sustainable development in the Lagos region must be a concern to all stakeholders, including parastatals (public and private) and individuals.

Furthermore, the fifth section which is made up of six (6) chapters focuses on the **Environment and Urban Governance**. This section begins with a critical analysis of disaster and risk management in Lagos State as discussed in Chapter 27; while Chapter 28 explains the effects of energy consumption on environmental degradation in Nigeria drawing its theoretical underpinnings from the Kuznets Hypothesis. Although, the study discovered negative significant effects of energy consumption and urbanisation on environmental degradation, however, it does not validate the Kuznets Hypothesis. The next chapter; Chapter 29 covers the incorporation of urban agriculture into emerging mega cities as a trajectory towards building sustainable cities in Lagos State; while Chapter 30 created awareness on the effect of marine debris on coastal communities with a special focus on Ibeju-Lekki environs of Lagos State. Subsequently, Chapter 31 and 32 pitched their searchlights on political institutions and sustainable governance in Nigeria and the need for Lagos to imitate Shanghai in her attempt to become a mega city in Africa respectively.

Interestingly, the Sixth section comprises of eight (8) chapters which focuses on **Education, Media and Communication**. The first paper in this section, that is, Chapter 33 ascertains the use of effective education as an effective tool towards accelerating the attainment of sustainable development in Nigeria. Chapter 34 provides the background which discusses the level of knowledge and perception among Makoko residents on the issue of Sustainable Development Goals (SDGs); while Chapter 35 provides detailed discussions on the relation between inclusive, equitable and quality education. The final chapters in this section – first and foremost, Chapter 36, dissects counselling as an ameliorative tool in reversing habit and effects of gambling among undergraduate students in the University of Lagos; and the author concluded

that study habit and attitude of students need to be emphasised especially among male students who are the major actors. Chapter 37 focuses on globalisation and financial integration in the Economic Community of West African States (ECOWAS) using pooled mean group regression technique. Chapter 38 dwells on evaluating locations of intercity passenger bus terminals in metropolitan Lagos. Chapter 39 investigates the socioeconomic factors and income level by conducting survey of poverty issues in Makoko and Yaba Extensions in Lagos State. The study recommends the need for government to create opportunities in other States, in order to ease the tension of migration to Lagos. Lastly, Chapter 40 examines strategies on enhancing prosperity through the Sustainable Development Goals (SDGs) in Nigeria.

Professor Olufemi Saibu
Lead Editor

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TRANSPORTATION AND MOBILITY

CHAPTER

1

THE EFFECT OF RURAL-URBAN MOBILITY ON REGIONAL DEVELOPMENT

Adeosun, Oluyemi Theophilus

Abstract

There is an upsurge in global migration, this is evident in the increasing number of people migrating from rural habitats to urban locations as a result of the existing socio-economic inequality between the rural and urban spaces. In Nigeria, the issue of migration-urbanisation is fast aggravating, which has earned it a front row in the country's human development agenda. However, there is paucity of works in the literature that focus on the drivers of the nexus between urban migration, urban mobility and regional development and the need to know the extent of the effect of such movement. While it is debatable that the migrant's productivity increase with transition to urban areas, studies are yet to determine the overall impact on human capital development, what extent does it impact on the host city, the rural community and the nation at large? The study examined the impact of urban mobility on regional development from 1995 to 2016 using the error correction method and found out that rural-urban mobility has a negative and significant effect on regional development. The study recommends that there is need to check rural-urban migration by developing development policies that provide for equitable development between rural and urban centres. This would go a long way in reducing negative consequences of urbanisation such as poverty, crime, poor housing, and unemployment among the legion of challenges of urbanisation caused essentially by the uncontrolled rural urban migration in a less developed country like Nigeria.

Keywords: Migration, Regional Development, Rural Areas, Urbanisation, Urban Mobility.

JEL Classification: R10, R11, R13

1.1 Introduction

In recent times, migration has taken the form of a global event and therefore resulting in intricacies and impacts with huge effects (UN 2016a). The movement of people from a location to another for reasons such as living or working defines migration (Huzdik, 2014; UN 2016b). Since the era of primitive men, humans have always involved themselves in the activity of movement. Reoccurring in the history of Africa and even beyond the continent, are stories involving movement (Akanji, 2012; Imoagene 2018). Widely, urbanisation is viewed as the evolution of areas possessing rural features, into towns. It is, in other words, the growth of towns from their hitherto statuses of rural settings. Urbanisation comes along with industrialisation through the establishment of factories and the expansion of employment opportunities (Abbass, 2012; Matzerath 2018).

An independent review of the countries from which international migrants originate reveals that Asia possesses the largest number, totalling an estimated 104 million, which represents 43 per cent of the total population of international migrants as at 2015. Coming second in the statistics, was Europe with an estimated 62 million migrants. The third place went to origins of Latin-America and the Caribbean with an estimated total of 37 million migrants. The largest diasporas in the world as revealed by a 2015 survey, are Indians, totalling 16 million, while Mexico by estimate has 12 million international migrants from its origin (UN, 2016b). Migration is mostly influenced by two factors these are the pull and push factors. Migration can be internal or international. Internal migration explains the movement of individuals within the same geographical territory which in this case can be a rural to urban movement. Migration, involves going across borders into international destinations (Adeola and Fayomi, 2012; Van Hear, 2018).

It is, however, important to note that movement between regions and/or states, and between geopolitical administrative zones, for instance Nigeria, is a form of migration that can be categorised as inter-state. The involvement of transportation in the process of relocation, is evidence that an effective transportation system/connectivity in rural-urban migration is required. (Oke, 2017; Russ, 2018)

A main urban difficulty encountered in this twenty-first century, is the quick development of multiple cities and the impact of this development on aggravating climate change condition. Roberts *et al.*, (2016) Existing disparities in the opportunities, resources and the degree of growth between regions and states has been key to the migration flow from localities and regions, a category which interstate migration is inclusive. The adverse effect of existing socio-economic privileges and growth in urban areas, is the rise in rural-urban migration, which usually results to regional development and planning challenges. Findings globally inform that a deficiency in urban planning, has led to a failure in facing these problems (Mora, 2017). Existing development in urban locations, are the most obvious reasons for the rising vulnerability of hundreds of millions of urban populace such as the upsurge in sea levels and other climate-related hazards. The world is increasingly becoming urbanised and the rate at which city populations grow and the rate at which countries urbanise is an indicator of the pace of social and economic change, though many cities enjoy quality of living, many of them possess large slums as a result of poor accommodation and the unaffordable standard of living. (Donk, 2006; Buhaug, 2013).

As at 1976, one third of world's populace, were domiciled in cities but a survey in 2006, which was 30 years after revealed that urban cities had one-half of the entire world's population (Tibajuka, 2006; Kemeny *et al* 2012). The Millennium Development Goals (MDGs), ascertained that by 2050, cities in the world are estimated to have grown to two-third which is an estimated 6 billion people (UN Habitat, 2006). The desire of people to emigrate will most likely remain on the high due to demographic variables, in spite of the dwindling rate of official unemployment which stood at 12 per cent as at 2005, against 99 per cent labour, supply still outshines demand, which is a trend likely to remain even till the close future. In the world's rank of most populous citizens, Nigeria falls within the first ten countries, with a rapid population rise of 2.38 per cent rate of increase, following findings reached by 2008. (Library of Congress, 2008; Tartiyus *et al*, 2015).

The effect and difficulties that accompanies the rural urban migration fad, has continually generated heated debates for over three decades. The category of individuals migrating from rural spaces into urban ones, belong in a class of the society characterised with a degree of socio-economic challenges with poverty

being the major and basic of the challenges. The debates centred around rural-urban chasm, has continued to gain attention since the 1960s which has created findings about the unstable condition of individuals domicile in urban and rural locations, coupled with the varying degrees of consequences resulting from these conditions. Developed countries of the world, began to experience urbanisation around the 1950's. Developing countries and invariably most of the world's developing regions such as Africa and Asia, belong in the rural category. However, it is estimated that more people will be living in urban areas than in rural areas in less developed countries by 2030 (UNDP, 2011). 3.5 billion of the world's population, which represents 50.5 percent of the world's population were as at 2010 living in urban areas. Growth of the world's population in the coming four decades is ascertained to occur in urban locations. This however, does not eliminate the rural-urban migration from occurring in the world during this period. By 2050 however, the amount of world growth in urban spaces is expected to be 5.2 billion, which doubles the 2.6 billion number in 2010. Specifically, developed countries are expected to experience a growth in the number of their urban residents with an estimated 1.1 billion population in 2050, as against the 0.9 million population in 2010. By 2050, the world's rural occupants are expected to decline in number by an estimated 0.6 Billion (Corbridge, 2005; UNDPF, 2011 and Davey, 2012).

Countries that mostly serve as host homes to migrants for employment or trade reasons have over time observed a form of population movement of cross country and rural-urban nature. This pattern of movement is powered by both exogenous and endogenous factors which influences the process of migration. Endogenous variables, are characterised by economic deviance and individual decision-making pattern which in no small measure fuels the desire and vision of potential places to relocate to, as well as the social and economic pattern that influences the migration process. (Mabogunje, 2005; Afolayan, 2011 and Ikwuyatum, 2006).

The pace of urbanisation in Nigeria, is rapid. Ogunbodede in 2010, stated and reached the conclusion that the rate of urbanisation grows at a rate of 26.5 per cent annually. The degree of growth however, varies from state to state as a result of the unequal availability of access to services of socio-economic nature for instance education, medical and healthcare services, security to state a few

(Rigon, 2018). It was revealed that states such as Lagos, Oyo, Rivers, Kano, Enugu and the Federal Capital Territory would by the year 2020, be occupied by over 10 million people. In the year 1950, only 29 per cent of Nigeria's total population lived in urban communities. By 1960, two urban centres existed which were Lagos and Ibadan with a total of 500 000 residents. The Nigeria of 1980 could boast of nine cities occupied by above half a million individuals. By 1960/1970 however, the rate of urban population had increased to 4.7 per cent. The rapid annual rate of Nigeria's urbanisation, allowed for urban population to grow at a rate of 4.9 per cent yearly between 1970 and 1982. Okhankhuele and Opafunso (2015).

The adverse effect of this is pressure on amenities in the urban spaces such as healthcare, power etc., (Ogunbodede 2010, Abbass, 2012). Conclusion reached by Egunjobi, 1999 and Filani, 2004 on the subject matter of challenges faced by modern and future urbanisation as well as the accompanying trends is the foreseeable emergence of poverty and underdevelopment to occur in developed countries and their urban cities. There is bound to be an immense effect from the quick rate of urbanisation in Nigeria on the health care delivery sector which puts at risk, the health situation of residents of the urban cities. In addition, rapid urbanisation due to interstate migration does have implication for urban mobility and regional development across the geopolitical zones Amrevurayire *et al.*, (2016).

The migration from rural to urban centres have indelible marks left in the rural centres resulting from migrants relocating with required services to urban centres. Migration of young adults from rural areas also placed a greater burden on the farmers who need the strength of the young ones to improve production Ofuoku (2012). Therefore, a farmer for instance will require more hours to cover a given plot of land as a result of the lack of helping hands, which reduces the leisure time of the farmer. The foregoing periods before the discovery of oil in Nigeria was the agricultural period. The advent of oil however has resulted in the mono-economy nature of Nigeria.

1.2 Review of Theories

Everett Lee's Theory of Migration

Everett Lee (1966) in his theory of migration divides the factors that determine the choice to migrate and the process of migration. This can be grouped into four classes or categories, the first being factors associated with the area of origin. In this category, there are many factors that motivate individuals to part from places of origin to outside areas. They are called push factors. The second class, comprises of variables linked with places of relocation, which usually are alluring forces existing in the places of relocation in which "selectivity" migrants are endeared to. Following Lee, these alluring forces, are mostly present in metropolitan locations of countries, with various pull factors available.

Pull factors are present in such areas. The third category is associated with the intervening obstacles. This third category has intervening hindrances such as proximity and transportation, which raises a migrant's choice of a place of destination. These obstacles have reduced in recent times as a result of technological growth. According to Lee, the monetary implication of movements, barriers arising from ethnicity as well as personal variables, makes up the intervening hindrances or obstacles. Lastly, it is the personal category on which the decision to migrate from a location of origin to an area of destination is based. An individual's opinion of the 'pull and push factors', are the major determinants of the eventual decision to migrate. He categorises these forces into "pluses" and "minuses" respectively. In other words, pluses are pull factors and minuses are push factors. In between them are "zeros" which balance the competing forces.

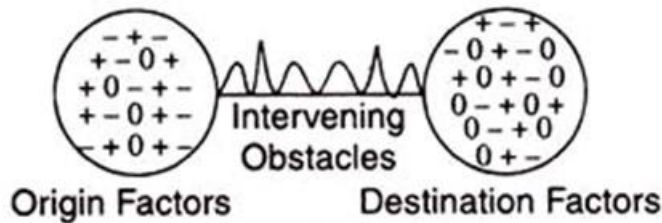


Figure 1: Major Determinants of Eventual Decisions to Migrate

Source: <http://www.sociologydiscussion.com>

These are explained in Figure 1, wherein the initial circle, represents the place of origin, while the second circle represents the place of destination. The plus signs within the circles represents variables that draw people to certain locations, i.e. pull factors. While the minus signs in the circles connote the push factors, which residence of an area of origin move from. Zeros in the circle, means the indifference of certain individuals, towards migration. In the midst of these forces, are intervening hindrances or obstacles.

According to Lee, it is the personal factors such as age, sex, race and education which along with the pull-push factors and intervening obstacles determine migration. Sequential migrants also exist, for example: wives and children of migrants, who have very minimal roles in the migration decision.

Standing's Theory of Materialism

Standing Guy (1981) examined Migration and Modes of Exploitation and presented the Social Origin of Immobility and Mobility theory. The theory emphasises that the size and level of migration are ascertained by the volume of productivity of the country, land ownership system operating in the country as well as variables controlling the growth of forces of production in a society. Standing drew reference from migration that occurred during the transition period between the ends of the feudalistic production and beginning of the capitalistic production. In the early times, the occurrence of migration, happened in group form. But this contemporary period witnesses the occurrence of individual migration. The feudalistic era did not experience migration, being that the feudal Lords saw to the control of cultivators. Also, the feudal system experienced no form of unique growth in cities, due to the absence of rural push migration. The development visible in capitalist system, is traceable to

migration. Migration causes an end to the class relations of old types and gives birth to a new type of class structure, the capitalist labour class. With migration, there is a sizable number of workforces at reduced wage rate. The possibility of exchanging the supply of labourers in new trades and new areas has increased which is responsible for the origin of a disciplined labour class. Over time, a surplus population which originates during the process of capital formation makes labourers more progressive, increases their work efficiency and motivates them to work for longer hours. Taking notes of various economic systems and diverse modes of production, Standing analysed the migration process.

Neo-classical Theory

The oldest and best-known theory of international migration is Neo-classical Theory. It explains the impact of labour migration on economic development (Arango, 2000; Lewis, 1954; Todaro, 1976; van Naerssen, Spaan, & Zoomers, 2008). Conclusion reached based on this theory and its extensions identifies the cause for international migration is the geographical differences existing between the demand and supply of labour. In regions where the supply of labour is elastic, but the labour is paid low wages and their marginal productivity is low, the labour force will most likely migrate to a high-wage country (Massey *et al.*, 1993), due to this trend, remittances generation has become a powerful incentive for labour-sending countries to encourage out-migration. In addition, migration contributes to the labour-receiving country's economy by fostering production, and the remittances receiving country could ideally reduce its income inequality and wage differentials (Prakash, 2009). However, the implicit idea behind this theory is that the elimination of wage differentials would end labour movements and labour migration would reach its minimum. (Harris and Todaro, 1970) have pointed out facts which are supportive of this argument. They emphasise that the decision to migrate is heavily influenced by job opportunities available to the migrant at the initial stage and expected income differentials. Formal statement of the condition of the Harris–Todaro model is as follows:

- Let w_r be the wage rate (marginal productivity of labour) in the rural agricultural sector.
- Let l_e be the total number of jobs available in the urban sector, which should be equal to the number of employed urban workers.

- Let l_{us} represent the aggregate number unemployed and employed job seekers in urban centres.
- Let w_u be the wage rate in the urban sector, which could possibly be set by the government with a minimum wage law.
- Rural to urban migration will take place if:

$$w_r < \frac{l_e}{l_{us}} w_u$$

- Conversely, urban to rural migration will occur if:

$$w_r > \frac{l_e}{l_{us}} w_u$$

- At equilibrium,

$$w_r = \frac{l_e}{l_{us}} w_u$$

- The theory allows for the determination of quantity of labour required in the urban zones and the contribution of labour to the growth of the destination region.

1.3 Empirical Review

According to Edith *et al.*, (2016) the desire to escape from an inferior social status imposed by the community because of the social status of one's parents, the desire to evade domination and restrictions imposed by one's parents or local custom, the yearning to attend high education institutions, which are mostly located in urban centres, are some of the reasons why people move from rural area to urban centre, furthermore, some run away from rural areas because of the crime they committed and the fear of perceived local enemies in the area, others move to urban centres as a result of the desire to experience other culture and recreational activities.

Rural-urban migration does have both positive and negative consequences on both regions, that is, the rural and the urban region. In the rural region, the residents decrease which also results in lower labour force, thereby reduction in agricultural production which is the mainstay of rural areas, participation in festivity and communal activities also experience a reduction in attendance. On the positive side, rural migrant gets better education at their destinations especially those who migrate based on educational purpose, some of the migrants who migrate because of trade-related reason often encourage investment and community development and make remittances back home this

also bring new ideas/innovations back to the community and develop entrepreneurial spirit, consequently the growth of the region.

The study further suggested some strategies of improving rural-urban migration which is the establishment of higher educational centres, industrialisation of the area, decentralisation of government parastatals to the rural area, youth and women empowerment, demilitarisation of the rural areas facing insecurity problems. It is on this background this research examines migration, urban mobility and regional development in Lagos, Nigeria. Furthermore, the study will add to volume of scarce literature on the subject matter.

Maarten (2012) examined the complex relationship between an individual's migration behaviour, area domiciled and their occupational performance in the Scottish labour market. Employing data generated by the Scottish Longitudinal Study, which observes 1991 and 2001 census records, logistic regression, the study reveals that people who migrate from far away countries into Scotland, stand higher chances of attaining upward occupational mobility. Furthermore, Edinburgh was found to be of highest regional importance in Scotland, thereby allowing migrants in Edinburgh to accomplish upward occupational mobility from whatever low status occupation they might begin with.

Chukwuedozie and Onokala (2013) Studied the impact rural-urban migration had on rural areas of the south eastern part of Nigeria. With the use of a mixed method approach, which involves questionnaire administration and major informant interview, data was gotten. Chi square and Kruskal wallis tests were also used to evaluate development intervention areas in rural communities. With regression analysis, it was shown that rural-urban migration has a great impact on the growth of the rural areas via pecuniary assistance as well as the participation of rural-urban migrants in projects which has communal value. The findings led to the conclusion that the creation of development projects, focused on the needs of the rural populace, will reduce whatever adverse effect that comes with rural-urban migration.

As much as the understanding of the relationship between migration, urban mobility and regional development remained an ancient problem in economics, country's specific empirical studies on it have been very scanty in Nigeria

especially. Although Chukwuedozie and Onokala (2013) observed the impact rural-urban migration has on existing rural areas in South-eastern Nigeria. Using a primary data analysis, suffice it to say that this method is not appropriate enough to investigate the effect of urban mobility and migration on regional development in Nigeria as it does not give some piece of information about what may likely happen to regional development in Nigeria in some future period. Hence, this study is focused on examining the relationship between migration, urban mobility and regional development using the secondary data analysis because this method will bring about a new views to the concept of migration, its trends, pattern of growth and the major impacts it has on the economy so that pro-active measures can be taken to avert every negative consequence that may likely occur and embrace all positive effect that is attached to increasing urban mobility on regional development. Hence, the study seeks to fill the gap.

Lagos State as a Case Study

Lagos State is one of the most populous states in Nigeria and in Africa, the population residing in Lagos is now ascertained to be around 13,463,421 (NBS, 2018). Whereas, Lagos in 1950, could only boast of 352,218 population, National Population Commission Nigeria (NPC, 2018). A consideration of the 2015 population, shows that Lagos has since 2015 risen in population by 1.224.215 which signifies a 3.23% yearly change. Originally, the inhabitants of Lagos State were a class of Yoruba people known as Aworis. As a result of concentrated migration, Lagos now possesses a population of diverse nature, originating from various parts of Nigeria and neighbouring countries. The dominant ethnic group amongst the over 250 existing in Lagos, however remains the Yorubas. There are other ethnic groups represented in Lagos which makes some group of people refer to it as no man's land.

This population growth in the State has brought both positive and negative consequences on the State, Abiodun (1974); Alade and Aina (2015) in terms of traffic congestion, poor housing, infrastructural stress, high rate of environmental pollution. However, the high population has brought development in her industrial sector. Lagos has become a commercial entity that Nigeria and the rest of the world cannot afford to let go of, the availability of cheap labour has made her contribute about 25% of the national income of

Nigeria. Her increased population have led to economic boost, increased level of innovation, excess manpower, increased manpower for defence (Abiodun *et al.*, (2017). The challenges though numerous, the government have provided some panacea to relieve the burden of urbanisation such as providing housing estate, expansion and construction of new roads, provision of basic health facilities, environmental policies to improve and make the environment habitable for the residents, furthermore, educational facilities are put in place to improve education and overall the living standard of the residences. These panaceas though they have positive effect is still not able to cater for the problems of urbanisation Oteri and Ayeni (2016).

Afolayan, Ikwuyatum and Abejide (2011) in their study of traders in four international markets namely: Alaba, Balogun, Computer Village, Ikeja and ASPMDA in Lagos metropolis, indicated that trade based or commercial migration evolves in a step-wise process from rural-urban and urban-international/foreign destinations. The Ibo in Nigeria ethnic group from the South-eastern part of Nigeria dominate commercial migration in the country; their trading destinations in Nigeria include the major urban centres: Lagos, Abuja, Port Harcourt, Enugu, Kaduna, Kano, Calabar, and Jos, among many others. The pattern of movement of traders from the geopolitical zones in the country is captured in Figure 2.

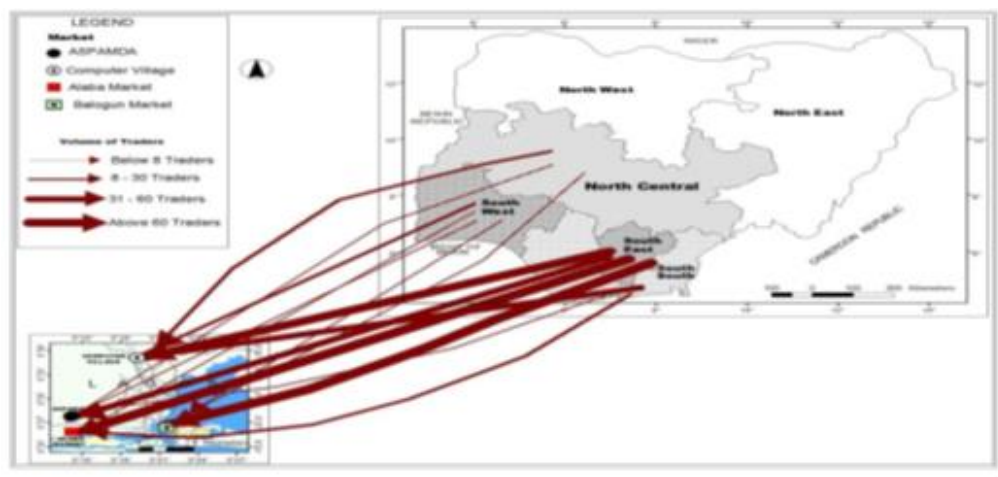


Figure 2: Geo-political zone of the place of origin of traders by market
Source: Afolayan, Ikwuyatum, and Abejide (2011)

Furthermore, the study showed that 84 percent of the traders migrated into Lagos; the majority of international and internal traders, 78.9 and 81.2 percent respectively, are from the South-East geopolitical zone of Nigeria; followed by South-West (10.9%; 11.6%), South-South (8.4%; 5.8%) and North-Central (1.8%; 1.4%). In addition, the study by Afolayan, Ikwuyatum and Abejide (2011) indicated that the pattern of the region of destination of traders on their first international trading trip reflects the high volume of mobility of traders to the Asian sub-continent, as East Asia and West Asia destinations combined accounted for over three quarters (77.1%) of traders on their first trip outside Nigeria.

1.4 Methodology

1.4.1 Model Specification

The study employs a time-series data from 1995–2016, to examine the impact of rural-urban mobility on regional development in Nigeria, which provides the basis for drawing conclusions. This range was chosen because it will enable us to have access to data that cut through these variables. Given the attributes of the models; it becomes expedient for this study to utilise time-series data which are basically secondary. In a bid to analyse the effect of rural-urban mobility on regional development, data were sourced from World Development (WDI) 2016. Rural-Urban mobility will proxy as the urban population while regional development will proxy as Human Development Index (HDI). The HDI was introduced in 1990 as part of the United Nations Development Programme to provide a means of measuring economic/regional development in three broad areas - per capita income, health and education. The HDI monitors differences in the level of advancement of countries over time. Other variables that will be included in this study include population growth rate and gross fixed capital formation. Hence, having outlined all variables for our empirical investigation, we hereby specify the model as follows:

$$\text{HDI} = + \text{UP} + \text{POP} + \text{GFCF}$$

Where;

HDI = Human Development Index

UP = Urban population

POP = Population growth rate
GFCF = Gross fixed capital formation

There is a random error term representing all other variables not specified in the model.

The a priori expectation for this study includes both positive and adverse multiplicative reactions between and among concerned variables.

1.4.2 Model Estimation Techniques

Many macroeconomic variables have a unit root and this leads to misleading results when Ordinary Least Squares (OLS) is used to estimate a model in the levels of the variables. One approach to correct the challenge has been the application of OLS to the differences between the variables. However, this leads to loss of information about the long run. Therefore, testing for co-integration and consequently estimating an Error correction model (ECM) in the case of co-integration is the well-celebrated approach. This follows from the Granger representation theorem of Engle and Granger. This test involves the treatment of the error term in the test above as equilibrium error. It uses this error term to tie the short-run behaviour of the HDI_t to its long-run value.

The error correction dynamic specification is of the general form

$$\Delta HDI_t = \beta_0 + \beta_1 L(\Delta Z) - \beta_2 ECM_{t-1} + \varepsilon_t$$

Where:

Z is a vector of variables that co-integrate with Human development index, L is a general operator, and ECM_{t-1} is the error correction term lagged by one period while ε_t is the error term. This can be expanded to include the vector of variables thus:

$$\Delta HDI_{t-1} = \beta_0 + \beta_1 UP + \beta_2 POP + \beta_3 GFCF + \beta_5 ECM_{t-1} + \varepsilon_t$$

It should be noted that Δ denotes first difference and the coefficient of the ECM_{t-1} provides an estimate of the speed of adjustment.

1.5 Empirical Results and Discussions

A) Descriptive Statistics Results

Information on the descriptive statistics of the variables employed in this study is presented in the table below. It presents the results of the time series attributes of variables available in the model.

Table 1.1

STATISTICS	HDI	UP	POP	GFCF
Mean	14.87838	7.981818	2.590949	10.24981
Median	13.18334	7.600000	2.598115	8.479187
Maximum	38.38656	13.40000	2.692684	16.55520
Minimum	8.709660	5.100000	2.495003	5.458996
Std. Dev.	6.533064	1.634053	0.074469	3.575127
Skewness	2.415245	1.714835	0.015864	0.505223
Kurtosis	8.513473	7.076325	1.419669	1.642644
Observations	22	22	22	22

Source: Author's computation, 2018

B) Unit Root Test

Information on the unit root test at level is presented below;

Table 1.2 showed that all the variables only become stationary at first difference. This can be seen by comparing the test statistics (in absolute terms) of the Augmented-Dickey Fuller and Philip-Peron test statistics with the critical values (also in absolute terms) at 5% level of significance. This result shows the importance of undergoing a co-integration test to establish the long run equilibrium as the variables are not stationary at level.

Table 1.2

Variables	ADF statistics	5%Critical Values	Philip-Perron Statistics	5%Critical Values	Order of integration	Remarks
HDI	/5.139445/	/3.603202/	/4.347888/	/2.963972/	I(1)	Significant
UP	/3.297465/	/3.603202/	/6.034602/	/2.967767/	I(1)	Significant
POP	/5.15366/	/3.603202/	/5.15366/	/2.967767/	I(1)	Significant
GFCF	/2.431217/	/3.603202/	/5.15366/	/2.967767/	I(1)	Significant

Source: Author's computation, 2018

C) Co-integration Test

Information on the co-integration result for the model is presented on the table below. This will be achieved by employing Johansen co-integration test, which produces the likelihood ratio and Max-Eigen value to assert the validity of the long run relationship.

Table 1.3 shows the results for testing the existence of a long-run relationship among the variables used for the study. The trace statistics and max-eigen value test indicate 2 cointegrating eqn(s) at the 0.05 level. This implies that a long run relationship exists among these variables which satisfy the condition for fitting in the error correction model.

Table 1.3

Hypothesized No. of CE(s)	Trace Statistic	Critical Value 0.05	Prob.**	Max-Eigen Statistic	Critical Value 0.05	Prob.**
None *	45.98353	33.87687	0.0012	103.0942	69.81889	0.0000
At most 1 *	37.80744	27.58434	0.0017	57.11063	47.85613	0.0053
At most 2	14.32968	21.13162	0.3386	19.30320	29.79707	0.4713
At most 3	3.237934	14.26460	0.9296	4.973519	15.49471	0.8116

Source: Author's computation, 2018

D) Error Correction Regression Result

The result below revealed that urban population has a negative and significant effect on human development index. This implies that an increase in rural urban migration will have a negative consequence on the urban development. This is due to the notion that majority of the rural migrants are with little or no skill to add to the socio-economic development of the urban region and as such leads to poverty, crime, poor housing, and unemployment among others which are caused essentially by the uncontrolled rural-urban migration in Nigeria. Furthermore, increase in population growth rate revealed a negative and significant effect on human development index. This could be because of the growing population rate of people without skills and technical know-how to add to the growth of the region and as such have a negative consequence for the

regional development. However, gross fixed capital formation revealed a positive and significant effect on human development index. This means a rise in the investment rate in a region could lead to the region's growth. A typical example is Lagos State where private and government investment is the driver of development with private investment covering over 60 percent rate.

The coefficient of adjusted R-squared of 0.74 indicated that 74% of the total variation in the dependent variable is explained by the variables employed during the period of this study. This implies that the independent variables employed in this study have implication for the dependent variable position in Nigeria during the period of this study. Also, the Durbin Watson statistic of approximately 2.38 shows no presence of serial correlation, while the Probability of F statistic of 0.04 indicates that the overall independent variables are statistically significant. Finally, the correctness of the sign of the Error Correction Model and its significance at 5% level reveals that the model adjusts speedily to long-run dynamics. The coefficient of the ECM of -0.789676 suggests a moderate adjustment process. About 79 percent of the disequilibrium of the past year, is adjusted back to the long-run equilibrium in the current period.

Table 1.4: Dependent Variable: D (HDI)

Variables	Coefficient	Standard error	T- statistics	Probability
C	8.282579	3.537362	2.341457	0.0287
D(URP)	-0.182568	0.083214	-2.193956	0.0004
D(GFCF)	0.078276	0.016121	4.855702	0.0000
D(POP)	-0.658706	1.597783	2.863071	0.0009
ECM(-1)	-0.789676	0.333165	-2.370225	0.0307
R- squared	0.893335			
Adjusted R ²	0.742521			
Durbin-Watson stat	2.382092			
F-statistic	142.2478			
Prob(F-statistic)	0.035412			

Source: *Author's computation, 2018*

E) Conclusion and Recommendation

Migration globally is on the increase, as more and more people are either moving into the existing urban spaces and/or congregating into evolving population concentrations or new urban centres. Though rural-urban migration and natural increase are determinants of regional development, there are silent indirect factors that influence the process of migration and pull people into the urban space. These factors include the quest for education, accessing health care and social conflict. The ongoing transformation of rural economies into modern societies and/or urbanisation is significant and most visible in developing countries, such as Nigeria, with a large rural population. The study found that an increase in rural to urban migration will have a negative consequence on urban development. This is due to the notion that many rural migrants, are with little or no skill to add to the socio-economic development of the urban region and as such leads to poverty, crime, poor housing, and unemployment among others which are caused essentially by the uncontrolled rural-urban migration in Nigeria.

The study recommends that there is need to check rural-urban migration by developing development policies that provide for equitable development between rural and urban centres policies that support infrastructure, industrialisation, job creation, rural renewal, focus on agriculture with mechanisation which will help retain the rural-based people. Furthermore, focus on education and vocational training in rural communities to skill up residents, special rural development funds to help speed up the level of development in the region; doing this will help solve the problem of development bias which causes the disparity between urban and rural region. Furthermore, these policies would go a long way in reducing negative consequences of urbanisation such as poverty, crime, poor housing, and unemployment among the legion of challenges of urbanisation, caused essentially by the uncontrolled rural-urban migration in less developed country like Nigeria. Various levels of government (Federal, State, Local) has a role to play in keeping the balance between rural and urban region. The difficulties arising from the nexus migration, urban mobility and regional development notwithstanding, they are vital flows and interaction necessary for socio-economic development.

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CHAPTER

2

ASSESSMENT OF LOGISTICS CHALLENGES IN SEARCH AND RESCUE OPERATION BY EMERGENCY MANAGEMENT AGENCIES IN LAGOS STATE

Tijjani A.O., Odumosu A.O., Adewunmi A.S. & Obi P.

Abstract

Lagos State is the second most populous country in Nigeria (Census, 2006), the former Federal Capital of Nigeria and the commercial and industrial base of the country and this makes the State to be highly full of activities. However, with this high level of activities and continuous expansion, infrastructural and human expansion; the State has been experiencing some level of emergency such as building collapse, fire disaster, flooding, etc. which have led to wanton destruction of lives and properties but with efforts from the emergency management agencies in the State making frantic efforts to mitigate against the impact. This study examine the activities of three emergency management agencies: Lagos State Emergency Management Agency (LASEMA), Federal Fire Service Lagos State and Lagos State Fire Service on the logistics challenges they do face in search and rescue operations in Lagos Metropolis. The study uses both primary and secondary data from the agencies. The following findings were made The study revealed that the major disaster or incidents that the emergency agencies attended to are fire outbreak/explosion, building collapse, air crashes, deep water rescue and soak away rescue. However, fire outbreak constitutes the major incident that does happen in the metropolis followed by building collapse. In addition, the study revealed that major logistics challenges being faced by the emergency management agencies are the issue of traffic jam or traffic congestion while on the way to disaster sites and also accessibility problems because of barriers and gates in many areas of the Lagos Metropolis; Furthermore, the study revealed the inadequacy in man power and logistics working equipment for the emergency management agencies alongside obsolete equipment. Also, the

study revealed that there is high level of false alarm from the general public which do make them have setbacks and also the call alert to the emergency management agencies do come late and lastly, there are issues of low public awareness about mitigating against disaster and the issue of crowd control when disaster happen is a rampant and worrisome issue. Thus, the following recommendations were made; there is urgent need to enforce safety standard in activities of the citizen in order to minimise fire outbreak and collapse of buildings which will automatically reduce the death, injuries and wanton destruction of properties. Government needs to improve on the traffic situation of the city and reduce street gates and barriers.

Keywords: Disaster, Emergency, Incidents/Accidents, Logistics, Responses, Search and Rescue.

1.1 Background of the Study

Emergency management (or disaster management) is the discipline of dealing with, and avoiding risks, (Alexander, 2002). It is a discipline that involves preparing for disaster before it occurs, disaster response (e.g. emergency evacuation, quarantine, mass decontamination, etc.), as well as supporting, and rebuilding society after natural or human-made disasters have occurred. In general, any emergency management is the continuous process by which all individuals, groups, and communities manage hazards in an effort to avoid or ameliorate the impact of disasters resulting from the hazards. Actions taken depend in part on perceptions of risk of those exposed.

Jaffin (2008), effective emergency management relies on thorough integration of emergency plans at all levels of government and non-government involvement. Activities at each level (individual, group, community) affect the other levels. It is common to place the responsibility for governmental emergency management with the institutions for civil defense or within the conventional structure of the emergency services. In the private sector, emergency management is sometimes referred to as business continuity planning.

According to Buchanan (2000) Emergency management is one of a number of terms which, since the end of the Cold War, have largely replaced Civil Defense, whose original focus was protecting civilians from military attack.

Modern thinking focuses on a more general intent to protect the civilian population in times of peace as well as in times of war. Another current term, Civil Protection is widely used within the European Union and refers to government-approved systems and resources whose task is to protect the civilian population, primarily in the event of natural and human-made disasters.

Hence, emergency management has different and inter-related phases in which one of the major one is response phase termed search and rescue. Thus, the response phase includes the mobilisation of the necessary emergency services and first responders in the disaster area. This is likely to include a first wave of core emergency services, such as firefighters, police and ambulance crews. When conducted as a military operation, it is termed Disaster Relief Operation (DRO) and can be a follow-up to a Non-combatant Evacuation Operation (NEO). They may be supported by a number of secondary emergency services, such as specialist rescue teams.

A well-rehearsed emergency plan developed as part of the preparedness phase enables efficient coordination of rescue where required, search and rescue efforts commence at an early stage. Depending on injuries sustained by the victim, outside temperature, and victim's access to air and water, the vast majority of those affected by a disaster will die within seventy two hours (72 hours) after impact (Walker, 1991).

Emergency managers are trained in a wide variety of disciplines that support them throughout the emergency life-cycle. Professional emergency managers can focus on government and community preparedness (Continuity of Operations/Continuity of Government Planning), or private business preparedness (Business Continuity Management Planning). Training is provided by local, state, federal and private organisations and ranges from public information and media relations to high-level incident command and tactical skills such as studying a terrorist bombing site or controlling an emergency scene (Jaffin, 2008).

1.2 The Problem

Various disasters like earthquake, landslides, volcanic eruptions, fires, flood and cyclones are natural hazards that kill thousands of people and destroy billions of dollars of habitat and property each year. The rapid growth of the world's population and its increased concentration often in hazardous environment has escalated both the frequency and severity of natural disasters. However, in recent times, Nigeria have been experiencing huge loss of human lives and properties, but not as a result of natural disaster like earthquake, Tsunami, flood, land slide as it is being experienced in some Asia and South American countries. Rather the causes of the loss of lives and properties are linked to human-made disaster of fire outbreak, building collapses, road crashes, air crashes, boat mishaps, pipeline explosions, pipeline vandalisation, political, social and religious civil disturbance, etc.

When disaster strikes; either natural or man-made in any location in Nigeria it is instructively for disaster management agencies like National Emergency Management Agency (NEMA), State Emergency Management Agency (SEMA), Civil Defence Corps, Fire Service, the Military, the Police, the Red Cross, Medical Experts, etc, to respond through search and rescue efforts and stop of the spread of the disaster where applicable in order to maximally safes lives, secure properties and evacuate both the dead and wounded victims.

Lagos State is the second most populous country in Nigeria (Census, 2006), the former Federal Capital of Nigeria and the commercial and industrial base of the country. This makes the State to be highly full of activities. However, with this high level of activities and continuous expansion, infrastructural and human expansion; the State has been experiencing some level of emergency such as building collapse, fire disaster, flooding, etc. which have led to wanton destruction of lives and properties but with efforts from the emergency management agencies in the State making frantic efforts to mitigate against the impact.

Thus, this study tends to appraise the performance of the agencies in the discharge of mandates and challenges vis-à-vis the provision of logistics equipment for mobility in order to rescue victims in distress or prevention of occurrence of disaster.

1.3 Aim and Objectives of the Study

1.3.1 Aim of the Study

The aim of the study is to assess the logistics process of the emergency management agencies in disaster management with a view to examining the logistics problems facing the organisations during operations during search and rescue operations.

1.3.2 Objectives of the Study

- i. To examine the trend of various incidents of disaster attended to by the emergency management agencies.
- ii. To Assess the working logistics and equipment provided for the search and rescue process during disaster management operation by the agencies.
- iii. To examine the various logistics problems facing smooth search and rescue operation by the agencies.

1.4 Scope of the Study

There are many agencies that are involved in emergency response in Nigeria and in the State in particular and they are National Emergency Management Agency (NEMA), State Emergency Management Agency (SEMA), Civil Defence Corps, Fire Service, the Military, the Police, the Red Cross, Medical Experts, but the scope of this study centred on these three agencies: Lagos State Emergency Management Agency (LASEMA), Federal Fire Service Lagos State and Lagos State Fire Service. Consequently, the study covered their activities within the Lagos Metropolis.

2.0 Material and Methodology

Both primary and secondary data were sourced from Lagos State Emergency Management Agency (LASEMA), Federal Fire Service Lagos State and Lagos State Fire Service through the use of questionnaire and document sourcing of secondary data. Thus, the data sourced and used for this study are: Data on the search and rescue operations the three emergency management agencies have responded to from 2011 to 2015; Data on the list of Search And Rescue (Emergency Response) Logistics Equipment of the Agencies; Data on the list of search and rescue (Emergency Response) logistics equipment and

manpower available; Data on Locations of the operational offices of agency within the Lagos Metropolis; Data of logistics operational challenges in search and rescue operations, etc.

3.0 Results Presentation and Discussion

The analysed data and discussion of results were presented in tabular form below as follows:

Table 3.1: The Activities Performed by the Emergencies Agencies in Lagos State

S/N	Lagos State Fire Service	Federal Fire Service	Lagos State Emergency Agency
1.	Firefighting operations.	Firefighting operations.	All forms of emergency/disaster management in the state.
2.	Rescue operation from domestic well, train derailment accident.	Saving of lives.	Search and rescue operation/disaster recovering.
3.	Fire prevention duties.	Fire prevention duties.	Early warning/mitigation of disasters/emergencies in the State.
4.	Public Enlightenment campaign.	Rendering of humanitarian services.	Response to emergency and coordination of all emergency stakeholders in the State.
5.	-	Saving of properties.	Rehabilitation of refugees in the State.

Sources: Lagos State Fire Service; The Federal Fire Service and Lagos State Emergency Agency, 2016.

Table 3.1 Shows the various activities carried out during search and rescue operation by Emergency Agencies in Lagos State: Lagos State Fire Service, the Federal Fire Service and Lagos State Emergency Management Agency. Result shows; Lagos State Fire Service operations revolves around rescue operation from domestic well, train derailment accident and public enlightenment campaign. Federal Fire Service renders humanitarian services, such as, saving of lives and properties, firefighting operation to the Lagos State Fire Service and the Lagos State Emergency Agency coordinates all emergencies stakeholders in the State; rehabilitation of refugees in the State and also carry out, disaster recovery during search and rescue operations.

Table 3.2: Yearly Occurrence of Emergency Incidents in the Lagos Metropolis from 2011-2015

Year	Fire Outbreak/ Explosion	Collapsed Building	Plane Crash	Deep Well Rescue	Soak Away Rescue	Total	%
2011	17	6	-	3	5	31	19
2012	22	8	-	6	2	38	24
2013	12	7	1	2	1	23	14
2014	23	5	-	8	5	41	26
2015	18	3	-	3	4	28	17
TOTAL	92	29	1	22	17	161	100
%	57	17	1	14	11	100	

Source: Author's Compilation 2016

Table 3.2 revealed the types of disaster that are peculiar to the Lagos Metropolis and which the emergency agencies responded to between 2011 and 2015 in Lagos Metropolis of the Lagos State. According to the Table, fire outbreak/explosion constitute the major emergency in the study area with 57% followed by building collapsed with 17% while deep well rescue and Soak away emergency constitute 14% and 11% respectively. Thus, the two major emergency in the study are fire outbreak and the collapse of buildings.

Table 3.3: The Press Release from the Ministry of Home Affairs Lagos State on the Record of Fire Incidents and Building Collapsed from 2011 to 2015

S./no	Incident	Number of Occurrence
1	Fire Outbreak Calls	6,541
2	Death from Fire Outbreak	550
3	Rescued Fire Outbreak Victims	498
	Collapsed Building Calls	397
4	Collapsed Building	59
5	Total Emergency Calls	8,278
6	False Emergency Calls	1,294 (15.6%)

Source: <http://nationalmirroronline.net/new/550-killed-in-lagos-fire-disaster-in-five-years/>

Table 3.3 shows the summary of the press release of the Lagos State Ministry of Home Affairs that control the emergency response agencies of the State on

the trend of fire outbreak and building collapse in the Lagos Metropolis from 2011 to 2015. According to Table 3.3; 59 building collapse were recorded while 550 victims died from fire incidents and 498 victims were rescued from the scenes of fire incident. Furthermore, and more importantly, the Table revealed the rate of emergency calls received during the period which amounted to 8,278 while 15.6% of the calls were false calls.

Table 3.4: General Challenges during Search and Rescue Operation by the Emergencies Agencies in Lagos State

S/N	Lagos State Fire Service	Federal Fire Service	Lagos State Emergency Agency
1.	False and Late calls	Communication challenges	Hoax or false alarm
2.	Improper description of the scene of fire	Distance from station to the scene of emergency	Improper description of the scene
3.	Traffic jam	Inadequate funding	Traffic jam
4.	Hoodlums attack	Lack of equipment	Lack of equipment
5.	Insufficient manpower	Insufficient manpower	Crowd control
6	Street gates and barriers preventing accessibility	Street gates and barriers preventing accessibility	Street gates and barriers preventing accessibility

Sources: Lagos State Fire Service; Federal Fire Service and Lagos State Emergency Agency, 2016.

Table 3.4 revealed the general challenges that the emergency agencies are facing in the course of going for search and rescue operation when there is emergency situation within the city. The agencies have most common challenges that range from false or late emergency calls, traffic flow challenges along their routes, hoodlums' attacks, street gates and barriers preventing accessibility and most importantly lack of sufficient manpower and rescue equipment. Improper description of the scene of emergency, the distance interval between the station and the scene of incident, crowd control; gathering of people at the scene also prevent accessibility from the emergency agencies to operate effectively.

Table 3.5: The Logistics Challenges During Search and Rescue Operation by the Emergencies Agencies in Lagos State

S/N	Lagos State Fire Service	Federal Fire Service	Lagos State Emergency Agency
1.	Inadequate men (Fire Officers)	Traffic congestion	Traffic control
2.	Inadequate equipment	Inadequate facilities/equipment	Inadequate facilities
3.	Inadequate fire stations	Poor access to the scene of emergency	Poor access to scene of emergency
4.	Inadequate fire Hydrants in public places and high rise building	Inadequate fire hydrants in public places	Inadequate station
5.	Poor funding	Poor funding	Poor funding

Sources: Lagos State Fire Service; Federal Fire Service and Lagos State Emergency Agency, 2016.

Table 3.5 revealed the logistics challenges that the emergency agencies are facing in the course of going for search and rescue operation which hinders smooth search and rescue operation when on operations within the city. The agencies have almost similar logistics challenges with traffic congestion as a major problems and also inadequate funding for manpower and procurement of needed modern equipment.

Table 3.6: List of Search and Rescue (Emergency Response) Logistic Equipment owned by the three Emergency Management Agencies

S/N	Names of the equipment	Lagos State Fire Service (number of equipment required)	Federal Fire Service (Number of equipment required)
1	Tripod rescue hauler	Have 2 modern/Required 15	-
2.	Thermal image camera	Have 3 modern/1 Required 5	-
3.	Breathing apparatus	Have 30 modern/ Required 30	-
4.	Rescue line	Have 50 obsolete/ Required 50	-
5.	Personal protective clothing	500 modern/ Required 500	
6.	Extrication tools i. Expanding tools ii. Cutting tools iii. Lifting tools	Modern Have 3/ Required 15 Have 3/ Required 15 Have 3/ Required 15	-
7.	Search light	15/15	Have 0/ Required 18
8.	Multipurpose appliance	-	Have 1 modern/ Required 09
9.	Hydraulic platform	-	Have 1 obsolete/ Required 09
10.	Turn table ladder	-	Have 1 obsolete/ Required 09
11.	Snorkel	-	Have 2 modern/ Required 09
12.	45ft extension ladders	-	Have 28 modern / Required 28
13.	First floor ladder	-	Have 18 modern/ Required 18

Sources: Lagos State Fire Service and Federal Fire Service, 2016

Table 3.6 revealed the available logistics equipment of the Lagos State Fire Service and Federal Fire Service, Lagos, the condition of the equipment and the gap analysis of the logistics equipment from the agencies. According to the Table, the two fire agencies have some equipment even though not in the right quantity required while some basic equipment are lacked by the agencies.

Table 3.7: Suggested Strategies for Search and Rescue Operation by Emergency Management agencies in Lagos State

S/N	Lagos State Fire Service	Federal Fire Service	Lagos State Emergency Agency
1.	Giving appropriate information by public or occupant.	Adequate Funding.	Adequate communication between locals, emergency stakeholders during emergency and disaster occurrences.
2.	Good crowd control at the scene.	Sufficient manpower.	Cooperation and synergy between relevant emergency respondents and locals (host community).
3.	Provision of adequate exits or escape routes in buildings.	Provision of adequate exits.	Provision of adequate exits and escape routes.
4.	Provision of adequate modern rescue equipment.	Adequate equipment.	Deployment of modern urban search and rescue equipment.
5.	Proper emergency management plan.	Proper emergency management plan.	Collaborative efforts between relevant stakeholders.
6.	Synergy among all emergency response agencies.	-	-

Sources: Lagos State Fire Service; Federal Fire Service and Lagos State Emergency Agency, 2016.

Table 3.7 revealed the suggestions of the three emergency management agencies that were studied on how their search and rescue operation can be enhanced and be made more efficient for optimal saving of lives and properties when disaster strikes within the city. The emergency agencies advocate for adequate funding of their activities in terms of additional staff and sufficient and modern equipment. Furthermore, there is urgent need to educate the general public on how there can be reduction in the occurrences of disaster while there is need for serious enlightenment on the side of the general public in terms of crowd control when disaster happens because this does hinder the smooth search and rescue operations.

4.0 Findings

The study revealed that the major disaster or incidents that the emergency agencies attended to are fire outbreak/explosion, building collapse, air crashes, deep water rescue and soak away rescue. However, fire outbreak constitutes the major incident that does happen in the metropolis followed by building collapse.

In addition, the study revealed that major logistics challenges being faced by the emergency management agencies are the issue of traffic jam or traffic congestion while on the way to disaster sites and also accessibility problems because of barriers and gates in many areas of the Lagos Metropolis.

Furthermore, the study revealed the inadequacy in man power and logistics working equipment for the emergency management agencies alongside obsolete equipment.

Also, the study revealed that there is a high level of false alarm from the general public which do make them have set backs and also the call alert to the emergency management agencies do come late.

Lastly, the issue of low public awareness about mitigating against disaster and the issue of crowd control when disaster happens is a rampant and worrisome issue.

5.0 Recommendations

The following recommendations were made after the study

- i. There is urgent need to enforce safety standard in activities of the citizen in order to minimise fire outbreak and collapse of buildings which will automatically reduce the death, injuries and wanton destruction of properties.
- ii. Government needs to improve on the traffic situation of the city and reduce the street gates and barriers.
- iii. Governments at State and Federal level urgently need to increase funding of the emergency management agencies which will translate to increased man power and acquiring of more equipment, then the boosting of the morale of the staff too.

- iv. There is urgent need for education and enlightenment on the side of the citizen on how to organise themselves at search and rescue sites without constituting bottle necks to the operation of the emergency management agencies.

6.0 Conclusion

Occurrence of disasters either natural or man-made do lead to wanton destruction of lives and properties in any society where it strikes. Thus, it automatically retards the growth and development of the society. However, in Nigeria, the major disaster being experienced are man-made which can be prevented or greatly minimised, so all efforts should be geared towards ensuring safety standard enforcement in all activities of the society.

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CHAPTER

3

AN EVALUATION OF CLIMATE-RESILIENT URBAN TRANSPORT SYSTEM USING CLIMATE CHANGE SCENARIO IN LAGOS METROPOLIS

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Abstract

The objective of this project is to provide transit professionals with information and analysis relevant to adapting transportation assets and services to climate change impacts. Climate impacts such as thermal discomfort and flooding will hinder agencies' ability to achieve goals such as attaining a state of good repair and providing reliability and safety. The report examines anticipated climate impacts on Lagos transit and current climate change adaptation efforts by domestic and foreign transit agencies. It further examines the effect of climate change on transport facilities. The report provides examples of adaptation strategies and discusses how transit agencies might incorporate climate change adaptation into their organisational structures and existing activities such as asset management systems, planning, and emergency response. By focusing specifically on public transportation, and the unique assets, circumstances, and operations of that mode, the report supplements transportation sector wide studies whose scopes did not allow for more in-depth treatment of transit.

Keywords: *Lagos Transit, Climate Change, Adaptation, Thermal Discomfort, Flooding.*

1.0 Introduction

Cities are sensitive to many impacts, especially extreme weather events. Due to the concentration of population, physical assets, and socio-economic activities, cities play an essential role in providing infrastructure to citizens. Many climate impacts are accelerated or accentuated in built up areas which can create unique microclimates in terms of temperatures, wind and precipitation (e.g. urban heat island effect) (Giuseppe *et al.*, 2011). Transport is linked to all aspects of urban life: leisure, education, business and industry. Ensuring a resilient urban transport system is therefore necessary to avoid large and costly disruptions of urban life. Transportation and land use have become increasingly linked with climate change adaptation and mitigation, or managing the reduction of greenhouse gases (GHG). Transportation is typically viewed as one of the “causes” of climate change due to the sectors contribution to the total carbon dioxide emissions released in the United States (Ewing *et al.*, 2008).

As scientific evidence on climate change continues to support the relationship between anthropogenic activities and global warming, greenhouse gas concentrations continue to rise at a rate of more than 2 parts per million each year (Stern, 2006). Currently the United States is the largest emitter worldwide, with transportation accounting for one third of carbon dioxide emissions (Ewing *et al.*, 2008). Transport energy use and carbon emissions are projected to be higher than the current level by 2030 as a result of the continually rising demand. Transportation is one of the largest emitters of greenhouse gases in the United States contributing to 28% of all emissions, which converts to roughly 6% of all global carbon dioxide emissions (Schmidt and Meyer, 2008). Based on projections, this contribution will increase to 36% by the year 2020 (Greene and Schafer, 2003). The most damaging impacts of a changing climate on road vehicles and driving conditions will be increase in temperature and more extreme rainfall. Increase in temperatures are likely to lead to: an increase in driver discomfort and exhaustion, leading in turn to a greater risk of accidents; use of more costly and more energy intensive air conditioning systems; melting tyres or wearing tread; and overheating of equipment such as diesel engines. Increased instances of extreme rainfall (and consequent flooding) will result in more frequent occurrences of difficult driving conditions (and a higher risk of accidents), or circumstances where driving becomes impossible (Giuseppe, 2011). Climate change will affect how people move around.

Many transport decision-makers in developing countries are already confronted with extreme weather events, such as flooding, subsidence and storms, all of which are expected to increase with climate change. In the worst case, transport systems may not be able to recover between such events, resulting in exponential damages. Hence, building a climate-resilient urban transport system is vital to (1) Safeguard transport infrastructure and its embedded value; (2) Ensure reliable mobility and economic vitality/ development; and (3) Guarantee the health and safety of urban residents. Climate considerations play a key role in the delivery and resiliency of transportation services in the face of changing weather patterns. Although the transport sector lies at the heart of urban conglomerations, little attention has been paid specifically to the vulnerabilities of the urban transport system. Nevertheless, a few studies on the overall impacts of climate change on transport have emerged in recent years in Europe and North America (Eichhorst, 2009). The aim of this research is to evaluate climate-resilient urban transport system and comfort through studying changes in temperature and rainfall in Lagos metropolis between 1971 and 2013 using GIS and statistical technique. The objectives and scope of this project is to assist Lagos transit in determining the potential vulnerability and risk, as well as projected climate impacts on Lagos transit stationary assets that include roads, rails, structures, and buildings – and to develop cost effective resilience strategies so Lagos transit can protect these assets from negative impacts in the future. Lagos transit can also use this information to protect its rolling stock (trains, buses, etc.) from severe weather. The assessment activities in this study provides information for Lagos transit leadership to facilitate planning over the five, ten, and twenty - year horizons.

2.0 Methodology

The data acquired includes: (1) Digital base maps of roads and administrative area; (2) USGS 90m SRTM Digital Elevation Model (DEM); (3) Meteorological parameters (includes Rainfall and Temperature); (4) Flood stages from gauging stations; and (5) Field surveys and Ground trothing of study area. Climate scenarios were used to determine the meteorological parameters needed to predict past, present and future temperature and rainfall parameters. Rainfall and Temperature was acquired from **HadCM3** in excel format from the Model Inter-Comparison Project (CMIP) IPCC 4th Assessment Report for the SRES A1B (business as usual) scenario for baseline period (of

1971-2013). This model was obtained in excel format and imported into ArcGIS 10 environment. The data used in this study are from the contribution of the **HadCM3** (Run 1) and was used because of large coverage of the study area and accessibility. The model starts its integration from the ‘20th Century Climate in Coupled Model’ (20C3M) run, in which the level of anthropogenic forcing is based on historical data of the late 19th century through the 20th century. The total precipitation distribution over the region between 0°–15°E and 2.5-12.5°N from which Lagos metropolis was extracted using GIS technique between longitude 2° 42'-3° 42' E and between latitudes 6° 22'-6° 42' N (Figure 1). Climate impact was assessed using climate statistical downscaled model anomalies and trends using IPCC emission scenarios SRES-A1B. The time series was used to study the sequence of observation made at equal interval of time between 1971 and 2013 in the regional distribution of secular trends. Inter-Annual (temporal) Temperature and Rainfall Variability was computed by subtracting the observed mean from sequences of observations; this was used to define the amount of variance about the mean.

The **Temperature Humidity Index (THI)** will be used to investigate Human Comfort Index in the study area. *THI* was derived from Temperature (°C) and Relative Humidity (%) with the following equation (Nieuwolt, 1977):

$$THI = 0.81T_a + \frac{(RH \times T_a)}{500} \dots\dots\dots(3.)$$

Where, *THI*= Temperature Humidity Index (°C); *T_a*=Air Temperature (°C); *RH*=Relative Humidity; 0.8 and 500 are constant factors for wet and dry climate regions as stated in Bach (1972); Ogunsoye and Prucnal-Ogunsoye (2003). According to Paulev & Zubietta-Calleja (2011) and Ayode (2008). *THI* comfort zone varies between 19 and 26°C. At 19°C represent human discomfort due to cold stress (cold environment) and values above 26°C represent human discomfort due to hot stress (hot environment). Annual Flood stages acquired from the Federal Ministry of Transport Inland Waterways Division, Lokoja, Nigeria was used to simulate flooding which is similar to the yearly rainfall. The Digital Elevation Model (DEM) data was used for Triangulated Irregular Network generation in ArcGIS 10 as required in GeoRAS environment in order to prepare data sets required as input to the HEC-RAS simulation. For HEC-

RAS Model Application the following steps were adopted: - **(a) Pre GeoRAS application** was used for creating required data sets for creating import file to HEC-RAS. Stream centerline, main channel banks (left and right), flow paths, and cross sections were created. 3D layer of stream centerline and cross section was also created. Thus, after creating and editing required themes, RAS GIS import file was created. **(b) HEC RAS application** is the major part of the model where simulation is done. The import file created by HEC-GeoRAS was imported in Geometric Data Editor interface within HEC-RAS. All the required modification, editing was done at this stage and the flood discharge was entered in steady flow data. After finishing simulation, RAS GIS export file was created. Then after, water surface profiles were computed. The result was exported creating the RAS GIS export file. **(c.) Post RAS application** (and Mapping) includes: (1.) Import RAS GIS export file; (2.) Generate water surface TIN and (3.) Generate Floodplain and depth grid. **(c.) Post-Processing** (Post RAS) facilitates the automated floodplain delineation based on the data contained in the RAS GIS output file and the original terrain TIN. The flood inundation depth of 1 and 2m (Caution), 3m (Warning level) was used as benchmark because this is regarded as condition when water overflows the riverbanks and water enters the streets, residents and floodplains downstream, this was used to ascertain the impact of rainfall induced flooding on transit assets.

3.0 Results and Discussion

3.1 Historical Rainfall Observations, Trends and Distribution in Lagos Metropolis

The annual rainfall of the Lagos metropolis was estimated using rainfall records in the time period between 1971 and 2013 (Figure 2A). The annual rainfall which was estimated for Lagos metropolis was relatively higher than the annual rainfall in other surrounding areas and this was due to the fact that area is coastal cities bordering the Atlantic Ocean and the influenced by its nearness (or location) to the equator and the Gulf of Guinea. It is affected by atmospheric interactions in which the Inter - Tropical Convergence Zone (*ITCZ*) is a controlling factor. Rainfall statistics was computed and result reveals that in Lagos metropolis a mean of 9.408 mm/day and median of 9.36 mm/day and mode of 8.19 mm/day was observed between the study years. With a variance

of 0.377 mm/day and standard deviation of 0.614 mm/day this indicates that mean rainfall is sufficient to support flooding and erosion activities with a fairly strong relationship (1.7%) observed over the years between 1971 and 2013 in Lagos metropolis (Figure 2A). And minimum of 8.19 mm/day and maximum of 10.63 mm/day was also observed in the study area with a total of 404.56 mm/day of rainfall for the study years. The inter-annual temporal variability of rainfall is shown in Figure 3b and represents yearly averaged values. In general, an increase in variability was observed between 1971 and 2013 (1.7%), with a fairly strong variability and increase occurred at the end of the 19th century for the study area between 1976 and 1995. Between 2001-2003 and 2010-2013, an increase in variability was observed, with maximum values being reached at the present times for the all observatories (Figure 2B). The annual rainfall variability is significant over the study area and trend shows that rainfall is high and increasing with positive relationship through the period in question. The study area is under pressure from climate stresses and is highly vulnerable to the impacts of climate change due to increase in mean rainfall observed across the period of study, climate models project that these extremely heavy precipitation events will increase by 1.7%. Increased instances of rainfall (and consequent flooding) will result in more frequent occurrences of difficult driving conditions (and a higher risk of accidents), or circumstances where driving becomes impossible and climate change will affect how people move around in Lagos metropolis.

3.2 Historical Temperature Observations, Trends and Distribution over the Lagos Metropolis

The annual temperature of the Lagos metropolis was estimated using temperature records (Figure 3) in the time period between 1971 and 2013. The annual temperature was estimated (Figure 2) and was found to be relatively higher than the surrounding areas outskirts of Lagos and this was due to changes in surface albedo in the study area. Temperature values are lower between 1975 and 1999 and higher between 2000 and 2013. Generally, temperature statistics was computed and result reveals that in Lagos metropolis a mean of 27.54⁰C and median of 27.31⁰C and mode of 26.36⁰C was observed between the study years. With a variance of 0.535⁰C and standard deviation of 0.73⁰C, this indicates that mean temperature has a strong relationship (57%) observed over years between 1971 and 2013 in Lagos metropolis (Figure 3A). And minimum

of 26.36 °C and maximum of 28.79 °C was also observed in the study area. The inter-annual temporal variability of the rainfall is shown in Figure 3B and represents yearly averaged values. The application of this method shows the existence of important changes in the moving mean for all the series under study. In general, an increase in variability was observed between 1971 and 2013, with a fairly strong variability and an increase occurred at the end of the 19th Century for all the studied station between 1976 and 1995 (Figure 3A). And between 2000 and 2013 a general increase in variability (22%), with maximum values being reached at the present times for Lagos and same for middle of the 20th Century was observed. Also, the impact of climate change on road vehicles and driving conditions will increase with temperature. Increases in temperatures are likely to lead to: an increase in driver discomfort and exhaustion, leading in turn to a greater risk of accidents; use of more costly and more energy intensive air conditioning systems; melting tyres or wearing tread; and overheating of equipment such as diesel engines. The study area is under pressure from climate stresses and is highly vulnerable to the impacts of climate change due to increase in mean temperature observed across the period of study, climate models project that these extreme temperature events will increase by 57%.

3.3 The Resilience of Urban Transport Infrastructures to Climate Change in Lagos Metropolis

This study on resilience will help transit agencies understand how changes in climate will impact on transit assets. This information is being used by transportation decision makers to assess the vulnerability of their assets to climate change impact. Transport facilities and roads are already experiencing these impacts and are already seeing which assets are at risk. They provide a basis for transport facilities and users to identify and prioritise individual assets affected by the change in climate. The flood water extent and depth (Figure 4) was generated and mapped, the water level intrusion shows the effect of flooding on roads infrastructure. The effects of flooding in the study area include: (1) inundation of some low-lying riverside areas; (2) higher flooding in areas currently at risk of flooding; and (3) expansion of areas being exposed to flooding (Figure 4). The Map (Figure 6 and 7) displays affected corridors and Bus assets route in relation to these known areas of flooding or potential flooding. The results conclude that the frequency of heavy precipitation and

flood events has increased over Lagos metropolis during the late 20th Century, and that it is more likely than not that there has been a human contribution to this trend which are indirect impacts of climate change on flood which are related to low laying topography and urbanisation caused by climate change and associated adaptation actions. The value for affected roads type and Local Government Area (LGA) are shown in Figure 7a. Service roads is the most affected road types connecting residential areas, businesses and homes, this further stress the impact of flood on socio-economic activities and comfort of Lagosians. Most affected LGA includes Lagos Island, Eti Osa and Amuwo Odofin LGA (Figure 7b). Urban areas which form the core of transit services tend to be hotter than surrounding areas. Dark rooftops and asphalt-paved surfaces, which absorb and reradiate heat, combine with less tree canopy coverage to create the “urban heat island” phenomenon. Heat islands exacerbate the effects from thermal discomfort. Those most vulnerable to thermal discomfort are the road users and low-income populations without air conditioning in inner city areas, and are also disproportionately transit-dependent, increasing the importance of reliable, air-conditioned transit service to move people to cooling centres. The Thermal Humidity Index (*THI*) values reveal an increase in discomfort in the study area by 66% which indicates a very strong relationship (Figure 5). The result reveals that 0.98 probability chance of occurring in *THI* affected areas and transport facilities and infrastructure, and 0.407 probability chance of occurring in other areas. An increase extreme *THI* was observed in all transport road type (Figure 7c and d). Figure 8 and 9 shows a detailed view of flood prone areas and thermal discomfort effect on road users in Lagos metropolis.

4.0 Conclusion and Recommendations

In conclusion, Lagos metropolis transit has already been experiencing and will continue to experience weather related impacts. Lagos metropolis transit can expect more frequent service disruptions over the next 20 years and must consider how the weather is affecting the state of good repair for its assets. The next immediate step for Lagos transit is to prioritise its critical assets and determine which resilience strategies it wants to implement. This report provides a regional overview and can be used as a screening tool for Lagos transit to identify its specific critical assets and take appropriate measures to reduce its vulnerability to extreme weather. There are four broad categories of

overall adaptation strategies: maintain and manage, strengthen and protect, enhance redundancy, and abandon infrastructure in extremely vulnerable areas. Strategies for responding to flooding in particular include moving vehicles and other mobile assets out of harm's way, preventing water incursion, improving drain maintenance and debris clearance, increasing pumping capacity, and strengthening or raising bridges. Capturing storm water with natural ecosystem approaches also reduces flooding: City's bus transit system includes rain gardens to collect storm water. Strategies for responding to high heat include the use of shade shelters, efficient air conditioning, heat-resistant or heat-reflective materials, and heat management plans for worker and customer safety. During extreme weather events, effective communications with transit customers manages expectations, provides critical safety information, and allows travellers to adjust their schedules. Some adaptation strategies will pay for themselves even without projected climate impacts and have multiple benefits. The prioritisation process for transportation investments needs to consider not only the potential intensity of climate impacts, but the condition and vulnerability of existing facilities and the relative importance of those facilities to overall system performance. By weighing all of these factors, transportation managers can direct resources to the most necessary and cost-effective actions. Effective adaptation requires an ongoing, iterative process of risk and vulnerability assessment, adaptation action, performance assessment, monitoring, and continuing adaptation. This process requires a range of technical skills, quality data sources, and institutional collaboration to bring together the scientific, engineering, and planning resources necessary to make good decisions. Climate impacts assessment and adaptation planning is not a stand-alone process. In order for climate impacts assessment and adaptation to be pursued effectively, they must be integrated into the ongoing transportation decision-making process. Also, historic climate trends to designing for future (and uncertain) climate projections – many elements of transportation infrastructure are sufficiently long-lived that it may not be prudent to plan and design based on historic averages, a broader systems approach and risk management procedures to incorporate climate change into decision-making and defining appropriate design characteristics

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Readings in UN-Sustainable Development Goals and the Lagos Region

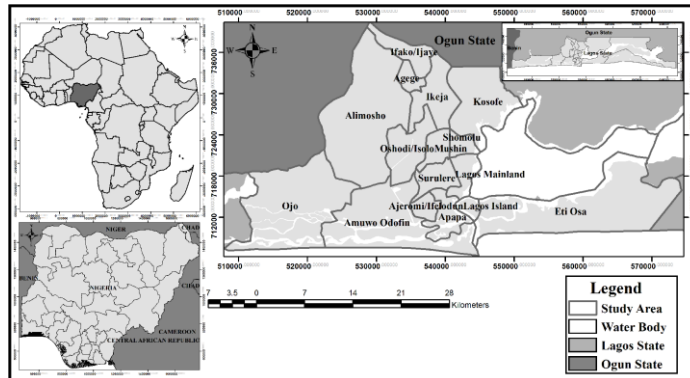


Figure 1: The map of the study area (with an inset map of Lagos state) and Nigeria indicating Lagos state with map of Africa indicating Nigeria

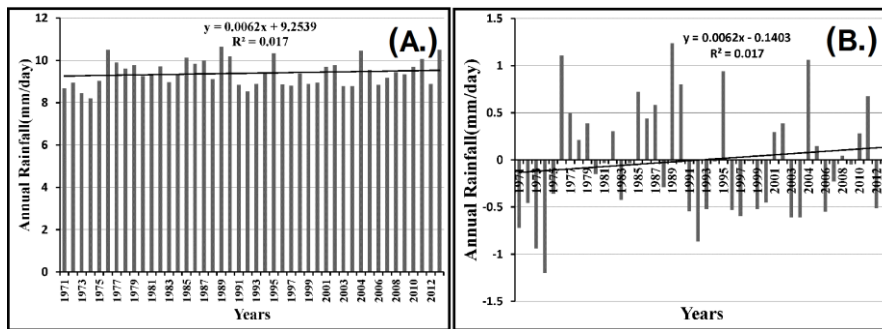


Figure 2: (A.) Annual Rainfall trends in Lagos metropolis between 1971 and 2013. (B.) Annual Rainfall Inter-Annual Variability in Lagos metropolis between 1971 and 2013

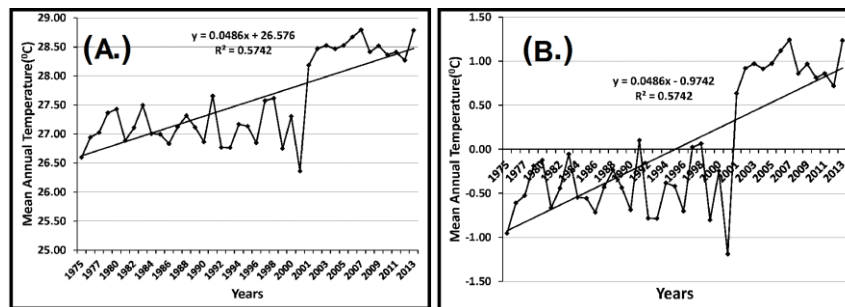


Figure 3: (A.) Annual Temperature trends in Lagos metropolis between 1975 and 2013. (B.) Temperature Inter-Annual Variability in Lagos metropolis between 1975 and 2013

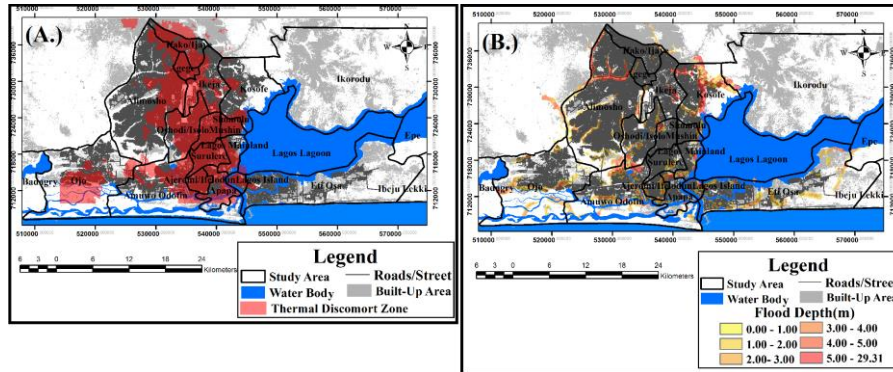


Figure 4: (A.) Thermal Discomfort zone and areas in Lagos metropolis.
 (B.) Flood inundated areas and depth in Lagos metropolis as a result of Rainfall

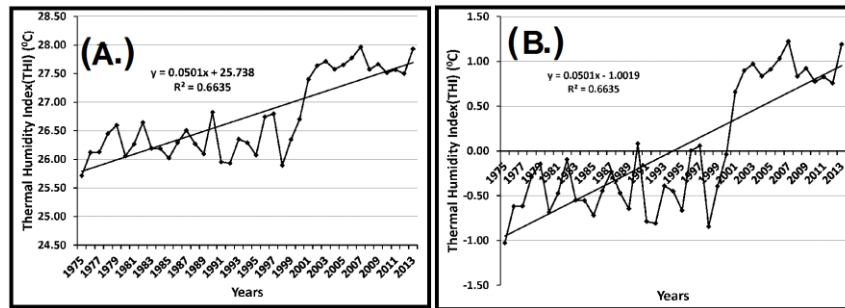


Figure 5: (A.) Annual Thermal Humidity Index trends in Lagos metropolis between 1975 and 2013. (B.) Thermal Humidity Index Inter-Annual Variability in Lagos metropolis between 1975 and 2013

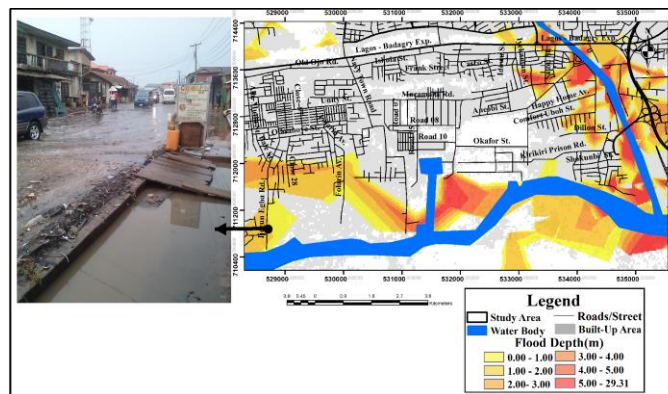


Figure 6: A flooded road after a high down pour in Ijegin town, along Marwa road off satellite town in Awumo Odofin Local Government Area

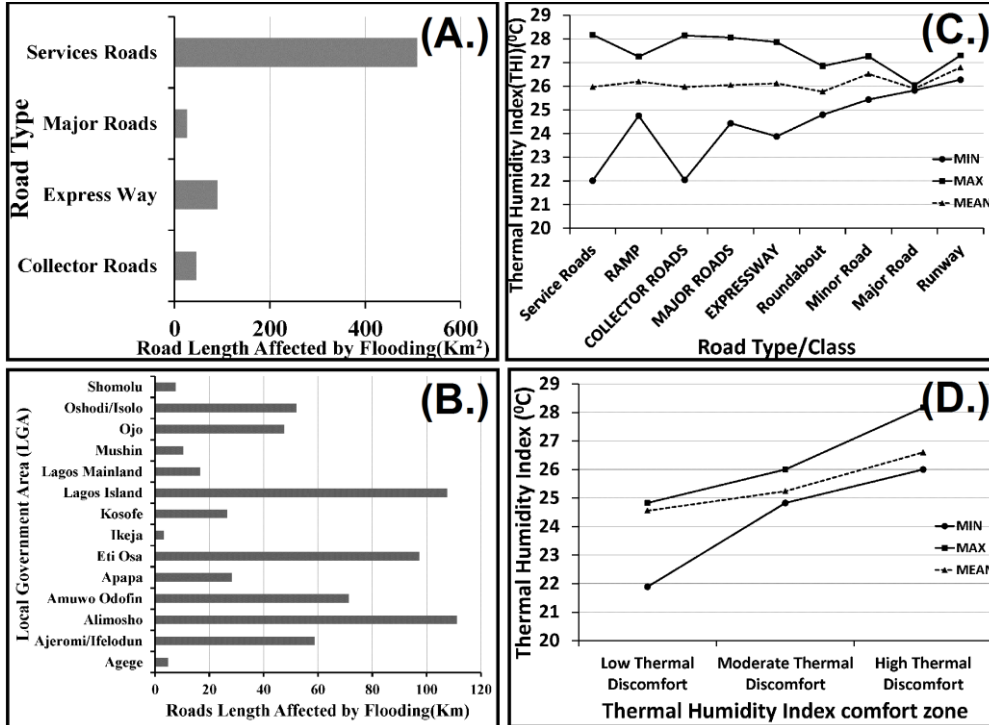


Figure 7: (A.) Road Type Affected by flooding in Lagos metropolis.
 (B.) Local Government Area affected by flooding in Lagos metropolis.
 (C.) Thermal Humidity Index for different Roads types in Lagos metropolis.
 (D.) Thermal Humidity Index comfort zone in Lagos metropolis.

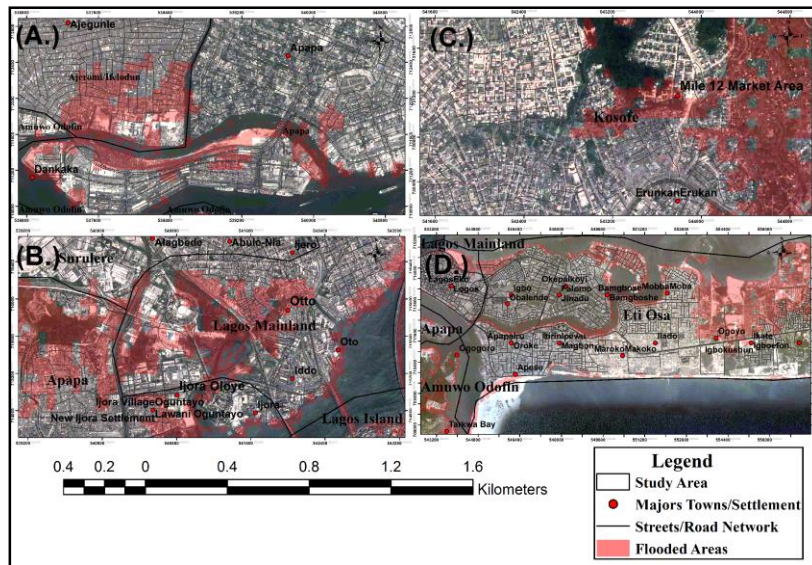


Figure 8: Details of flooded areas in parts of (A.) Apapa; (B.) Ijora; (C.) Kosofe and (D.) Eti Osa area in Lagos metropolis.

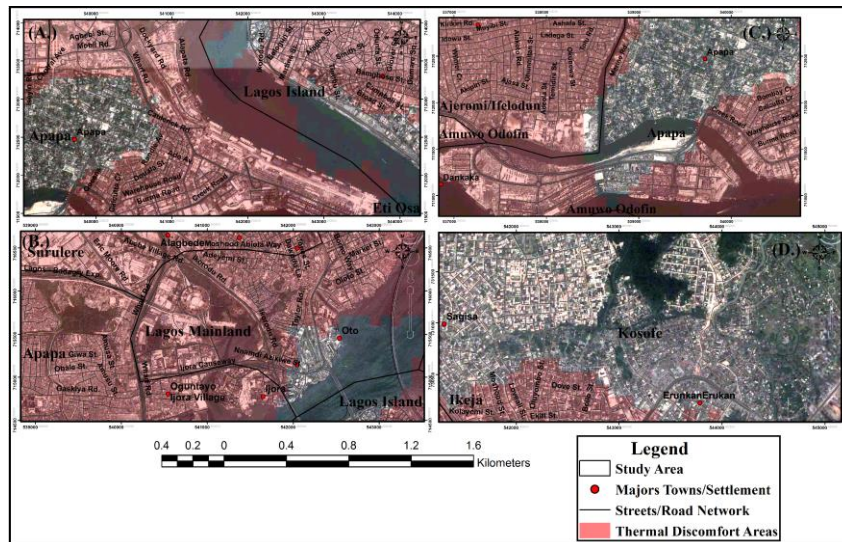


Figure 9: Details of Thermal Discomfort areas in parts of (A.) Apapa and Lagos Island; (B.) Lagos Mainland; (C.) Tin Island and Apapa; and (D.) Kosofe area in Lagos metropolis.



PART II

ECONOMY AND LIVELIHOOD

CHAPTER

4

TRADE OPENNESS, ECONOMIC GROWTH AND POVERTY REDUCTION IN ECOWAS COUNTRIES: A PANEL ANALYSIS

Kehinde Mary Bello & Temidayo Oludiran Akinbobola

Abstract

The paper examines the relationship that exist among trade openness, economic growth and poverty in ECOWAS countries between 1986 and 2015 by employing Vector Autoregression (VAR) model with a view to establishing a trivariate link among the variables. In order to test the stability of the variables, data were subjected to panel unit root and co-integration test. The findings that emerge from the analysis using the VAR impulse response showed that both trade openness and government expenditure have the potential to reduce poverty in ECOWAS countries in the medium and long run, trade openness have the potential to contribute to the economic growth of ECOWAS countries in the long run while economic growth has limited power to predict variation in poverty reduction in ECOWAS countries in the short run. It was also revealed that trade openness and growth exhibited statistically significant influence on per capita consumption expenditure (poverty). Therefore, it was recommended that government should encourage export and trade polices to support intra-trade within the region to gear economic growth via fiscal sustainability in ECOWAS countries.

Keyword: Trade Openness, Economic Growth, Poverty, Vector Autoregression.

1. Introduction

Openness promotes efficiency in the distribution of resources through specialisation and comparative advantage; it stimulates competition in international markets and aids dissemination of knowledge and technology

across countries. Nonetheless, economic growth is dependent on trade while growth is central and fundamental for any deliberation about the impact of trade. Since the time of Adam Smith, empirical findings on trade theory and policy have been debated dwelling on the importance of trade and trade liberalisation as a factor for poverty reduction (Miller and Upadhyya, 2000). There are ample evidences that nations who trade more tend to be richer than nations who barely trade. According to World Bank (2011), poverty is a situation where citizens do not own enough income for food, clothing, housing and education which are the basic necessities of life. Craft (2000) also stressed trade openness as an important element for economic growth. All of the aforementioned led to series of proposals by international organisations: The World Bank and United Nations to seek sustainable development in the world. This prompted many nations to reduce commercial barriers, control economic activities in order to attain an upsurge in economic growth, which indicated that extroversion is an important element in speeding up economic growth globally. There are different factors considered by scholars in clarifying if trade is a prerequisite for economic growth. First, is trade measurement and the methodology used in model estimation which is still deliberated upon (Huchet-Bourdon *et al.*, 2011). A number of studies have analysed the relationship between trade and economic growth amongst which are L'opez (2005); Herzer (2013) who established a positive link. The strength of the relationship, besides the properties of the samples (country type, time span) under consideration, depends on numerous factors, and also econometric technique employed in analysis. According to Rodriguez and Rodrik (2001), inappropriate trade measurement and specification of the estimated model is one of the major problems.

Empirical evidences such as Dollar and Kraay, (2001); Prabirjit (2007); Hamad *et al.*, (2014) support the notion: trade is poverty-alleviating in the long run by fostering economic growth but opposes its adverse effect. It is also of the opinion that increase in economic growth trickles down to poverty reduction in developing countries but the opposite is the case in ECOWAS countries in which despite the increase in the Gross Domestic Product (GDP), poverty is still on the high side. In line with theoretical effects of trade on poverty, economic growth could be established. The need to address the issue of poverty is so important considering the high rate of poverty in ECOWAS countries.

Poverty reduction or eradication of extreme poverty was the first target of the Millennium Development Goals of the United Nations which is similar to the Sustainable Development Goals (SDGs). Poverty is therefore seen as a global issue that demands holistic and all-encompassing effort on the part of the government to accomplish. In the developing world, particularly in Africa, poverty reduction is imperative for government and international organisations future purposes.

There have been strong arguments among researchers and policy makers on the opinion that sustained economic growth is necessary for poverty alleviation even though it has been established in literature that economic growth is an important channel through which trade openness led to poverty reduction. Therefore, it is important to investigate the link among trade openness, economic growth and poverty level for further clarification. In accordance with the above, section two is a summary of theoretical and empirical issues on the relationship among the variables. The model specification is highlighted in section three while section four provides empirical results and section five dwells on conclusion and policy implications of the study.

2. Literature Review

The bulk of empirical issues in the literature on trade openness, economic growth and poverty in developing countries has been investigated based on cross country analysis (Yanikkaya, 2003). Dollar & Kraay (2001) envisaged that increase in trade leads to rapid growth which then improves the standard of living of the poor in a society. While some empirical literatures are of the opinion of a positive relationship (direct or indirect), some are of a negative relationship, and some claim a little systematic evidence, moreover, differs. Empirical evidences by (Kakwani, *et al.*, 2000; World Bank, 2002; Dollar, 2004) inferred a long run relationship for growth-poverty linkage and envisaged that growth is an influential prerequisite for poverty reduction. Dollar and Kraay (2002) disclosed that the poor have benefited from growth as much as appropriate in the society as their income evolves respectively with their average growth. World Bank (2001) stated that the different results of poverty reduction are caused by a certain growth rate, in which the income level over time and initial level of inequality greatly determine the rate.

It was inferred that economic growth drastically reduced poverty in China. According to Lin (2003) who investigated effect of economic growth and income inequality on economic growth in China between 1985 and 2001, it was showed that increased income inequality effectively reduced poverty in China. Also, Liang (2007) examined the relationship between trade and poverty in Urban China. Generalised Methods of Moments (GMM) and the simultaneous equation estimates were employed to control endogeneity in the model, it was found that China's increase in trade reduced poverty in the urban region directly via its positive impacts on economic growth. Furthermore, Tsai and Hung (2007) examined the link among trade openness, economic growth and government contribution to poverty alleviation in Taiwan. Time series data and the techniques of unit root, granger causality and cointegration tests were employed. The result showed that economic growth reduced poverty and openness to trade helped the poor to attain economic growth in both short and long run during the study period. In order to confirm if trade liberalisation stimulated economic growth in Korea and India, Prabirjit (2005) applied techniques of ARDL and cointegration test but found no positive relationship in the long run. Furthermore, Prabirjit (2007) again examined the relationship between trade openness and economic growth and result showed a positive relationship between the two variables. It was therefore suggested that a country that trades tends to experience increase in economic growth. Similarly, Barboza (2007) found positive and significant relationship between trade and economic growth in Latin America by means of panel analysis between 1950 and 2000.

Gilles *et al.*, (2009) examined 75 countries which included 3 European countries, 9 Middle and Arab countries, 11 Asian and Pacific, 25 Central and Latin America countries, 27 African countries for the impact of trade on growth rate of per capita income. The study showed heterogeneous trade-growth nexus in long and short run while openness was more effective on the growth of countries with low growth rate likened with those with high growth rate. It was concluded from the study that countries with low growth rate benefitted more from increased trade which aids convergence of higher growth rate in the long run. Anyanwu (2013) examined the correlation of poverty aimed at inclusive growth in 43 African countries. The Feasible Generalised Least Square (FGLS), Ordinary Least square together with the Generalised Methods of Moments Instrumental variables (IV-GMM) were employed for analysis. It was found

that the following variables: primary education, inflation rate, high income inequality and high population rate tends to increase poverty in Africa and are not favourable for poverty reduction. By investigating the impact of trade liberalisation on growth rate of Tanzania, Hamad *et al.*, (2014) employed the technique of Ordinary Least Square to investigate the model twice and found positive and significant relationship between trade openness and economic growth. It was inferred that the effect was greater when Tanzanian imbibed a closed economy compared to the open economy. Aremo (2014) scrutinised the connection among trade liberalisation, economic growth and poverty level in Nigeria using Vector Autoregressive technique. To examine the stationarity of the variables, data were subjected to unit root and cointegration test. It was found that economic growth exhibited positive impact on trade in Nigeria. Furthermore, a low interaction was found between trade and poverty indicating a weak relationship among the variables.

From the discussion above, there is no consensus on the relationship among trade openness, economic growth and poverty in ECOWAS countries and studies that have dwelled into the relationship are sparse. Therefore, there is a need to examine the link in order to contribute to the existing literatures. Also, it has been established in literature that economic growth is a channel through which trade impacts on poverty, therefore, the study examines the dynamic relationship among the three variables.

Theoretical Framework

The theoretical framework is based on Endogenous growth theory which emphasises existence of various mechanisms through which trade openness impacts on economic growth and income of the poor in the long run. According to Chang, Kaltani and Loayza, (2009), trade enhances acquisition of low price and high-quality goods, including knowledge and technology to boost the economic productivity of a country. It is of the opinion that trade constraints hinder the transfer of knowledge from highly industrialised regions to the less industrialised ones. Agnor (2004) also started that the transfer of knowledge is not limited to trade of specialised inputs and machinery but also in the form of production patterns. Therefore, the influence of trade towards a higher productivity is induced by the growth effect of resource allocation from a less productive sector to a more productive one. Thus, the structural transformation

with substantial implication on the level of poverty is induced by increasing income and providing more resources to tackle the problem of poverty.

3. Methodology

3.1 Empirical Model and Technique of Analysis

Based on the above theoretical consideration and following Tsai and Huang (2007), Ayinde (2013), Aremo (2014), Goff and Singh (2014), the relationship among trade openness, economic growth and poverty is modelled as follows:

$$POV_{i,t} = \alpha + \beta TO_{i,t} + \delta GDP_{i,t} + \lambda Z_{i,t} + \eta_i + \mu_i + \varepsilon_{i,t} \quad (i)$$

where 'i' indexes countries, 't' indexes time, POV_{it} represents poverty, TO_{it} represents trade openness, GDP_{it} represents economic growth and Z_{it} is a vector of other exogenous variable that might affect welfare such as financial deepening measured as ratio of domestic credit to GDP (FD), government expenditure (GOV) and inflation (INF), η_i corresponds to time effects, u_i represent the unobserved country specific effect while ε_{it} indicates a time varying error term.

The variables were subjected to Levine-Lin-Chu (LLC) and Im-Pesaran-Shin (IPS) test to check for order of integration and examine stationarity properties. Both LLC and IPS techniques were employed on principles of the conventional Augmented Dickey–Fuller (ADF) test. LLC test showed that there was heterogeneity of intercepts across members of panel, while the IPS test inferred existence of heterogeneity in the intercepts, as well as in slope coefficients. The tests were applied by averaging individual ADF t-statistics across cross-sectional units to examine presence of a unit root.

Unit root test was followed by selection of an appropriate lag length to avoid the problem of trailing the degrees of freedom and misspecification of the model. The lag length selection was based on Schwarz Information Criteria (SIC) which imposes a harsh penalty compared to Akaike Information Criteria (AIC). It has been stated that low value of SIC indicates a better model. This was followed by cointegration test using Pedroni panel co-integration test.

Moreover, if the results from above analysis indicates the variables are I(1) and not cointegrated, then estimation of reduced form of the VAR model will be employed as represented in equations (ii) to (iv).

$$\Delta TO_{it} = \eta_{1j} + \sum_{k=1}^{p_1} \alpha_{1,ik} \Delta TO_{i,t-k} + \sum_{k=1}^{p_2} \beta_{1,ik} \Delta LGDP_{i,t-k} + \sum_{k=1}^{p_3} \delta_{1,ik} \Delta POV_{i,t-k} + \sum_{k=1}^{p_4} \phi_{1,ik} \Delta FD_{i,t-k} + \sum_{k=1}^{p_5} \varphi_{1,ik} \Delta LGOV_{i,t-k} + \sum_{k=1}^{p_6} \gamma_{1,ik} \Delta INF_{i,t-k} + \varepsilon_{1,it} \quad (\text{ii})$$

$$\Delta LGDP_{it} = \eta_{2j} + \sum_{k=1}^{p_1} \alpha_{2,ik} \Delta LGDP_{i,t-k} + \sum_{k=1}^{p_2} \beta_{2,ik} \Delta TO_{i,t-k} + \sum_{k=1}^{p_3} \delta_{2,ik} \Delta POV_{i,t-k} + \sum_{k=1}^{p_4} \phi_{2,ik} \Delta FD_{i,t-k} + \sum_{k=1}^{p_5} \varphi_{2,ik} \Delta LGOV_{i,t-k} + \sum_{k=1}^{p_6} \gamma_{2,ik} \Delta INF_{i,t-k} + \varepsilon_{2,it} \quad (\text{iii})$$

$$\Delta POV_{it} = \eta_{3j} + \sum_{k=1}^{p_1} \alpha_{3,ik} \Delta POV_{i,t-k} + \sum_{k=1}^{p_2} \beta_{3,ik} \Delta TO_{i,t-k} + \sum_{k=1}^{p_3} \delta_{3,ik} \Delta LGDP_{i,t-k} + \sum_{k=1}^{p_4} \phi_{3,ik} \Delta FD_{i,t-k} + \sum_{k=1}^{p_5} \varphi_{3,ik} \Delta LGOV_{i,t-k} + \sum_{k=1}^{p_6} \gamma_{3,ik} \Delta INF_{i,t-k} + \varepsilon_{3,it} \quad (\text{iv})$$

Equations (ii) to (iv) specifies the Vector Autoregression (VAR) model in which each endogenous variable is treated as a function of lag of itself and lag of each of the remaining variables. Thus, three equations are specified to replicate the three endogenous variables: trade openness, economic growth and poverty level. But if the variables are I(1) and co-integrated, then Vector Error Correction will be estimated. On the other hand, an alternative approach is the estimation of impulse response forecast and variance decomposition derived from unrestricted VAR in levels.

Sources of Data: Data on poverty (consumption expenditure per capita), trade openness, economic growth which was proxy by Gross domestic product (GDP), government expenditure, financial deepening proxy by ratio of domestic private credit used as a percentage of GDP and inflation rate were sourced from World Development Indicators (WDI).

4. Results and Discussions

To avoid spurious regressions, data were examined for panel unit root using Levine, Lin and Chu (LLC); Im, Persaran and Shin (IPS) and Pedroni Panel Co-integration tests. The results are presented below:

Table 1: Panel Unit Root with Individual Intercept

Variable	LLC			IPS		
	Level	First Diff	Status	Level	First Diff	Status
POV	0.9064 [0.8176]	-12.2573 [0.0000]*	I(1)	0.6558 [0.7440]	-11.7464 [0.0000]*	I(1)
TO	0.1804 [0.5716]	-14.4992 [0.0000]*	I(1)	-0.2998 [0.3821]	-14.1711 [0.0000]*	I(1)
LGDP	2.5939 [0.9953]	-8.3089 [0.0000]*	I(1)	6.2653 [1.0000]	-9.8378 [0.0000]*	I(1)
LGOV	3.1658 [0.9992]	-20.7318 [0.0000]*	I(1)	6.1628 [1.0000]	-16.9521 [0.0000]*	I(1)
FD	2.1894 [0.9857]	-8.5045 [0.0000]*	I(1)	2.7000 [0.9965]	-10.2201 [0.0000]*	I(1)
INF	-14.0445 [0.0000]	----- -----	I(0)	-9.9066 [0.0000]	----- -----	I(0)

Note 1: *POV, TO, GDP, GOV, FD and INF* represent poverty level, trade openness, Gross Domestic Product, Government Expenditure, Financial Deepening and Inflation rate respectively.

Note 2: The value in the square bracket [] indicates the probability values; (**) indicates significant at 5% level and (*) indicates significant at 1%.

From table (1), the result of panel unit root test showed that Poverty level (*POV*), Trade openness (*TO*), Economic growth (*GDP*), Government Expenditure (*GOV*) and Financial Deepening (*FD*) were stationary at first difference, i.e., the variables are I(1) series while inflation rate (*INF*) is stationary at level, that is, the variable is I(0) series. This indicates that when regression is run on these variables, there is absence of spurious result.

Table 2: Panel Co-Integration Test Results with Individual intercept

Methods	Stat	Prob		
Kao Co-integration Test	-3.9493	0.0000		
Within Dimension				
Pedroni Co-integration Test	Weighted			
Variables	Stat	Prob	Stat	Prob
Panel v-Statistics	0.1528	0.4393	-0.3414	0.6336
Panel rho-Stat	0.5945	0.7239	1.2186	0.8885
Panel PP-Stat	-3.2543	0.0006*	-3.4371	0.0003*
Panel ADF-Stat	-4.3371	0.0000*	-4.5320	0.0000*
Between-Dimension				
Panel rho-Stat	2.3698	0.9911		
Panel PP-Stat	-5.5396	0.0000*		
Panel ADF-Stat	-4.1015	0.0000*		

Note: 1 Null Hypothesis: no co- integration. 2. Newey–West automatic bandwidth selection and Bartlett kernel.

* Statistical significance at 1%. ** Statistical significance at 5%. *** Statistical significance at 10%.

The result of Pedroni co-integration test presented in Table (2) above showed the existence of long-run relationship among trade openness, economic growth and poverty in ECOWAS countries. The Kao residual panel co-integration test showed there is co-integration among the variables as a result of the probability value which is less than 5 percent in ECOWAS countries. Therefore, the study concluded the existence of long-run relationship among trade openness, economic growth and poverty in ECOWAS countries.

Table 3: Lag Order Selection Criteria

Lag	LogL	LR	FPE	AIC	SIC	HQ
0	-1170.627	NA	4.492029	18.52957	18.66394	18.58416
1	-1079.406	172.3860	1.883916	17.65994	18.60054*	18.04210*
2	-1048.138	56.13540	2.037069	17.73446	19.48128	18.44417
3	-1006.929	70.08721	1.894103	17.65243	20.20548	18.68970
4	-978.7996	45.18481	2.182237	17.77637	21.13565	19.14120
5	-937.5963	62.29166	2.069928	17.69443	21.85993	19.38682
6	-880.8522	80.42460	1.560126	17.36775	22.33948	19.38771
7	-840.7367	53.06618	1.556712	17.30294	23.08090	19.65045
8	-798.4133	51.98785*	1.535454*	17.20336*	23.78754	19.87843

Note: * indicates lag order selected by the criterion; LR, FPE, AIC, SIC and HQ indicate sequential modified LR test statistic, Final Prediction Error, Akaike Information Criterion, Schwarz Information Criterion and Hannan-Quinn respectively.

The lag length selection criteria as indicated in Table (3) produced conflicting results. Schwarz Information Criteria (SIC) and Hannan-Quinn (HQ) both showed optimal lag of one (1) while FPE, AIC and LR showed an optimal lag of eight (8), but the log likelihood indicated lag zero. Therefore, inferring from the above results, the study chose lag of one (1) for the independent variables as indicated by SIC.

Impulse Response: Impulse response functions are essential in determining directions of shocks to innovations. The ordering applied are poverty reduction (POV), trade openness (TO), log of Gross Domestic Product (LGDP), the logarithm of government expenditure (LGOV), financial deepening (FD) and inflation rate (INF).

Table 4: VAR Impulse Response of Poverty, Trade Openness, and Economic Growth

Panel A: Response of TO:

Period	POV	TO	LGDP	LGOV	FD	INF
1	-0.050088	13.55832	0.000000	0.000000	0.000000	0.000000
2	0.719177	11.37243	-0.268763	0.714927	-0.319824	1.156181
3	0.996619	9.552873	-0.421060	1.072357	-0.261446	1.440994
4	1.046726	8.044130	-0.511055	1.247572	-0.069922	1.370362
5	0.994850	6.794359	-0.565865	1.326831	0.148076	1.174057
6	0.900656	5.758419	-0.599601	1.353716	0.349063	0.951196
7	0.792540	4.898293	-0.619975	1.350991	0.518002	0.741792
8	0.683878	4.182490	-0.631457	1.331032	0.652278	0.559587
9	0.580758	3.585146	-0.636802	1.300864	0.754369	0.407034
10	0.485697	3.085108	-0.637810	1.264651	0.828517	0.282077

Panel B: Response of LGDP:

Period	POV	TO	LGDP	LGOV	FD	INF
1	0.007186	-0.003479	0.020120	0.000000	0.000000	0.000000
2	0.006338	-0.001624	0.020309	-3.13E-05	-0.000237	-0.000128
3	0.005732	-0.000134	0.020431	0.000119	-0.000573	6.79E-05
4	0.005243	0.001056	0.020515	0.000364	-0.000906	0.000365
5	0.004810	0.002000	0.020573	0.000659	-0.001199	0.000670
6	0.004404	0.002745	0.020616	0.000981	-0.001439	0.000945
7	0.004013	0.003327	0.020648	0.001317	-0.001627	0.001181
8	0.003630	0.003778	0.020671	0.001658	-0.001769	0.001378
9	0.003251	0.004123	0.020689	0.002001	-0.001871	0.001538
10	0.002876	0.004383	0.020702	0.002343	-0.001940	0.001667

Panel C: Response of POV:

Period	POV	TO	LGDP	LGOV	FD	INF
1	37.29138	0.000000	0.000000	0.000000	0.000000	0.000000
2	31.84743	2.650634	0.989628	-3.201225	1.945147	-1.788256
3	28.10708	4.630904	1.662701	-5.220031	2.797109	-2.330781
4	25.41871	6.084705	2.137257	-6.498932	3.065262	-2.330663
5	23.40312	7.128847	2.482103	-7.300526	3.021630	-2.111516
6	21.83093	7.855909	2.739194	-7.786796	2.815458	-1.820500
7	20.55863	8.338416	2.935179	-8.061026	2.530473	-1.522715
8	19.49389	8.632885	3.087583	-8.190857	2.214275	-1.245189
9	18.57601	8.783289	3.208268	-8.221505	1.893929	-0.997435
10	17.76438	8.823837	3.305442	-8.183666	1.584521	-0.781076

Note 1: TO, GDP, POV, GOV, FD and INF represent, trade openness, Gross Domestic Product, poverty level, Government Expenditure, Financial Deepening and Inflation rate respectively

Table (4) depict the impulse response of poverty (POV), trade openness (TO), log of Gross Domestic Product (LGDP), log of government expenditure (LGOV), financial deepening (FD) and inflation rate (INF). The impulse response shows the response of poverty reduction, trade openness, and economic growth to shocks in the system and indicates the directions and persistence of the responses to each over a period of ten (10) years.

Table (4), Panel A display the response of trade openness (TO) to innovation in POV, LGDP, LGOV, FD and INF for ten (10) years. The response of trade openness to its own shock was positive throughout the period. The estimate showed a high value of 13.55 in period one and decreased gradually to 5.79 in period 5 and thereafter marginally declined to 3.08 in period 10. Thus, assuming all endogenous factors in the model is constant, trade openness was expansionary in short and medium run and contractionary in long-run. In addition, response of shocks to per capita consumption expenditure (POV) inferred a negative response on trade openness in the short-run but was positive in medium and long-run. The value initially estimated was -0.05 in the first year and increased gradually to 1.04 in period 4 and thereafter marginally decreased

to 0.48 in period 10. Thus, poverty impacts negatively on trade in the short-run, but exhibited positive impact on trade in the medium term, however contractionary positive impacts on trade openness in the long-run.

Also, response of shocks to economic growth had no immediate effect on trade in the short term but its effects in medium and long run was negative. The estimate was 0.00 in the first period. It declined to about -0.26 in the second period and sustained with negative value till the end of the time horizon. This indicated medium and long-run contractionary effects of economic growth on trade openness. Increase in economic growth reduced trade openness. Furthermore, shocks to government expenditure (LGOV) and inflation rate (INF) exhibited an expansionary impact on trade openness (TO) most of the time except in year one when the magnitude was zero. This implies that an increase in government expenditure and inflation increases trade in the middle and the long-run in ECOWAS region.

Table (4), Panel B displays the response of economic growth (LGDP) to innovation in TO, POV, LGOV, FD and INF for 10 periods. From Panel 3, shocks to poverty proxy by per capita consumption expenditure (TO) showed a contractionary positive effect on economic growth. The assessment started from a high value of 0.007 in period one and decreased gradually to 0.004 in period 5 and then declined to 0.002 in year 10. This implied that shocks to per capita consumption expenditure generates contractionary response from economic growth. Furthermore, shocks to trade (TO) had negative effect on economic growth but was positive in the medium and long-run. The estimate was initially -0.003 in the first year and then negative till year 3. The pattern thus was positive at the end of the period. This implies that openness affects output growth in the long run, therefore openness is contractionary in the short-run but expansionary in the long-run. The result inferred that to derive maximum benefit from trade openness, ECOWAS countries must be prepared to bear initial consequences associated with trade policy implementations.

Table (4), Panel C demonstrates the response of Poverty (POV) to innovation in TO, LGDP, LGOV, FD and INF for 10 years. The response of POV to its own shocks was affirmative at 0.01 throughout the 10th period. There was an initial high value of 37.29 in period 1 which decreased gradually to 23.40 in

period 5 and thereafter marginally declined to 17.76 in period 10. Thus, all other endogenous factors in the model including per capita consumption expenditure was expansionary in the short and medium runs but contractionary in the long-run. In addition, response of shocks to trade (TO) produced no immediate effect on per capita consumption expenditure but its effect in the medium and long-run was positive. The estimate was initially 0.00 in the first year and increased gradually to 7.85 in year 6 and thereafter marginally increased to 8.82 in the 10th year. Thus, all other endogenous factors in the model including per capita consumption expenditure were expansionary in short, medium and long-run. This shows that increase in trade increases per capita consumption expenditure, thus reduces poverty in the middle and long-run in ECOWAS region.

However, shocks to economic growth (GDP) produced no immediate influence on per capita consumption expenditure but its effect in medium and long-run was positive. The estimate was initially 0.00 in the first period and increased gradually to 2.48 in period 5 and thereafter marginally increased to 3.30 in period 10. Thus, all other endogenous factors in the model including per capita consumption expenditure was expansionary in short, medium and long-run. This shows that an upsurge in growth increases per capita consumption expenditure, thus reduces poverty both in the middle and long-run in the ECOWAS region.

Furthermore, shocks to government expenditure (LGOV) and inflation rate (INF) on their part had contractionary impact on per capita consumption expenditure (POV) in time horizon except period 1 when it was zero. This implies that an increase in government expenditure and inflation reduces per capita consumption expenditure and thereby increases poverty both in the middle and long-run in ECOWAS region. Shocks to innovation of financial deepening proxied by credit to private sector had expansionary impact on per capita consumption in short and medium run from 0.00 to 3.02 in period 5 and decreased to 1.58 in period 10. Thus, the endogenous factors in the model including financial deepening was expansionary in short and medium run but contractionary in long-run. This shows that an increase in credit to private sector increases per capita consumption expenditure, thus reduces poverty both in the short and middle-run in the ECOWAS region.

5. Conclusion and Policy Implication

The paper empirically analysed the relationship among trade openness, economic growth and poverty in ECOWAS by employing Vector Autoregression (VAR) model with a view to establishing a trivariate relationship among the variables. Data spanning from 1986-2015 was extracted from World Development Indicators (WDI). To examine the properties of the variables, data were subjected to a panel unit root and co-integration test. It was concluded that trade openness and government expenditure have the potentials to reduce poverty in the medium and long-run. Economic growth had limited power to predict variations in reducing poverty in the short-run. Furthermore, trade openness exhibits the potential to contribute to the economic performance of ECOWAS countries in the long-run. Thus, it can be inferred from the study that all attempts should be made to ensure that the economy is well guided and structured in articulating trade policies and poverty alleviation tactics to evade the effects of structural rigidities that affect economic growth in ECOWAS countries. In addition, trade and poverty alleviating policies must be complemented with sound economic policy for effectiveness in ECOWAS countries.

6. Recommendations

Centred on the findings on the relationship among trade openness, economic growth and poverty reduction in ECOWAS, it is recommended that ECOWAS government ought to encourage export and trade policies to support intra-trade within the region. Government should recognise the capabilities of the poor with the view to increasing their contributions to the growth process in the country. Secondly, pro-poor policies should be designed to aid poverty alleviation so that benefits of economic growth can be conveyed to the poor. Also, all tiers of the private sector should be fully involved in pursuing the economic growth of the ECOWAS economy and ultimately poverty reduction. Finally, trade openness should be kept at a peak by adopting significant trade policies to ensure economic growth via fiscal sustainability in ECOWAS countries.

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CHAPTER

5

EMPOWERING PEOPLE WITH DISABILITY THROUGH SUSTAINABLE ENTREPRENEURSHIP IN LAGOS STATE

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Abstract

Empowerment of people is like a recurring decimal that people make rhetoric of without actually doing the needful for those that needs to be empowered. Reason being that empowerment is the process of enhancing the capacity of individuals or groups in order to make choices and transform their choices into positive outcomes that can better their lives. People with disabilities are underrepresented in the labour market as employers of labour are not willing to give them jobs and majority of them lack the wherewithal to be self-employed. Yet, they are citizens that are also entitled to live well with a good standard of living regardless of their physical challenges. Many people with disabilities do not have any means of livelihood in this part of the world and government, at both the Federal and State levels, does not deem it fit to provide sustainable means of survival for these category of our population so that they can attain financial empowerment. Empowering them becomes paramount to avoid, and discourage people with disabilities from taking to begging on the streets for survival. For these reasons, it becomes crucial for the State Government to create ameliorative conditions for people with disabilities by empowering them through entrepreneurship capacities that their disabled circumstances will enable them perform. The study will investigate how entrepreneurship endeavours by people with disabilities can counter lack, poverty, frustrations and other barriers, such as begging, to make ends meet. The study will also promote empowerment and how to facilitate economic self-sufficiency and sustainability for people with disabilities. The main purpose of this study is to examine people with disability and how they can be economically empowered through entrepreneurship. The study will adopt qualitative research methods through

snowballing sampling technique to elicit responses from eligible disabled respondents.

Keyword: Begging, Empowerment, Financial, Disabled People, Entrepreneurship.

Introduction

This study takes on the principal of appreciating work as the central pre-occupation in the mind of every living being derivative of the core challenges thrown up in human needs assessment and the imperatives of materialistic conception of history in all epochs of human history.

- * Disability in Nigeria is viewed as a curse, and so, people discriminate against persons with disabilities, even within the family especially children with disabilities (CWDs).
- * The resultant culture has really denied these Nigerians of their rights to the dignity of the human person and to the development of their full potential to participate in the developmental process of Nigeria.
- * Situation like this have led the International Community to seek to reverse the trend by the adoption, among other instruments, of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) (Kolawole, 2016). Disability is the limitation in performing certain tasks that society expects of an individual. Disability permeates every society, and has done so through the ages (World Report on Disability, 2011). Disability is both a cause and a consequence of poverty. There is a strong relationship between disability and poverty with a cyclical tendency – poverty makes people more vulnerable to disability and disability reinforces and deepens poverty (Mitra, Sophie, Aleksandra, & Brandon, 2011). Nigerians with disabilities continue to face social stigma, exploitation, and discrimination (Nigerian Institute of Advanced Legal Studies, 2010).

Disability is a world-wide phenomenon that has no boundary and cuts across countries, sex, age, religion, race, social status, economic and political positions. Its prevalence and incidence in the contemporary world are high and worrisome. It is estimated that there are more than 2 billion physically challenged people world-wide and majority are from developing countries (CeDDI, 2016). The Nigerian National Assembly in 2013 estimated that there

are over 20 million people living with disability in the country (www.nassnig.org/nass/). The National Population Commission of Nigeria (NPC) has estimated that no fewer than 19 million persons are living with disabilities in Nigeria. (<https://www.vanguardngr.com/2018/10/npc-puts-nigerias-disabled-population-at-19million/>)

The Chairman of the Commission, Eze Duruiheoma (SAN), announced this during the 73rd UN General Assembly General Discussion of Agenda 28 on Social Development at the UN headquarters in New York. The World Bank estimates that one billion people, or 15% of the world's population, experience some form of disabilities and the prevalence is higher for developing countries.

The NPC Chief said Nigeria has a policy that reserves a percentage of vacancies for the disabled, adding that corporate organisations are also encouraged to reserve two per cent for the disabled population. On January 23, Nigeria's President Muhammadu Buhari signed into law the Discrimination Against Persons with Disabilities (Prohibition) Act, 2018, following 9 years of relentless advocacy by disability rights groups and activists.

“As a result, government is implementing measures to promote and enhance the entrepreneurial skills of many of our 19 million Persons with Disabilities (PWDs) Agency Report, 2018.

Statement of Problem: The problem which this discourse set out to address is that based on the centrality of the basic needs as man that makes it imperative that he must work to address all needs; whether primary or secondary, not all humans have the access to work based on differential opportunities. To mitigate the tyranny of differential opportunities as well as obviate the ends of entrenched systems of social inequality, this paper espied the central role of government, especially in terms of its instrumental duties and obligations to the citizens. This role becomes more poignant when the obviously disadvantaged position of people living with disabilities, and the vulnerable group are considered. In such a scenario, a highly instrumental

minded government will ensure that it creates opportunities that address the issue of all according to their capacities, and all according to their needs.

Unfortunately, the present discourse argues, that we live in a society which seems to thrive more on the Darwinian principle of survival of the fittest, where, in an atmosphere of skewed competitive drive most peoples' take on an obviously manifest disadvantaged position, such as the vulnerable group, and people living with disabilities, is that the winner takes it all, and the losers have to fall. This is chiefly so because, contrary to our earlier disposition towards a system operating on an instrumental view of the state that works towards a palpable sense of equity, fairness and justice, we rather operate a system that illuminates a distributive view of the state that thrives on seizure of state power by a seemingly exploitative class, who uses the resources of the state to serve their selfish interests and insatiable appetites to the detriment of the masses.

The greater losers in these state of affairs are people living with disabilities. And this state of affair calls to question our humanistic drives, qualities and inclinations which anchors development on 'not how much we add to the coffers of those who already have much, but how little we add to the coffers of those who have nothing. Unfortunately, this humanistic inclination is rather observed in the breach in our kind of society where 'dogs eat dogs', and the highly advantaged prides themselves in an irresponsible monopoly of the general goods of the people by thriving on an illegal acquisition of the 'lion's share'.

The forgoing scenario illuminates, then, core issues in empowerment which, not only brings to the fore the essence of our humanity in equipping those with skills to be of relevance to themselves and fulfill their lives obligations as functional citizens, but also add to the growth and development of our society. The bigger problem identified here is that while those ethos of humanity are betrayed on the altars of indifference and lack of care, the concerned individuals not only bear the brunt and suffer in every sense of social handicap and psychological deprivation as well as defeat, but the society at large, deprives itself of a very large chunk of human services that would have added greatly to its growth and development. The question that arises at this point for us all to ponder over is: how do we as individuals, and agents of the

state, take steps, and put in place, machineries that will help to mitigate and alleviate the parlous state of affairs so identified? On this note the larger questions arises anchored on the philosophy that guides our discourse!

Ideological Base/Inclination and Philosophy of the Discourse

This discourse is guided by the philosophical understanding that every human being has an innate capacity to functionality and to be productive in adding to the common good if given the opportunity and empowerment to explore his/her potentials to the highest level. Based on this level, even at the personal level of living with disability, it becomes a social responsibility that we must all strive at all times, as people of conscience to help each other grow and attain their work dreams and aspirations i.e. be our brothers' keeper. At the level of governance, the instrumental view of the state must be brought to bear in the sense that social corporate responsibility imposes it upon the state to create opportunities for its citizens and empower the people of its society to make exploits with their potentials. Hence, the concept of entrepreneurship comes to mind. The foregoing dispositions therefore brings to limelight the major objectives of this discourse which are hereby outlined, and follows immediately.

Objectives:

1. To thoroughly highlight and illuminate the instrumental role of the state as it also relates to the testy issue of empowerment.
2. To establish methodical principles that should guide and direct the course of empowering citizens of the society toward a functional existence.
3. To explore the highpoints of Needs Assessment as they inform the empowerment needs of the individual.
4. To show that empowerment of the citizens of the state is an issue of right, and not just a privilege.
5. To anchor the issue of empowerment of people living with disabilities as a social/corporate social responsibility beholden on us all as individuals, corporate entities, and the government at large.
6. To interrogate the extent and nature of empowerment programmes in our society.

7. To establish the extent of distributive justice in the dispensation of empowerment programmes in our society.
8. To ascertain the extent people living with disabilities in our society feel accommodated or alienated/cheated in our society's or government's dispensation of empowerment programmes.
9. To establish the level of awareness, readiness/willingness and capacity of people living with disability in our society to avail themselves of empowerment programmes.
10. To establish the relationship between social status/class and people's access to empowerment programmes in our society.

It is clear that seeking competitive employment has not been a very successful strategy leading to economic self-sufficiency for people with disabilities. In response to this trend, one alternative strategy to address the complex issues hindering people with disabilities from becoming economically self-sufficient is self-employment and entrepreneurship.

Entrepreneurship Development and the Role of the State in Nigeria

The driving force of economic development of a country is entrepreneurship which enhances the productivity level of that country. Development is possible when there is an enhanced productivity that results in the creation of employment opportunities (Diyoke, 2014). Entrepreneurship connotes the spirit of enterprise which is capable of transforming a nomad to a cattle rearer, to a settled agriculturist, to a trader, to an industrialist and finally to a multinational corporation (Metu & Nwokoye, 2014). Entrepreneurship spirit is characterised by innovation and risk taking (Johnson, 2018). Entrepreneurship involves the process of creating progressive wealth and domestic entrepreneurial development plays vital role in the social and economic growth and development of any country as evident among the Asian Tigers. Domestic entrepreneurship empowers citizens to develop indigenous enterprise that contribute to employment creation, diversification of the economy and increase in exportation of local finished products (Diyoke, 2014). This has a multiplier effects on the nation's economy as the GDP tends to increase progressively, standard of living generally increases, consumption of foreign products decreases, inflation rate falls and competition and industrialisation are enhanced. Prior to the colonial era and the development

of money as an acceptable means of exchange, Nigerians were entrepreneur minded in that many people were involved in trading activities while others produced one thing or the other which were sold in exchange for what they did not have, guided by a high moral standard and value system (Johnson, 2018). Entrepreneurship was a way of life and this did not give room for unemployment and high crime rate as we have it today. During the colonial era, the introduction of foreign goods and foreign companies turned Nigerians to middlemen, employees in the companies and dragged Nigerians into the labour market, thereby leading to the waning of the spirit of entrepreneurship (Johnson, 2018). So, the private sector economy in Nigeria became foreign driven. The Nigerian government, in the past few years has come to the realisation that entrepreneurship is the key to development and that developing countries may not be able to improve their conditions and their lot in the globalising society without developing entrepreneurship in their various countries. This forms the basis for the campaign for development of small and medium scale enterprises in the country by the government at all levels as well as the non-governmental organisations. One of the major ways by which the government has encouraged entrepreneurship is through entrepreneurship education. This type of education empowers the individual with knowledge, information and training that enables him to carefully assess opportunities, develop innovative ideas and become creative (Omede & Oguche, 2016). This will help the individual to become a business owner which may grow into a big corporation in the future if carefully managed. To encourage entrepreneurial development at the micro level, the government at different time put in place specific schemes some of which are, Small Scale Industries Scheme in the 1970s; Nigeria Bank of Commerce and Industry Loan Scheme; Special Fund for Small Scale Enterprises Loan Scheme in 1980; National Economic Reconstruction Fund since 2001; Small and Medium Equity Investment Scheme since 2001; and Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) and so on (Diyoke, 2014). However, entrepreneurship development in Nigeria has been confronted by a number of challenges including, poor access to credit and other financial support, poor and inconsistent public policy, poor electric power supply, poor infrastructure, high cost of running a business among others (Nnadi, 2014).

Challenges of Living with Disability in Nigeria

The population of persons with disability is growing all over the world as world population increases. According to ILO, over 368 million adults within the working population in the world live with disabilities. WHO and World Bank in 2011 claimed that about 16% of persons aged 18 years and above were disabled with approximately 12% in the high income countries and approximately 18% in the low income countries (Kitching, 2014). Based on the 2006 population census, over three million Nigerians were physically disabled (Ihedioha, 2015). Reporting the estimate of the Centre for Disabilities and Development Innovation in 2016, Tauna (2018) claimed that about 25 million people were disabled in Nigeria. About 15% of Nigeria's population is living with disabilities (Ewang, 2019). People with disability are exceptional individuals including hearing impaired, visually impaired, speech disordered, multiple handicapped, special mobility impaired among others (Omede & Oguche, 2016). It is a fact that a sizeable proportion of Nigerian population is persons with disabilities. Disability attracts variety of deprivation, as disabled persons tend to have lesser legal protection, educational achievement and suffer extreme poverty as well as poor health and are less likely to take part in social, cultural and economic activities in the society (Haruna, 2017). People with disability are disproportionately poor and have continuously experience different forms of social exclusion (Olaoye, Oduola, Alonge & Emechete, 2017) such that many of them have to take to the streets to beg for alms in order to survive. According to Haruna (2017), disability is both a cause and consequence of poverty. He asserted that poverty renders an individual more vulnerable to disability and disability reinforces and aggravates the pains of poverty. Also, persons with disability are often stigmatised and dealt with in a discriminatory manner (Uromi & Bazagwa, 2014). They often suffer neglect from both family members and those within their neighbourhood. In expressing this fact, Ogunbiyi (2019) said;

In Nigeria, the condition of the physically challenged attracts little or no attention. As a result of this, their right are often violated, excluded and relegated in planning and national development. Without a doubt, physically challenged folks need care, love, protection and special infrastructural provisions to survive in a challenging environment like ours. Unfortunately, in Nigeria they are largely unprotected and

exposed to abuse, discrimination, ignored, stigmatised and exploited by families and society. In most cases, family members see them as shameful creatures. Consequently, most of them often resign to a life of despondency.

Disabled children are often separated from other children in the neighbourhood and are usually teased, mocked and disregarded by others while some experience variety of insult from both the old and the young (Haruna, 2017). Persons with disability tend to suffer in terms of education as many of them could not go to school like other citizens and constitutes a significant proportion of illiterate population in the country (Omede & Oguche, 2016) whereas they are supposed to enjoy the same privileges like other citizens as stipulated in the constitution of Nigeria. Today, there is a global effort directed at facilitating the participation and integration of people with disabilities into the society. Consequently, many disability right movements have been formed, promulgation of disability discrimination laws in many countries and the making of the UN convention on the rights of persons with disabilities, which has contributed to the removal of barriers on disabled persons in many countries of the world (Olaoye *et al.*, 2017). The President of Nigeria on January 23 signed into law the Discrimination Against Persons with Disabilities (Prohibition) Act, 2018 after nine years of relentless advocacy by disability right groups (Ewang, 2019). This is meant to protect the rights of the disabled people and to make them have a life to live. The Act established a National Commission for Persons with Disabilities saddled with the responsibility of ensuring access to education, housing and health care by disabled people and receiving complaints about the violation of their rights as well as legal support to victims.

Economic Neglect of Persons with Disability in Nigeria

Disability has adverse effects on individual as it reduces the extent to which the individual contribute productively to the family, household, community and the society at large (Anjiode, 2010). Despite this, it is largely believed that there is ability in disability. This is evident in the participation and performance of the disabled in various sporting events such as volleyball, soccer, badminton, athletics, weightlifting, table tennis, netball, basketball, billiard, handball in which Nigeria has won so many medals (Eliya & Tsibi,

2014). But in Nigeria today, the persons with disabilities are rarely given opportunity or considered for jobs in the formal sector of the economy. Organisations rarely consider persons with disability for jobs due to the general perception that they are incapacitated and the lack of facilities in the organisations that would enhance the productivity of the disabled as well as the cost. Generally, the formal sector of the economy provides an environment unconducive for the inclusion of the persons with disabilities. This is echoed in the words of Ihedioha (2015) thus,

The social exclusion of the physically challenged in work organisations is further intensified by a hostile physical environment. Organisations with a hostile physical environment have enormous potentials to discourage qualified, skillful and capable physically challenged individuals from expressing interest to be engaged. In such a hostile environment, materials and devices or equipment necessary to enhance their productivity are usually not available. Similarly, the physically challenged are confronted with the inability to access homes, transport, buildings, etc. The general non conducive environment and the cost implication of making the environment conducive may hamper organisations from engaging the physically challenged. All these put together contributes to the exclusion of the physically challenged in work organisations.

About 75 to 90 percent of persons with disability in Nigeria live below the poverty line due to neglect by the society especially their exclusion from paid employment (Anjiode, 2010). This is because of the misconception that persons with disabilities are not well, unable to work and in need of help and pity. Given this state of affair, the government has been responding in a number of ways to promote the employment of the disabled in the formal sector. For instance, the Lagos State Government passed the Lagos State Special People's Law in 2011 to protect persons with disabilities from all forms of discrimination and to give them equal rights and opportunities with the able-bodied people (Ogunbiyi, 2019). The law provided that corporate organisations with up to 100 workers should reserve at least one percent of their workforce for persons with disabilities.

Entrepreneurship for Persons Living with Disability in Nigeria

The importance of small and medium scale enterprises as a source of competition, poverty alleviation, wealth creation, employment generation and private sector development, has been recognised by the government, scholars and non-governmental organisations in Nigeria (Diyoke, 2014). The realisation of this fact laid credence to the inclusion of entrepreneurship studies in the curriculum of our educational institutions. Since entrepreneurship education is crucial to development of entrepreneurial capacity, the Nigerian universities are legally required to include the persons with disabilities in their entrepreneurial programmes with no form of discrimination (Dakung *et al.*, 2019). Entrepreneurship education takes the form of technical education, business education, computer applications, fine and applied arts to mention a few. The inclusion of entrepreneurship education in special need education curriculum will help to unlock the potentials of persons with disabilities, make them financially independent and gainfully employed in the face of high rate of unemployment (Omede & Oguiche, 2016). Entrepreneurship empowerment for people with disabilities tends to help them control their disabilities and take part in production, social and cultural activities, thereby making them active citizens of the country (Akinyemi, 2016). Entrepreneurship is the most accessible way by which persons with disabilities can earn income, be independent and recognised as contributors to the progress of the society (Dhar & Farzana, 2017). So, entrepreneurship helps persons with disability to sustain themselves and live a better lifestyle than the workload, work location, work schedule and other work stressors associated with paid employment (Akinyemi, 2016). Empirical evidences show that entrepreneurs with disabilities recorded roughly the same level of success with the non-disabled entrepreneurs (Dhar & Farzana, 2017). The increasing awareness about the importance of empowering persons with disability economically has stimulated government decisions in the direction of entrepreneurship and empowerment for the physically challenged persons. For instance, the Lagos State Government recently doled out entrepreneurship empowerment fund and other assistive devices to about one thousand persons living with disabilities (Ogunbiyi, 2019). This has been a common approach by the various governments in Nigeria towards empowering persons with disabilities. The government often neglects entrepreneurship intention of persons with disabilities in their approaches. Individuals do not start a

business venture by reflex but intentionally. The success of an entrepreneurship venture depends on the intention and interest of the individual, and this is very important in setting up entrepreneurship programmes for persons with disabilities (Dakung & Munene, 2016). All persons with disabilities cannot be entrepreneurs, while some have entrepreneurship intentions some other may be pleased with working in the formal sector. It is imperative for policy makers to consider the empowerment need of the disabled. Kitching (2014) pointed out some things that policymakers often fail to do in their policy initiatives towards empowering the disabled persons. First, most support programmes of policy makers often aim at increasing the labour market participation of persons with disability either in paid employment or self-employment. They are more concerned about improving labour market participation rather than encouraging entrepreneurship in its real sense. Second, it is not always clear how many persons with disabilities participate in entrepreneurship programme of the government and the extent of their participation. And thirdly, independent evaluators are not often involved in the assessment of the entrepreneurship programme. So, it is often difficult to measure the extent to which the programmes have succeeded. These points are some of the problems facing the implementation and assessment of entrepreneurship programmes in Nigeria.

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CHAPTER

6

FACTORING POPULATION DYNAMICS INTO SUSTAINABLE REGIONAL DEVELOPMENT

Bamidele Olufemi Ifenowo

Abstract

The post-military era Lagos State is a region in a hurry to catch up with the rest of the world's major cities in terms of quality of infrastructure and sustainable development. Successive administration in the state, have over the years concerned themselves with various factors aiding or impeding the realisation of these lofty goals except the population dynamics. Demographic changes such as; fertility changes, population growth rate, morbidity and mortality rate are stirring more rapidly in Lagos compared to other cities in Sub-Saharan Africa. Unbridled population changes and its attendant negative consequences could undermine sustainable regional development efforts and put Lagos in a condition of arrested development. Using available extant literature and secondary data, this paper describes the basic changes in the population of Lagos in recent years, followed by an examination of critical issues regarding the links between demographic factors and defining dimensions of sustainable development with particular emphasis on environmental sustainability. Findings from these studies have come to the undeniable conclusion that population dynamics and environmental changes are intricately linked to sustainable development. This paper concluded by suggesting to development planners and policy makers in Lagos to be cognisant of how the state's rapid population growth and environmental problems could inhibit concerted efforts being made by successive administration to alleviate poverty, ensure food security, preserve the environment, and improve the general well-being of the people.

Keywords: Demographic Changes, Environmental Sustainability, Sustainable Development, Population Dynamics.

1.0 Introduction

Evidence abound in the literature about population-environment nexus. The direct interplay of human population dynamics and environmental change has been a perennial source of discourse by writers and scholars. Despite the evident and continuing interest in population-environment links, the direct interplay of human population dynamics and environmental change is difficult to identify and even more difficult to quantify. On one hand, the argument is frequently voiced that “population” – usually aggregate human population growth – has a substantial (and adverse) effect on environmental quality. On the other hand, some dispute overall claims of the degree of anthropogenic impacts on the environment. In this paper, attempt is made to offer some thoughts about demographic, social dynamics and environmental outcomes.

Every human society especially from the onset of the 21st century has concerned itself with the issue of environmental sustainability. Every country needs to have sufficient quality –in the short and long run—of natural resources and the diversity of plant and animal species, including the human living environment. Since 1987, the term “sustainable development” has been used to denote economic, social, and environmental dimensions of our future survival (WCED, 1987). In this paper, the focus is on environmental sustainability and its relation to unchecked population growth in a mega city.

For several decades, social and behavioural researches have focused on the phenomenon of population dynamics and environmental degradation (e.g., Bonnes & Bonaiuto, 2002; Gardner & Stern, 2002; Kaufmann-Hayoz, 2006; Schmuck & Schulz, 2002; Vlek & Steg 2007; Winter & Koger, 2004). Oskamp (2000), a social science scholar pleaded for social science to address sustainable development, referring to the “threat of population growth, and what he called” the “*trap of overconsumption,*” and the “*tragedy of under conservation.*”

As human populations continue to grow, material consumption intensifies and production technology further expands; as a consequence, the quantity and quality of environmental resources keep steadily decreasing. Following the United Nations Environment Programme (UNEP, 2002) and the European Environment Agency (EEA, 2003, 2005) there is continuing concern about nature fragmentation and loss of biodiversity, shortages in freshwater

availability, over-fishing of the seas, global warming, extreme weather events, urban air pollution, and environmental noise.

Uncontrolled population growth has made poverty in the third world countries to increase and life expectancy to nose dive while the environment continually suffers for this by way of degradation. Unbridled population increase is not only devaluing people but also destructive to the environment.

2.0 Brief Review of Extant Literature and Theoretical Framework

The Rio Declaration agreed at the United Nations Conference on Environment and Development (UNCED), held in 1992 in Rio de Janeiro, Brazil, as well as the Programme of Action agreed at the International Conference on Population and Development (ICPD), held in Cairo, Egypt, in 1994 that human beings should be placed at the centre of development. Both declarations recognise and emphasise the need to promote human wellbeing and higher living standards, but at the same time they stress the need to do so in harmony with nature. To this end, both political declarations suggest policies that promote more sustainable patterns of production and consumption, which is the hallmark of the green economy, and policies that address population dynamics.

2.1 Population Dynamics and its Implications for Sustainable Development

As of April 2019, the world population was estimated to have reached the 7.7 billion mark and, according to most commonly quoted population projections – the medium variant published by the United Nations Population Division – the world population will grow to over 9 billion by midcentury (UN, 2011a). Accordingly, between now and 2050 about 1.5 billion people will be added to the planet. However, contrary to common perceptions, demographic change in the medium- and long-term is not destiny. Whether the world population will indeed grow to over 9 billion by midcentury and level off at about 10 billion by the end of the century, or grow instead to over 10 billion by midcentury and to about 16 billion by the end of the century depends on policies that countries pursue today. The differences between the former (the medium-term variant of the United Nations population projections) and the latter (the high variant of its population projections) is but half a child per woman (UN, 2011a). Every decade of delay in reaching replacement-level fertility implies continued,

significant population growth for decades to come. Globally, over the past decades, life expectancy has been increasing and fertility rates have been falling in most of the developing world, with some exceptions, particularly among the least developed countries (UNFPA, 2011a). But even if fertility were to fall immediately to replacement level, populations would continue to grow for some time. This is explained by the population momentum, or inertia in population growth: Because of high fertility in the past, many countries now have a relatively large number of women in reproductive age, and even if each woman has a relatively small number of children, countries will continue to have a growing population for years to come. Decisions made today have long-term implications.

Other aspects of population dynamics, including changes in age structures and spatial distribution of people, have received even less attention. Some of the reasons for this are (i) the fact that population growth rates in the last two decades have been declining in most of the developed countries and the belief that the “population problem” has already been solved; (ii) the concern that some of the past policies implemented in order to influence population dynamics infringed on fundamental human rights and freedoms; and (iii) the sensitivity of the issues related with population checks.

This is happening even if many countries expressed their concerns about high population growth and have some reproductive health policies in place. A recent survey by the Population Division of the UN’s Department for Economic and Social Affairs has highlighted wide concerns with population dynamics amongst policy makers (Hunter, 2000). More than two-thirds of the governments of the world’s least developed countries have expressed major concerns with high population growth, high fertility and rapid urbanisation.

In order to bring back the population agenda into the sustainable development discussion, there is a need to recognise that:

- Population dynamics have a significant influence on sustainable development;
- Efforts to promote sustainable development that do not address population dynamics have, and will continue to, fail; and,
- Population dynamics are not destiny.

In the developed world, the ability to plan families is taken for granted, but well over 200 million women in the developing world continue to lack access to family planning. Universal access to sexual and reproductive health care and family planning for women of all ages is an essential and integral aspect of their empowerment. The decisions of how many children to have and when to have them are two of the most fundamental and consequential decisions of anybody's life. It affects people's health and education, and can influence their participation in economic, social and political life, their earnings and their living standards (UNFPA, 2010).

Population growth increases environmental pressures. In less industrialised regions of the world the environmental picture is bleak. For example, many communities in Africa, Southern Asia, and South America are strongly dependent on natural ecosystem services such as arable land, water resources, fish stocks, and various forest products. Their day-to-day survival needs make it hard to consider long-term environmental values explicitly. UNEP (2006) reports that in quite a few African countries, poverty has increased and life expectancy has gone down while the environment has deteriorated (see also UNDP, 2005). Poverty is not only devaluing people; it is also destructive for local environments. In the poorer parts of the world, deforestation, lack of clean drinking water, coastal flooding, and heavy urban air pollution are major environmental problems.

3.1 Study Objectives

This study sets out to add its voice in underscoring the danger that an unchecked population growth poses to one of the Millennium Development Goals (MDGs) which is environmental sustainability. It is our assumption that for any developmental project to have a significant impact on the people of Lagos, the government must make concerted effort to address a hitherto neglected factor which determines the success or failure of most of its programmes, namely the population dynamics in Lagos. It is not lost on the researcher that population issues in a multi-cultural and religious settings like Nigeria could be very sensitive. But it is one of the objectives of this paper to draw the attention of the state government to this onerous problem and go on to proffer some possible ways out of the seeming logjam.

3.2 Study Area

This study is limited to Lagos State of Nigeria which is located in the South Western part of the country. Specifically, it is within the coordinates of latitude 6 23' and 6 41' N and longitude 20 42' E and 3 42' E. The total land mass of the state is about 999.6 square kilometres representing 0.4% of Nigeria territorial landmass. It is the smallest state in the federation with 83% of land mass and 17% of water bodies, mainly lagoon and creeks.

3.3 Data Collection Method

This is a non-empirical study based mainly on available and relevant past studies and data. Existing secondary research information which includes material published in research reports and similar documents were utilised. These documents were sourced from public libraries, newspapers, websites, data obtained from previous surveys and from government and non-governmental agencies. The data were harvested, collated, summarised and presented to lend credence to the issue under discussion.

4.0 Results and Discussion

In designing and implementing their various development agenda, successive administrations in Lagos State have failed to understand and account for the demographic changes that are unfolding over the past two decades and how such changes could hinder the achievement of the sustainable development goals. While much remains unknown about the rate of transformation of the global economy or the speed at which technological advancements will be needed to improve efficiency and reduce the world's environmental footprint, changes in population size, composition and spatial distribution in a growing mega city like Lagos are more certain.

Noticeable progress has been made since the inception of the second republic (1979-1983) in the state to improve the infrastructural facilities, sanitation and access to clean drinking water. However, this progress has been uneven within and across the state and regions and the benefits of social and economic progress have not been shared equally. At the same time, there is growing evidence that population growth, combined with a higher level of consumption have resulted in changing patterns of land use, increased energy use and the

depletion of natural resources, with signs of climate change and environmental degradation more visible than ever before.

Environmental sustainability, being the seventh of the Millennium Development Goals (MDGs), has several areas of focus, which include sustainable development, environmental protection from natural occurrences like greenhouse warming, ozone depletion, soil erosion, chemical management, acidic rain and water pollution, among other things. Generally, the ultimate purpose is to improve the lives of the citizenry, so much so that activities of urban settlers will not impact negatively on the life of the rural dwellers and vice versa.

Furthermore, higher population density, associated with urbanisation, brought about by such dynamics as rural-urban migration, decline in mortality and increase in fertility which will alter the age structure of population in ways that, at various stages of the demographic transition, may prove to be either a boost or an additional challenge to the achievement of inclusive and sustainable development.

Table I: Population Growth of Lagos Metropolis Nigerian Cities with population of 750,000 or more in 2007 (in Thousands) 1960-2020. Projected to 2020

City	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005	2007	2010	2015	2020
Abuja	23	29	48	77	125	204	330	526	832	1315	1576	1994	2558	2971
Benin City	83	113	163	233	335	480	689	845	975	1124	1190	1302	1520	1755
Ibadan	510	668	809	980	1186	1436	1739	1993	2236	2509	2628	2835	3270	3752
Ilorin	179	222	268	323	389	457	515	580	653	735	771	835	970	1123
Kaduna	99	173	266	408	628	853	961	1083	1220	1375	1442	1560	1807	2083
Kano	229	343	542	855	1350	1861	2095	2360	2658	2993	3140	3393	3914	4487
Lagos	762	1135	1414	1890	2572	3500	4764	5966	7233	8767	9466	10572	12403	14134
Maiduguri	105	156	216	300	416	531	598	673	758	854	896	969	1125	1301
Ogbomoso	247	333	378	428	485	549	622	704	798	904	951	1031	1199	1386
Port Harcourt	135	198	266	358	482	604	680	766	863	972	1020	1104	1280	1479

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2006 Revision and World Urbanization Prospects: The 2007 Revision*, <http://esa.un.org/unup>

Table I above shows the population trend of Lagos from a paltry 762,000 at independence in 1960 to a whopping 24 million as claimed by the state authorities today. Lagos has enjoyed tremendous growth, reaching 24 million

from just 1.4 million as recently as 1970. The city now generates 30% of Nigeria's total Gross Domestic Product (GDP) which is put at \$136 billion. It is also said to be the Africa's fastest growing city contributing 65% of its manufacturing activities. For 2019, the IMF puts Nigeria's economic growth rate at between 1.9 to 2.8 while Lagos as a standalone is expected to grow its economy at 4.0.

In 1970, the population was 1.4 Million people with its urban population put at 46%. The following census of 1991 puts its population at 5.6 Million with its urban areas accounting for 92%. This is quite high compared to previous censuses. In the 2006 census, the population rose to 9.1 million with its urban development extending beyond the state boundaries and making it a Megacity and one of the largest conurbations in the world.

Unlike the rest of Nigeria, Lagos is a great example of what is possible when the government offers opportunities and other initiatives to its residents. However; all these efforts are being eroded by its teeming and unchecked population. There is yet no law in Nigeria restricting movement within its boundaries. People migrate to places where they feel their socio-economic needs could be met. By 2050, Lagos' population is expected to double, which will make it the 3rd largest city in the world but with less infrastructure than any other large cities of the world.

According to a World Economic Forum (WEF) report, Lagos State receives an inflow of 85 people per hour; today, the state is said to have an estimated 24 million residents. This figure shows it has over three million people more than what it had in 2015.

With rural-urban migration becoming the order of the day, so also comes the attendant challenges, one of which is a higher turnover in waste generation. This easily became apparent in the number of litter black spots, illegal dumpsites, and bad odour, as waste became a problem that the state struggled to manage.

Though megacities like Lagos are engines of economic growth, they have also been saddled with environmental, economic and social burdens. These burdens include growth of slums and informal settlements, unsustainable land use, commuting and traffic problem, climate change arising from energy

consumption and greenhouse gases, poverty, urban violence, lack of infrastructure, poor sanitation and food insecurity, etc.

Table II: Selected World Mega Cities and Level of their Challenges

Problems	Lagos (Nigeria)	Hong Kong(China)	Tokyo(Japan)	Istanbul (Turkey)	London (UK)	Seoul (SouthKorea)	New York(USA)
Informal Settlements	3	0	1	1	0	0	0
Traffic Management	3	2	1	1	1	1	0
Natural Hazards	3	0	1	1	1	1	1
Unclear responsibilities and Mandates	3	0	0	0	0	0	0
Uncoordinated planning	3	0	0	0	0	-	0
Water Management	3	2	1	1	0	0	0
Provision of continuous electric power	3	0	1	0	0	0	0
Visual pollution and garbage disposal	3	2	1	0	0	0	1
Air and water pollution control	3	2	1	0	1	1	1
Population Growth	3	-	-	1	1	-	-
Weighted score	30/30 100%	8/27 29.6%	7/27 25.9%	5/30 16.7%	5/30 16.7%	3/24 12.5%	3/27 11%
Ranking based on magnitude of problem	1	2	3	4	5	6	7

Source: Adapted from Dekolo, Samuel (2012) *Land Use Planning: Panacea for a Sustainable Lagos Mega City*, A conference paper presentation commemorating Unilag @ 50

Table II above seems to illuminate further on the likely problem a big city like Lagos is deemed to encounter when it is beset with constant inflow and unchecked population. Even though population is treated separately as a variable in the table, but it is a truism that all other identified problems emanated from unchecked growing population. That explains why cities like Tokyo, Seoul, New York, Hong Kong, London and Istanbul ranked lower on magnitude of problems confronting the selected mega cities. Lagos' problems are compounded by the fact that "while yearly budgets of other cities with similar megacity status such as New York and Sao Paulo are relatively large, with 2013 budgets of \$70 billion and \$89 billion, Lagos only has an annual budget of about \$3 billion." Large number of undocumented immigrants makes identifying criminals difficult. The presence of large, desperate and unskilled body of migrants that are predominantly averse to public order, especially if it restricts their economic activity such as Okada riding and street trading impacts negatively on security and the environment in general.

Any attempt by the state authorities to exert some elements of control is being perceived in certain quarters as an attempt at ethnic discrimination or given an outright ethnic colouration. This seems to pose serious obstacle to the state government achieving the lofty goals in its kitty for the state.

The growth of unplanned settlements, which over-stretched security resources, provide havens for criminals, just as it leads to loss of control of public spaces to destitute and itinerant migrants who pose environmental challenges.

Another issue, which is considered as impacting negatively on the security and environment of major cities like Lagos, is what may be termed “tyranny of the poor.” There is always some sort of resistance from the poor whenever government intends to embark on certain urban renewal programmes. Whenever the government attempts to institute order, e.g. by urban renewal programmes or restrictions on certain activities, there is resistance, encouraged by NGOs and other groups, ostensibly working on behalf of the poor, that accuse the government of being anti-poor. “The poor” are, therefore, to be left alone to do whatever they like. And these NGOs do not proffer any alternatives or provide capital for improving the lot of the poor.

5.0 Negative Impacts of these Population Factors on Environmental Sustenance

There are many effects of environmental degradation, which the world is contending with today. First and foremost is the impact on human health. Areas exposed to toxic air pollutants can cause respiratory problems like pneumonia and asthma. Millions of people are known to have died due to indirect effects of air pollution.

The other is loss of biodiversity, which is important for maintaining balance of the ecosystem in the form of combating pollution, restoring nutrients, protecting water sources, and stabilising climate. Deforestation, global warming, over population and pollution are few of the major causes for loss of biodiversity.

Ozone Layer Depletion is also another side effect of environmental degradation. Ozone layer is responsible for protecting the earth from harmful ultraviolet rays. The presence of chlorofluorocarbons and hydro chlorofluorocarbons in the

atmosphere is causing the ozone layer to deplete. As it depletes, it emits harmful radiations back to the earth.

The tourism industry equally suffers from environmental degradation as deterioration of environment can be a huge setback for tourism industry that relies on tourists for their daily livelihood. Environmental damage in the form of loss of green cover, loss of biodiversity, huge landfills, increased air and water pollution can be a big turn-off for most tourists.

Noise pollution (or environmental noise) is the displeasing human, animal, or machine-created sound that disrupts the activity or balance of human life. A common form of noise pollution is from transportation, principally motor vehicles.

The source of most noise worldwide is transportation systems, motor vehicle noise, but also including aircraft noise and rail noise. Poor urban planning may give rise to noise pollution, since side-by-side industrial and residential buildings can result in noise pollution in the residential area. Other challenges of urban mobility are longer hours spent on commuting; inadequate public transport and environmental impacts and energy consumption, in which case, pollution of various types become serious impediments to the quality of life and health of the urban population.

Previous researchers revealed that the poor degrade the environment more than the rich. Msthelia (2015) described the urban poor and low-income earners as the major culprits of environmental pollution. Inadequate waste disposal system in mega cities like Lagos has been fingered for the prevalence of certain diseases.

As the commercial and industrial hub of Nigeria and, indeed, West Africa, Lagos naturally runs the risk of environmental hazard. Despite efforts being put in place to sensitise residents on the need to protect the environment, some still prefer to continue to live in the past as they still get involved in actions capable of frustrating government's investment in the sector.

Conclusion

So far attempt had been made to link the problem of uncontrolled population in Lagos State to the degree of environmental degradation witnessed by the state.

Prompted by a recent environmental impact assessment report revealing alarming pollution and toxicity levels and mounting pressure from vocal environmental and health advocates pushing for reforms, the government has actively been exploring avenues to tackle the considerable public health concerns posed by these reports.

Two problems are paramount. Lagos is estimated to produce over 10,000 tons of solid waste daily and millions of gallons of effluent waste pumped directly into the lagoon rendering the waterways effectively an open sewer.

With an estimated population (according to Lagos State Government) of nearly 24 million – and counting, it is apparent that Lagos cannot handle the abundant waste on its own. But one approach which this study has identified as a lasting solution is for the state to start thinking about curbing population growth through fertility control and immigration. There is no law yet in Nigeria restricting movement across the country but the state government can collaborate with feeder states to evolve a way of involving their youths in productive ventures to reduce their nuisance factor.

According to UN Habitat report, Lagos has about 100 slums as at 2004. One could imagine what the number would be by now:

- The poor living condition and lifestyle of majority of Lagosians can be attributable to poverty and the quest for economic survival.
- The high level of environmental degradation in Lagos brought about mainly by its teeming population is negating the concept of sustainable development.
- However, the lifestyle of Lagos inhabitants can be improved to achieve the Millennium Development Goals through enhanced poverty management and sustainable environmental principles through population control.

As individuals, there are many things that we can do to save our planet, our environment and, indeed, ourselves. We must understand and let others also appreciate that the survival of future generation depends on how we treat the environment. So, for Lagos residents, this is the time to join hands with government in a renewed commitment to preserving the environment.

Recommendations

It is with a view to bringing up a more dynamic and holistic approach to environmental protection that this study has come up with the following recommendations.

The Lagos State Government should champion the adoption of a national population policy. This could be done through the sponsorship by one of the Parliamentarians from Lagos of a bill to that effect. This would amount to tackling the problem at the macro level which is expected to rub positively in the long run on Lagos State. The need to work in concert with ‘feeder’ states to control parasitic form of migration is also advocated. By parasitic migration, is meant the type that adds no value to the economy and wellbeing of the state as well as discourage street beggars and urchins. The Lagos State Government will do well to initiate ward to ward and street to street fertility control enlightenment programmes. This can be done in collaboration with International bodies like United National Fund for Population Activities (UNFPA) as well as Planned Parenthood Federation of Nigeria (PPFN). The state ministry of environment primary’s focus is to map out sustainable and economically viable methods to dispose of waste. These plans have come under an initiative tagged, ‘THE CLEANER LAGOS INITIATIVE’ (CLI). The “Cleaner Lagos Initiative aims to protect the environment, human health and social living standards of Lagos residents by promoting a harmonised and holistic approach to the challenges thereby ensuring improved operational efficiency. The Cleaner Lagos Initiative should be embarked upon with more vigour. The government should quit politicisation currently plaguing the cleaning of the environment and reduction of environmental degradation.

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CHAPTER

7

POVERTY AND INCOME DISTRIBUTION IN LAGOS STATE INFORMAL SECTOR WITH SPECIAL REFERENCE TO AGEGE AND ALIMOSHO LOCAL GOVERNMENTS

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Abstract

This study examines poverty incidence in Lagos State. Agege and Alimosho Local Government Areas (LGAs) were used as case studies. The United Nations has tagged Nigeria as a country with the largest number of poorest people in the world. Poverty is a significant threat to Nigeria's prosperity and to the population of over 200 million people. In the case of Lagos State, poverty may be on the rise because for almost two decades, the influx of people into the city from other states of the federation shows no sign of lessening. Majority of the people come to seek "greener pasture". Fortunately, the informal sector appears to have some degrees of absorbent capacity through the provision of employment or job opportunities. The descriptive method of research by collecting primary data via questionnaires distributed at various locations in each of the two LGAs was utilised. The research findings reveal a high proclivity towards relocation to Lagos State for economic reasons. It was discovered that Lagos offers higher wage income than other states in Nigeria. This serves as a pull factor but consequently inducing congestion and deplorable living conditions. However, it appears that the legal power to halt or reduce immigration into Lagos is outside the Lagos State Government's jurisdiction. The study thus, suggests an increase in Federal Government's efforts to alleviate poverty by providing employment opportunities in other states of the federation. Like Lagos State, each State should also embark on developmental projects such as roads and infrastructure to complement the Federal Government's effort. These will go a long way to employ and occupy people and eventually, reduce unguided influx into Lagos.

Key words: Poverty, Informal Sector, Migration, Government Projects, Primary Data.
JEL Classification Code: I3, I32, P46

1. Introduction

In recent time, the United Nations (UN) had declared Nigeria a poverty centre of the world or one of the countries with the largest population of poorest people. Ideally, this is not supposed to be so because Nigeria is a land flowing with milk and honey and so, almost every citizen should live above the poverty line. In some parts of the country, it is not only that the people are getting poorer, but they live in abject poverty and it seems there is no hope of the poverty ending soon. Nigeria has been described as a paradox in 1996 by the World Bank, “the paradox is that the poverty level in Nigeria contradicts the country’s immense wealth. Among other things, the country is enormously endowed with human, agricultural, petroleum, gas, and large untapped solid mineral resources” (Obadan, 2001).

When one looks at the social life and most importantly income of some Nigerians relative to minimum living standard required, it is ridiculous how they still manage to eke out a living. In other words, individual personal income, falling below sustainability, can be a major propelling factor in poverty incidence. It appears most people, whether employees or self-employed, earn unsustainable income. That is, they earn income that is below the (UN) poverty line of about \$2 per day. Even though such income can barely sustain a person, often, an entire family of, for instance, seven, has to depend on the income for daily survival. This might be one of the reasons why parents engage their children in street hawking and child labour to augment the family income.

In Lagos State, poverty incidence appears to be increasing on daily basis. In recent time, there have been unguided immigrants from other states of the federation seeking greener pastures in the city. “The issue of urban poverty in Nigeria as exemplified by the situation in Lagos being the commercial nerve centre of Nigeria has been aggravated by high rate of rural urban migration coupled with the inability of the urban areas to create jobs for the immigrants” (Olajide, 2010). The fact is that when people seek intra-state migration in Nigeria, Lagos State is the most preferred point of destination. This might be because of the city being located close to the harbour with many industrial

agglomerations that offers white collar jobs. Unfortunately, the days of white or blue-collar jobs seems to have gone, only few of such jobs are available in the 21st Century. As a result, most people must find jobs in the informal sector. Unfortunately, the informal sector jobs appear to have been saturated leading to self-employment being entrenched in the sector. In Lagos State, most informal sector's dwellers, in a bid to defeat unemployment, engage in any job including street hawking, daily-paid-job, and illicit activities like gambling, drug trafficking and stealing.

With the rising number of Nigerians from other states of the federation and also noticeable number of foreigners mainly from neighbouring countries trooping in, Lagos tends towards becoming the city with the largest number of unemployed people in the world by year 2030. Majority of these might be trapped in the informal sector. This is a serious problem requiring conscientious attention. In Obadan (2001), some of the causes of poverty were identified as corruption, destruction of public properties designed to ease poverty and poor implementation of poverty alleviation programmes. The greater part of his work was dedicated to suggesting solutions that would enhance government efforts generally for the entire nation. Much of the issues and suggestions raised were similar to the earlier work of Odulana and Olomajeye (1999). Deedan and Onoja's (2015) work was based on programmes to alleviate poverty for women in Port Harcourt, Nigeria. None of these works addressed the issue of income level relative to poverty which, in some way appears to be an underpinning factor. In Musa (2020), it was discovered that relatively higher income of informal sector employees in Lagos is a significant factor inducing the influx of people into Lagos.

However, it seems the alacrity in the migration is becoming intensified by the day which requires another thorough examination. In recent months, more than before, noticeable number of people have been witnessed arriving at Lagos and seeking menial jobs which in most cases might be unavailable. Therefore, it is necessary to dig deeper into the likely consequences of impending poverty lurking around with a view to cushioning such mass movement. Therefore, the thrust of this research is to investigate poverty incidence and average income of urban informal sector workers relative to an ideal life-sustainable income, and to point to undesirable outcomes of this unchanging attitude. Unlike Musa

(2020) which focused on the entire Lagos State, this study focuses on the entire former Agege Local Government Area (LGA) of Lagos State which is now Agege and Alimosho (LGAs). This area also covers some parts of Ifako-Ijaye (LGA). These areas are selected for the fact that they appear to be the dwelling places of many poor people. Reasons for high concentration of the extremely poor people might be because they offer relatively cheaper accommodation, affordable rent and low maintenance fee. Also, they appear to be safe for dwellings and good for petty or small scale businesses than other parts of the state.

2. Conceptual Issues

The concept of poverty and inequality are related. Whenever poverty is mentioned, inequality must be reflected as well. Sen (1973) argued that with regards to average income level, a higher level of inequality will tend to be associated with a higher level of poverty. He added that poverty is also associated with unemployment, a fact that has been corroborated by the International Labour Organisation (ILO). The United Nations (UN, 2006) viewed poverty as a condition of deprivation in terms of physical, economic, social, cultural and political status whereby an individual is incapable of meeting the minimum standard of living. Poverty is a multidimensional problem with many phases (USAID, 2006) which can be seen as absolute particularly when the people are unable to attain basic things of life like food, housing and good health. It includes lack of the means of gaining access to financial and social aspect of life as well as freedom from servitude and the ability to choose. Thorbecke (2004) viewed poverty as being vulnerable. He observed the time-path of income for two households and noted that intertemporal choice between the two households' income and consumption pattern may help to some extent to measure how much poverty each has experienced.

The UN (2006) reiterated that poverty is a human condition characterised by sustained or chronic deprivation of resources, capabilities, choices, security and power necessary for the enjoyment of an adequate standard of living and other civil, cultural, economic, political and social right. Poverty tends to be a vicious cycle whereby it is self-perpetuating. The serious case is that it appears that the more strategies poor nations devised to combat poverty, the more poverty rears

its ugly head. To devise an appropriate poverty reduction strategy, it is not enough to merely know how many people are poor, it is critically important to know where the poor live, what conditions they live in, and how they earn a living (World Bank, 2018). In addition, with the level of poverty in Nigeria, it might be necessary to carry out a research survey to ascertain the socio-economic factors such as reasons for migration, the hope of a better living standard and desirable income level among others.

Conceptual Issues about the Informal Sector

The informal sector is crucial to development of an economy. Although, in the advanced countries, the sector may constitute about 8.0% (or less) of economic activities, it is over 50% in a developing country like Nigeria (Mordi, Englama and Adebuseyi, 2010). The general believe is that as a country drives fast to development, informal sector activities tends to give way to formal and organised activities. Conversely, the role of informal activities in the economy increases during economic downturns and periods of economic adjustments and transitions (Mordi *et al.*, 2010). By definition, informal economy refers to all economic events currently unregistered and which function outside official regulation. They are production and distribution of goods and services that are not recorded in a country's System of National Accounts (SNA). The fact is that in developing countries, the informal sector represents a vital part of national economy for production, employment and income generation.

Moreover, the informal sector is a key strategy to survival because it generates quick employment opportunities. This is necessary where unemployment benefits are scarce and wages and pension are inadequate to meet the minimum standard of living. One of the major challenges encountered by the authority is how to measure the volume of informal sector's activities in the SNA. A number of economic activities unrecorded include black or underground market such as drug trafficking, human trafficking, money laundering and smuggling. However, lawful informal sector activities such as street hawking, petty trading, daily paid jobs and artisan profession are also not captured in the SNA. The fact is that a large number of Nigerians are employed in the informal sector, majority of whom are relatively poor.

Poverty might be as a result of relatively low income earnings, though few members of the informal sector might earn higher than those in the formal sector. For instance, a minimum monthly wage of ₦18,000 or ₦30,000 as the case may be, in the formal sector might be too low for life sustainability in any part of Nigeria, let alone Lagos, whereas some urban informal sector employees (like farmers and mega city shop owners) might earn above the national minimum wage. Sometimes, these income differentials play significant role in defining poverty incidence and determining who is poor or not. As a result, it is necessary to clearly identify with the heterogeneity of income earners. This study is not oblivious of the fact that some informal sector operators earn greater than the formal sector. Taking cognisance of income variety in the informal sector in Lagos, an attempt is made at investigating the income distribution and social economic life of employees or workers in small scale activities in the informal sector and inferences were made concerning their income and life satisfaction derivable. The research will obtain samples from two Local Governments in Lagos State which include Agege LGA and Alimosho LGA. The results obtained will be used to generalise for the entire Lagos. The two LGAs appear to be dwelling places of many poor people. This may be as a result of the fact that the two LGAs offer cheaper accommodation and small scale business opportunities among others. It is undisputed that Lagos is the Nigerian commercial hub and it is believed that, it is the most populous state in Nigeria (based on Lagos State Government Population Survey, 2006). In fact, a pre-survey carried out by us revealed that Lagos is the ultimate destination of many interstate migrants.

3. Literature Review

A number of literatures have viewed poverty from a multidimensional concept angle. While some have viewed poverty as being relative to income and inequality, others have viewed the social evil as relative to programmes and projects aiming at alleviating poverty. Also, some have examined poverty relative to living condition and urban social life. Sen (1973) examine a new conceptual issue in poverty measurement in relations to inequality and unemployment. He argued that poverty is superior to both the usual head count and standard measure of relative inequality. He concluded that the data available to measure poverty (in India), using the Lorenz Curve and Gini-coefficient, as always being performed, are not sufficient enough. Kumar, Gore

and Sitaramam (1993) examine poverty measurement in a new dimension that is based on actual consumption behaviour of the people rather than arbitrary choice of poverty line or deprivation function. Their paper also highlighted the importance of reliability concept and risk assessment in translating consumption deprivation into poverty measure. Like Sen (1973), they conclude that data and statistical problem are significant hindrances to reliable poverty measurement. Over the years, the United Nations (UN) have devised variety of methods to resolve measurement issue in poverty relative to regions and data availability. A review of these is beyond the scope of this study, so, a less complicated and direct method such as visiting the poor where they work or live was utilised.

In another view, poverty has been examined relative to programmes and projects to reduce the effects. For instance, Obadan, (2001) reviewed various poverty alleviation programmes in Nigeria. He noted that Nigeria retrogressed to become one of the 25 poorest countries at the threshold of the twenty-first century whereas she was among the richest 50 in the early-1970s. He added that the rise in poverty incidence both within and among locations did not compensate for enormous resources and efforts committed on poverty-related programmes and schemes in the country, in other words, it means “the programmes and schemes were ineffective and ineffectual”. He concluded poverty alleviation should be incorporated in the national policy plans and “integrated into the country’s overall development/policy management framework”. Ogwumike (2002) and Oshewolo (2010) gave a descriptive analysis of poverty in Nigeria. While Ogwumike discussed the policy to alleviate poverty and the need to find the best approach to measure poverty as a probable solution, Oshewolo addressed the case of galloping poverty caused by corruption and poor implementation of policies.

Odulana and Olomajeye (1999) as well as Deedam and Onoja, (2015) also worked on the effect of poverty alleviation programmes in Nigeria. While the study of the first was based on the entire country, the latter was based on women in Port-Harcourt. They both observed that the effect of poverty reduction is weak because of the fact that there were not enough data, programmes were inadequate to meet the people’s need and were poorly coordinated. While Odulana and Olomajeye concluded on the existence of data, provision of

opportunities for accessibility of programmes and benefits; Odulana and Olomajeye recommended the establishment of entrepreneurship capacity-building programmes to enhance the women's optimal input in poverty eradication programme. Zaid (2020) and Samuel (2020) examined poverty effects on Lagos social miscreant called "area boys" and the role of libraries in poverty reduction. The studies deplore the poor state of the youth and economic deprivation they have to face. For the youth in Lagos, they suggested inclusive programmes, information dissemination and government involvement in massive job provision to enhance their daily living endeavour.

Nevertheless, it appears these authors have left out a critical part of poverty. The seemingly prevailing income structure of an average Nigerian particularly in the urban informal sector and the linkage this might have on poverty and inequality are not adequately addressed. In addition, issues concerning high rate of unemployment appeared to be a critical factor overlooked in their studies. For instance, it is generally assumed that most urban informal sector employee are either underemployed or employed without sustainable income. This condition is believed to have negative consequences on poverty increase. However, unemployment may not necessarily aggravate poverty elsewhere. Statistical evidence revealed that there are quite a good number of unemployed people in other parts of the world leaving comfortably above poverty line. But it appears the informal sector unemployment is driving poverty in Lagos State and that unemployment rate might rise because too many people migrate to Lagos with the hope of seeking jobs. Therefore, some social aspects of poverty such as job opportunities, income status and living condition need critical re-examination in this study.

Lagos State is the central focus of this study. The reason is that Lagos is the commercial hub of Nigeria and seemingly the number one destination of rural-urban migrants. The critical question is how are urban informal sector's average income, well-being and hope of better life connected to poverty in Lagos State? Or, is there any poverty syndrome in Lagos at all? The objective of the study is to examine poverty incidence in Lagos State particularly now that the United Nations in 2018 identified Nigeria as a nation with the highest number of poorest people on earth. Descriptive method, using primary data, will be employed to achieve the study's objective. The data will be obtained via

distribution of questionnaires to secure direct information from the urban informal sector workers or dwellers in Lagos State.

4. Some Stylised Facts on Poverty in Nigeria

4.1 In the 1990s development literature, economic growth took a new dimension by including poverty and inequality reduction as part of growth benefit. Studies suggest that countries that made noticeable progress on poverty reduction were those which recorded fast and high growth rates (World Bank, 2000; Dollar and Kraay 2000; Aigbokhan, 2008). It is generally agreed that income matters when discussing poverty reduction. For instance, low and economically unsustainable income alone are enough to aggravate poverty incidence. Moreover, in recent times, relatively low income in the urban informal sector has been a cause for concern. This is because there has been widespread idea that urbanisation is fast increasing. The United Nations (2006) stated that at the end of year 2000 about half the world's population lived in urban areas; in 1975 this was only 28%. In 1970, developing countries level of urbanisation was 25%. In 1994, it had increased to 37% and it is projected to be 57% in 2025. To make these worse, average population growth rate in the developing countries is 4%. This means that developing countries would add more to the world population by year 2050 and majority of these would live in the urban centres. Since rapid population growth is hardly counterbalanced by rapid provision of utilities, the Malthusian theory (1798) had stated that this may result in population being checked by negative events such as war, famine and diseases. Therefore, with high inclination to rural-urban migration in developing countries with no adequate provision for the needs of the migrants, it appears poverty would be on the increase, especially, in the urban centres.

In other words, one can summarise that poverty is a complex multidimensional problem that cast long shadows over many areas of existence. No single indicator can capture all the aspects of poverty. It is a global phenomenon which affects continents, nations and people differently. It affects people in various depth and levels at different times and phase of existence. The National Bureau of Statistics (NBS, 2014) defined poverty based on the availability of certain basic needs such as food, clothing, shelter, sanitation facilities, pipe-borne water, education, good healthcare and access to information. In other words,

poverty is the condition that is said to exist when the people lack the means to satisfy all these basic needs.

Table 4.1: Seven Most Populous Countries' GDP Per Capita in Currency of US Dollar ('000)

Year	Nigeria	Brazil	China	India	Indonesia	Pakistan	USA
2000-2003	0.43	3.19	1.11	0.47	0.87	0.53	37.89
2004-2007	0.90	5.39	2.01	0.78	1.46	0.80	45.18
2008-2011	1.83	10.43	4.38	1.22	2.79	1.08	48.39
2012-2016	2.76	10.79	7.46	1.56	3.54	1.35	54.50
2017-2020	2.22	10.72	7.11	1.32	3.51	1.1	53.31

Source: WDI, 2020

The per capita gross domestic product (GDP) of the most populous countries in the world is shown on Table 4.1. Nigeria ranks number seven after China, India, United States, Indonesia, Brazil and Pakistan. From year 2000 to 2016, Nigeria has been one of the three countries with the lowest GDP per capita. This also include India and Pakistan. As shown in the table, in the past two decades, Nigeria's per capita income appears to be slightly higher than India and Pakistan. However, it also shows a slight decline between 2017 and 2020. This may be the effects of decreased productivity in the wake of the Covid-19 pandemic which ravaged countries all over the world. Despite Nigeria's robust GDP over India and Pakistan, it is surprising that the country continues to have the highest number of poorest people in the world. This means that with Nigeria's level of per capita income relative to India and Pakistan, Nigeria ought not to have such a large number of people living in extreme poverty.

4.2 Lagos and Poverty Incidence

Lagos appears to be the first choice of destination of rural-urban migrants in Nigeria. This may be for economic reasons. But the trend started during the oil boom era of early 1970s which later degenerated into Dutch Disease in the late 1970s. Perhaps, one of the consequences of crude oil discovery in Nigeria is the maroon of rural-urban migrants in the city when oil prices showed downward movement and adversely affected oil exporting countries' economies in the 1980s. In other words, rural dwellers who abandoned peasantry or blue-collar jobs for the urban white-collar job were implicitly trapped in the major cities

and eventually became unemployed or underemployed due to economic downturn. The obvious fact, however, is that rural-urban migration is a common social issue in the world. In Africa and in Nigeria, Lagos State's situation seems peculiar considering the relatively small land area inhabited by about 25 million people, three times larger than its carrying capacity (Lagos State Government, 2017).

It is generally believed that Lagos has become the first choice of migrants mainly for economic and security reasons. For two decades, the inter-state movement to Lagos State appears to have been on the rise more than every other state capital and major cities in Nigeria. The Lagos State Government has reiterated that even though the city is smaller in size, it is predicted to receive more migrants both from other states and neighbouring countries like Niger, Chad, Benin and Togo. This, as predicted, might make the State one of the appallingly congested cities in the world within the next two decades. The problem lies in what happens to the population when infrastructures and other basic needs of life are unavailable. Established facts are that crowded cities are usually associated with low standard of living, social evils and insecurity which are implicit early signs of population explosion. This is usually further worsened by large income differentials and high rate of inequality as most migrants might end up in the informal sector often characterised by small-scale unorganised businesses and undefined wage contracts and low income.

5. Research Design and Summary of Research Survey

The focus of the survey is on employee or self-employed workers in Lagos with no formal wages or salaries. The survey was based on two local governments, Agege and Alimosho Local Governments of Lagos State. Interviewees include small scale business owners engaged in legal but unorganised activities, street hawkers and other various artisans, drivers, road side traders, mini kiosk and those on daily paid labour services. The objective is to gain direct information from each individual in this sector from different locations in the two local governments. It is important to reiterate that these two LGA may, as well, represent the situation of nearly all the poor in the Lagos informal sector. Questionnaires were distributed randomly in places characterised with cluster of targeted respondents. The research survey covered five selected areas in each LGA tagged location A, B, C, D and E. Agege LGA include Moshalashi Alhaja,

Otubu Bus Stop, Isale Oja, Pen Cinema and Idi Mangoro. Alimosho LGA comprise Iyana-Ipaja Main Bus Stop, Ikotun, Idimu Main Market, Shasha and Ayobo. Details of the exact locations covered in each centre are stated in Appendix 3 and 4. A random selection of surveyed centres is considered though the homogeneity of Lagos metropolis was recognised. Following a pre-survey, it was observed that there was concentration of respondents in the selected areas particularly during working hours of the day. The questionnaires were distributed to each respondent to obtain information concerning the hope of Lagos prosperity, personal disposable income and opinion about their ideal living condition in Lagos State.

In all, 200 questionnaires were distributed in each LGA. This enhanced large and more reliable data that gave more conclusive facts. Nevertheless, from Agege LGA, 199 questionnaires were returned, 198 were returned from Alimosho LGA. Results of the survey, based on income only, are summarised in Table 5.1 and 5.2. The broader results based on socio-economic life are presented in the summary in the Appendix.

Table 5.1: Summary of Income Structure of Informal Sector Employees in Lagos State (Agege Local Government Area)

Average monthly income of an individual in the informal sector (Agege LGA).	Below ₦15,000	₦16,000 to ₦25,000	₦25,000 to ₦30,000	₦31,000 to ₦40,000	₦41,000 to ₦50,000	₦51,000 and above	Number of Respondents
	1%	28%	44%	16%	6%	5%	199

Table 5.2: Summary of Income Structure of Informal Sector Employees in Lagos State (Alimosho Local Government Area)

Average monthly income of an individual in the informal sector (Alimosho LGA).	Below ₦10,000	₦16,000 to ₦25,000	₦25,000 to ₦30,000	₦31,000 to ₦40,000	₦41,000 to ₦50,000	₦51,000 and above	Number of Respondents
	2%	26%	38%	28%	4%	2%	198

Tables 5.1 and 5.2 reveal the summary of income structure in Agege and Alimosho LGA respectively. It can be seen from each table that majority of the informal sector employees, 71% and 72% respondents from Agege and Alimosho earn above the official minimum wage of ₦18,000, or the United Nation's benchmark for absolute poverty (\$2 dollars a day or less) or extreme

poverty (\$1.25 a day). This is also higher than the minimum wage set by the government. In comparison with what is obtainable outside Lagos, this is relatively higher. This suggests the reason for inter-state migration in Nigeria with Lagos at the receiving end. In fact, many respondents affirmed that their current level of income in Lagos was much higher than what would have been obtainable in their various states of origin.

From Appendix 2, information obtained from the respondents varied concerning their states of origin, awareness of “likely” Lagos over-population, and reasons for influx into Lagos.

The result summary from the two local governments show that 63% disagreed that most informal sector workers are of Lagos origin, and 68% agreed that most informal sector workers actually migrated into Lagos State from other states in the country. 76% are of the opinion that most people migrated to Lagos for economic reason. Yet from the research survey, it appears many have not benefited from poverty alleviation programmes either from the state or federal government. It is quite amazing that despite the rising level of poverty in the country, majority, about 89%, are unaware that Lagos is overpopulated. In fact, many, not less than 61%, agreed that Lagos can still accommodate more people. 68% affirmed that more people will definitely migrate to Lagos. Overall, with relatively higher income guaranteed in the city, it seems the people are undaunted in the decision to seek a living in Lagos.

68% and 66% respectively for Agege and Alimosho, agreed that majority of the informal sector workers migrated from other states of the federation. The survey also revealed that relatively, average income earnings is higher in Agege than Alimosho LGA. Economic and physical development in Agege LGA seems more vibrant than Alimosho LGA. Besides, Agege LGA has been a city centre of businesses and entrepreneurship since the mid-1970s.

5. Summary and Conclusion

In this study, we have been able to examine poverty incidence in Nigeria using both primary and secondary data. The United Nations has tagged Nigeria as the home of the poorest people on earth. This is because there are more people in Nigeria facing extreme poverty and all efforts made by government and foreign

donors seem ineffective. Due to the lack of needed attention, poverty tends to ravage Nigerian population of over 200 million people. The study focuses on two local governments in Lagos State - Agege LGA and Alimosho LGA. Samples were collected by seeking information about the socio-economic life of informal sector employees, employers and small scale business owners. The migrants assumed the sector offers easy jobs and relatively higher income. The migrants refer to those who leave their state of origin for Lagos State. Between the two LGAs where samples were taken, income level and living condition are higher in Alimosho than Agege, but Agege is more of a larger business hub with larger and extremely poor people. Making inferences from the entire Lagos, we found that the hope of job opportunities and higher income might be the reasons for ceaseless migration into the state. In the past two decades, it appears the state has recorded large number of inter-state migrants employed mainly in the informal sector. The sector is considered to have generated significant employment opportunities and thereby has contributed to poverty alleviation. However, the attractiveness and robustness of the sector, offering many people employment opportunities in Lagos has led to ostensible over-population and urbanisation issues like congestion and social evils. Moreover, compliance with rules and regulations in terms of tax and labour laws appears to have been compromised in the informal sector. Other ugly characteristics include assumed wage earnings in the sector which usually falls below the minimum sustainable wage rate and often no assurance of job security and inadequate government support.

The study outcome reveals that there will be continuous influx into Lagos State as long as the people perceive Lagos as a place of employment opportunities relative to other states of the federation. As unemployment rises and aggravates poverty incidence, influx into Lagos tends to rise because Lagos State appeals to the non-indigenes, as a city that can offer employment opportunities and higher wages or income. Based on this study's findings, it is suggested that federal government should increase poverty alleviation programmes, and provide employment opportunities in other states of Nigeria. This will reduce the influx into Lagos. To buttress government initiative, the poor in each state should be integrated into variety of projects to enhance inclusiveness. Currently, Lagos State Government is performing commendably in inclusive programmes by employing Lagos dwellers in roads and other construction

projects. Quite a good number of informal sector labour force are engaged as well. Several similar developmental projects should be undertaken by various state governments. By this, when people are engaged in their various states, they will be less inclined to seek greener pastures in Lagos State.

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APPENDIX 1

Research Survey Expressed in Percentage Rating

Individual Average Monthly Income (Agege and Alimosho LGA)

What is your net average monthly income? Below ₦15,000 ₦16,000 to ₦25,000 ₦25,000 to ₦30,000 ₦31,000 to ₦40,000 ₦41,000 to ₦50,000 ₦51,000 and above

Please tick in the empty box.

APPENDIX 2

Summary of Questionnaires Administered in the Research Survey of Agege and Alimosho LGAs

	STATEMENTS	SA (%)	A (%)	U (%)	D (%)	SD (%)	Total	TNR
1.	Most Informal Sector employees are of Lagos origin.	12	24	1	37	26	100	400
2.	Most Informal sector employees migrated into Lagos State from other states in Nigeria.	24	44	13	09	10	100	399
3.	Most people left their states of origin to seek greener pastures in Lagos State.	52	38	2	6	2	100	398
4.	Most people you know, like your friends and people in your locality, left their states of origin for Lagos for economic reasons.	27	49	1	13	10	100	399
5.	You think you have stayed long enough in Lagos to attain prosperity and improve your standard of living.	55	38	2	3	2	100	396
6.	When you were leaving your state of origin for Lagos, you believed Lagos would bring you greater prosperity.	44	45	1	1	7	100	399
7.	Lagos has been able to meet your aspirations to some extent.	2	17	6	39	36	100	397
8.	Your present level of income is enough to sustain you alone.	21	24	1	26	28	100	396
9.	Your present level of income is enough to sustain you and your family.	3	12	0	45	40	100	398
10.	Many poor people have benefited from at least one particular government poverty alleviation programme in Lagos State, particularly in the LGA.	3	2	15	35	45	100	396
11.	Lagos has attained the level of over-population.	6	4	1	40	49	100	399
12.	Lagos can still accommodate more people.	29	32	2	17	20	100	397
13.	In spite of the economic situation in Lagos, still, more people will find their way to the city.	28	40	4	18	28	100	398

Note: SA = Strongly Agree; A = Agree; U = Undecided; DA = Disagree; SD = Strongly Disagree. TNR = Total number of responses to each question.

APPENDIX 3

Research Survey Area (Agege LGA)

Location A	Location B	Location C	Location D	Location E
Moshalashi Alhaja	OtubuBus Stop	Isale Oja	Pen Cinema	Idi Mangoro
Moshalashi Alhaja	Otubu Bus Stop,	Isale Oja	Pen Cinema Bus-	Idi Magoro Bus
Mosque corridor,	Kajola Street,	Market, Ashade	Stop, Iju Road,	Stop, Danjuma,
Agege Post	Morcas Mosque,	Market	Railway line Police	Ile Zik, Punch.
Office, Rail Way	Agege Stadium.		Post, New Overhead	
Crossing			Bridge, Oke Koto.	
Alimosho LGA comprise Iyana-Ipaja Main Bus Stop, Ikotun, Idimu Main Market, Shasha and Ayobo.				

APPENDIX 4

Research Survey Area (Alimosho LGA)

Location A	Location B	Location C	Location D	Location E
Iyana-Ipaja Main Bus Stop	Ikotun	Idimu main Market	Shasha	Ayobo
Iyana-Ipaja Bus Stop, Alagbaa, Iyana-Ipaja Garage, Imoson, Alimosho Central Mosque	Governor's Road, Ikotun Roundabout, Ijegun Market, Igando Road	Idimu Market, Synagogue of All Nations Church, Egbe Cele Bus Stop	Kings Court Estate, Shasha Road, Binta Schools,	Anchor University Area, Jakande Estate, Gboluwaga Area, Church Bus Stop.

APPENDIX 5

Sample Questionnaire Used for the Research Survey

**UNIVERSITY OF LAGOS
DEPARTMENT OF ECONOMICS
FACULTY OF SOCIAL SCIENCES**

Dear Respondent,

Lagos State is one of the destinations of rural-urban migrants in Nigeria. In the last two decades, the movement to Lagos State from other states in Nigeria appears to have been on the increase. In spite of its relatively small size, it has been predicted that migration or relocation to Lagos will increase in the next decade. This might lead to population explosion, dearth in utilities and increase in social evils. These might be aggravated by low earning, particularly, in the informal sector often not adequately covered in government sphere of developmental planning. Therefore, the objective of this questionnaire is to obtain information about socio-economic life of the informal sector employee, worker or business owner and also to collect information on their average income.

As a worker, entrepreneur or business person in the informal sector in Lagos State, you are required to state your necessary information on average monthly income (salaries or wages as the case may be) and questions concerning your socio-economic life in Lagos. This will help the researcher to make unbiased and realistic conclusion about average income earning and welfare attainable. Your sincere and accurate response to each question will be highly appreciated. You are not required to disclose personal identity such as name and any position held. By answering these questions, you will provide us with in-depth knowledge and information that will enable us to make useful policy recommendations or suggestions about one of the major reasons why Lagos might probably be one of the major cities in the world with the poorest people. All answers are confidential and no one will be able to identify you from information you provide.

Section A

Please tick as appropriate:

Gender: Male () Female ()

Age: 16-49 () 50-64 () 65 and above ()

SECTION B

Information on Size Distribution of Income of Individuals in the Informal Sector, Lagos State

The following statements create permissive atmosphere to state or comment or express your views about your average monthly income and some aspects of your Lagos prosperity pursuit.

Please tick as appropriate in the box.

Average Monthly Income of an Individual

What is your net average monthly income? Below ₦15,000 ₦16,000 to ₦25,000 ₦25,000 to ₦30,000 ₦31,000 to ₦40,000 ₦41,000 to ₦50,000 ₦51,000 and above

Tick as appropriate in the box provided.

Note: SA = Strongly Agree; A = Agree; U = Undecided; DA = Disagree; SD = Strongly Disagree.

s/n	STATEMENTS	SA 1	A 2	U 3	D 4	SD 5
1.	Most Informal Sector employees are of Lagos origin.					
2.	Most Informal sector employees migrated into Lagos State from other states in Nigeria.					
3.	Most people left their states of origin to seek greener pastures in Lagos State.					
4.	Most people you know, like your friends and people in your locality, left their states of origin for Lagos for economic reasons.					
5.	You think you have stayed long enough in Lagos to attain prosperity and improve your standard of living.					
6.	When you were leaving your state of origin for Lagos, you believed Lagos would bring you greater prosperity.					
7.	Lagos has been able to meet your aspirations to some extent.					
8.	Your present level of income is enough to sustain you alone.					
9.	Your present level of income is enough to sustain you and your family.					
10.	Many poor people have benefited from at least one particular government poverty alleviation programme in Lagos State, particularly in the LGA.					
11.	Lagos has attained the level of over-population.					
12.	Lagos can still accommodate more people.					
13.	In spite of the Economic situation in Lagos, still, more people will find their way to the city.					

CHAPTER

8

INTERACTIVE MECHANISMS OF PUBLIC SPENDING AND HUMAN CAPITAL OUTCOMES ON SUSTAINABLE ECONOMIC GROWTH IN NIGERIA

Saibu Olufemi, Babarinde Aderonke Oyefunke &
Lawanson Oluwakemi

Abstract

The issue of human capital outcomes and its implication for sustainable growth process of the economy has always been topical in policy and academic discourse. More so, the controversy over the role of government has added a new dimension to this issue. While existing studies had dwelt much on significance of human capital development on economic growth, what constitutes appropriate measure of human capital development as well as the mechanism by which different measures of human capital outcomes are interdependent remained sparsely explored. The interactive effects of public spending and human capital outcomes (education and health outcomes) on economic growth in Nigeria for the period spanning 1970 to 2020 is examined based on the Fully Modified Ordinary Least Squares (FMOLS) technique. The study observed that the interactive terms of both education and health outcomes were significant in translating to sustainable economic growth. The study also found that education requires higher amount than health because of its wider coverage. Nonetheless, health and education spending were found to be complements and this gives the government opportunity to embark on various mixes of financing policies. The two social sectors require increased budget allocation.

Keywords: Human Capital, Economic Growth, Health, Education, Government Spending.

JEL Classification Code: O15, O30, O43, J24

1. Introduction

Over the years, there have been increased emphasis and pressure on developing countries both by international institutions and agencies as well as indigenous policymakers to develop their human capital capacity as a strategy to stimulate economic growth (Lopez-Bazo and Motellon, 2012; Prasetyo, 2019). Some countries like Korea, Singapore and Taiwan have attained economic growth and development in the past two decades and have been able to catch up with the economic development of advanced economies through human capital. With no doubt, the human capital development has contributed significantly to economic growth through higher education, training and skills acquisition (Han and Lee, 2019). It then follows logically that “high, quality, and fundamentally sustainable economic growth must be built on four main pillars namely, human capital, social capital, institutions and entrepreneurship in order to be more successful in reducing development problems: unemployment, poverty and income inequality” (Prasetyo and Kistanti, 2020). In most countries in Sub-Saharan Africa, Nigeria in particular, despite the fact that human capital development is essential to growth, the financial commitment has been inadequate, and this has been persistent for too long. For instance, education and health funding; the two main components of human capital, have been abysmal and the outcomes of human capital investment remained unimpressive in Nigeria. Ironically, while both fiscal spending and the outcomes of both education and health are unsatisfactory, macro-economic growth indicators have been ranking Nigeria as one of the emerging markets in the world, in fact, the impressive increase in Nigeria’s per capita income in some years back has made Nigeria to be rated among the fastest growing economy in the world, yet the economic fundamentals that are expected to drive such impressive performance are not in tandem. Its human capital development indicators do not correlate with such high performance as it is discovered that economic growth and human development are moving at variance.

In spite of the above incongruence experienced on human capital development and economic growth in Nigeria, there have been several stylised facts and empirical evidences in other countries supporting strong positive link between public spending, human development and economic growth (Nonso, 2012; Qadri and Abdul Waheed, 2013; Han and Lee, 2019). This marked difference in theoretical prescription and empirical reality in countries like Nigeria has made several authors to subject the human capital development/growth nexus proposition to several empirical testing using data spanning different years and economic scenarios.

A perusal of existing studies on Nigeria clearly showed that there is a seeming consensus (without any empirical basis) to assume that the dichotomy between fiscal spending and outcome does not matter in measuring human capital development. Many of these studies merely used fiscal spending on education or health or at most both as proxy for human capital development. For instance, studies like Dauda (2011), Odior (2011), Loto (2004), Chete and Adeoye (2007), Ditimi, *et al.*, (2011), Craigwell, Lowe and Byone (2012), Alani and Ishola (2009) have been explicitly using government spending on health and/or education sectors as measures of human capital development and concluded that government spending directly impacts economic growth. The intuition behind such studies was that the performances of the health and education sectors are assumed to reflect the size of the expenditure elasticity of health and education concerns. In other words, to measure productivity, these studies evaluated health and education outcomes by the costs of producing such outcomes (i.e. expenditure incurred in provision of schools and medical facilities). This procedure identifies inputs rather than outputs. Apparently, health and education themselves cannot be likened to material goods that are purchased on the stalls, so outputs, that is, the outcomes, should be of more relevance when assessing human capital development. Indeed, the observed positive relationship between fiscal spending on education and health on economic growth may just be merely capturing the effect of fiscal policy on economic growth and not necessarily the effect of human capital development on economic growth (Salmi, 2000).

In the light of the limitation in previous literature, this study re-examined the relations between public spending, human capital outcomes and economic growth in Nigeria and thereby present a representative model that takes into

consideration the interactions among these variables in order to ensure appropriate allocation and use of government budget and funds. Specifically, this study seeks to address two important questions. (a) What is the effect of public spending and human capital development on economic growth? (b) What is the interactive effect of public spending and human capital outcomes on economic growth in Nigeria?

2. Literature Review

In considering the theories of government spending, Wagner's (1917) theory of increasing state activities postulates that there is a functional relationship between the growth of an economy and government activities such that the government sector grows faster than the economy. He argued that government spending increases proportionately more than income. In essence, the income elasticity of demand for government services is positive and greater than unity. Meanwhile, Wiseman and Peacock (1967) hypothesis stressed that public expenditure does not increase in a smooth and continuous way but changes intermittently because of various social disturbances that causes increased public expenditure which the existing public revenue cannot meet. Musgrave and Musgrave (1969) theory of public expenditure opined that there is a functional relationship between the growth of an economy and the growth of government activities which makes the government sector grow faster than the economy. Thus, different governments irrespective of their intentions and size demonstrate the same tendency of increasing public expenditure. This theory is in agreement with Wagner's law which states that as per-capita income of an economy grows; the relative size of public expenditure grows along with it. As the economy grows, there will be increase in the number of urban centres and their associated social vices such as crime and violence. The intervention by government to maintain law and order so as to reduce such activities to the barest minimum are some of the costs that cause increase in public expenditure in the economy.

Rostow and Musgrave (1969) propounded the theory that at the early stages of economic development, the rate of growth of public expenditure will be very high and increase continuously because government mostly provides capital-intensive infrastructural facilities such as education, health, roads, electricity, and water supply. These are necessities that would launch the economy from

the traditional stage to the take-off stage of economic development. Under this theory, public expenditure is a prerequisite of economic development. The Keynesian (1930) theory of public expenditure argued that government spending increases purchasing power in the economy. More so, it was asserted that government could reverse economic downturns by borrowing money from the private sector and then repay through various spending programmes that can provide short-term stimulus to help end recession in the economy.

Solow's (1956) growth theory is the usual starting point of theoretical framework of growth determinant. This is premised on the fact that aggregate production is a function of labour and physical capital at a given level of technology. However, the failure of Solow's model to explicitly include human capital component has made its relevance in analysing the effect of human capital on growth to be seriously challenged and constrained. Thus, the endogenous growth theory which is usually called the new growth theory is used as a basis for analysing the human capital and growth nexus. The emergence of this new growth theory and in particular the important contribution by Lucas (1988) and later by Mankiw, Romer and Weil (1992) provided the missing link between human capital development and economic growth which generated the interest in analysing the relationship between human capital and growth in recent times.

In empirical literature, the relationship between government expenditure and economic growth has continued to generate series of controversies among scholars in economic literature for the past four decades. Though numerous studies have been conducted, yet there has not been any consistent evidence for the interactive relationship between government spending and economic growth. Some studies provide positive relationship while some reported negative, others were of the opinion that there was no relationship. Also, there are studies that were country-specific using time series data across several years while some are cross-country utilising panel or cross sectional data. Yet there are still mixed findings on the relationship between government expenditure, human capital outcomes and economic growth. Oni (2014); Oke and Dang (2019) studied the growth impact of public spending in Nigeria. While Oni employed multiple-regression technique, Oke and Dang employed descriptive analysis. Oni's findings revealed that total health expenditure,

gross capital formation and labour force productivity were important determinants of economic growth while life expectancy was negatively impacted. Oke and Dang found that education is underfunded in Nigeria. They suggested that more fund should be allocated to education to enhance sustainable growth and development. Both studies established that increase in health expenditure over the years has raised the level of national income by enhancing the marginal productivity of labour (an average worker lives healthier and contributes more to gross domestic product GDP), however, he found that socio-political problems such as increased crime rates have been reducing life expectancy.

Chude and Chude (2012) investigated the effects of public education expenditure on economic growth in Nigeria for the period from 1977 to 2012, with particular focus on disaggregated and sectoral expenditures using Error Correction Model (ECM). The results indicated that education expenditure is statistically significant and have positive relationship on economic growth in Nigeria in the long run. The study concluded that economic growth is clearly impacted by factors which are both exogenous and endogenous to public expenditure in Nigeria and thus recommends a reduction in recurrent budgetary allocation and divert resources to the capital expenditures in the human capital sector. Seran, (2018) examined the effect of physical and non-physical investment (that is, quality of human resources) on economic growth. In his descriptive (literature) methodology, he discovered that non-physical and physical investment increases economic growth and reduces the poverty of the population. However, he established that the formation of non-physical investment in human (HR) takes a relatively long time to generate for development, but when it is achieved, the benefit is enormous and sustainable for a long time.

Health outcomes, particularly life expectancy also have a direct effect on the average skill level of the population by affecting the death rate and hence, affecting the level of skills per effective worker. In the situation where increase in life expectancy reduces death rate and hence raises output, then it will affect the country's growth path exactly like an increase in productive efficiency. Also, the learning capacity of children who are well nourished, vigorous and alert will be higher than for the children who are malnourished

and suffering the debilitating effects of disease. They can develop better ability to cope with stressful effects of rapid technological change and this can work through various labour-market and political-economy channels.

Also, reduced income inequality (because of improved health outcomes) is likely to have a positive impact on a country's growth path. In some countries, even though there might be a high rate of return to education many people may be unable to take advantage of this high rate because of financial constraints. A reduction in inequality even if it leaves average income unchanged will raise the fraction of people able to finance education and will lengthen the years of schooling of those that are able to afford same, thus, leading to increase in the school attendance indicator.

The time taken (gestation period) for human capital investments to translate into economic growth is comparable to that of physical infrastructure investments such as roads, highways, and hydroelectric dams. While physical infrastructure investments may take a long time to be completed, the impact period for human capital investments could be even longer if it is to yield notable results. While it may be possible to predict the gestation period of physical infrastructure investment by apportioning more resources through borrowing or foreign aid, the same cannot be done for human capital. Notwithstanding the size and pace of human capital investments, it will necessitate a fixed number of years (say five years for a primary school or eight years for secondary education) to nurture a generation of educated and skilled labour force. Physical infrastructure investment customarily requires one-off capital expenditures while the human capital investments are done on an interminable basis. For instance, once a solar panel is installed it continues to generate electricity and as long as there is sunlight it is expected to generate electricity for a long time without entailing future heavy capital expenses. On the other hand, to evolve a generation of educated workers will entail investments in human capital on a continual basis. Thus, the return of the social sector investment is a long term continuous proposition. This further substantiates the fact that there is an important link between healthy human capital and rapid economic development.

3. Research Methodology

3.1 Model Specification

The basic assumption of the model is that human capital outcomes and fiscal spending on education and health affects total productivity and help in addressing the issue of sustainable growth and development. This relationship is modelled by having the interaction between fiscal spending and outcome as additional determinants of economic growth. To justify the inclusion of this interaction variable, the conventional growth model (with both health and education explicitly introduced as independent variables) is written in the production function as:

$$Y = A(HCS.HCO)L^\alpha K^\beta \quad (1)$$

Where Y is output, A is TFP , HCS is human capital spending and HCO is human capital outcomes, L is labour force, K is physical capital and α and β are share of labour and capital, respectively. Taking the log differential of equation (1) gives:

$$\hat{Y} = A'(X_i.dX_j)/A + \alpha L^* + \beta K^* \quad (2)$$

Where $X_i.dX_j = HCS.dHCO + HCO.dHCS$ and $*$ represents growth rate and A' is the derivative of A with respect to the interaction term HCS and HCO ., the marginal product of Total factor Productivity (A) can also be derived as $A'Y/A = \lambda$ and by substitution into equation (2) becomes:

$$\hat{Y} = \lambda.X_i.dX_j/Y + \alpha L^* + \beta K^* \quad (3)$$

$$\text{Where } \lambda.X_i.dX_j = \lambda.HCS.\frac{dHCO}{Y} + \lambda.HCO.\frac{dHCS}{Y}$$

The term, $X_i.dX_j/Y$, in equation (3) captures the interaction between the education and health capital. Incorporating this interaction variable into the standard growth equation and transforming it from growth accounting equation to estimable functional growth, we have:

$$\Delta y = \alpha + \beta_1 \Delta l + \beta_2 \Delta k_d + \beta_3 \Delta k_{HCS} + \beta_4 \Delta k_{HCO} + \beta_5 \Delta k_{HCO} \cdot k_{HCS} + \beta_6 \Delta k_{HCO} \cdot k_{HCS} + \beta_7 \Delta OPNX + \beta_8 \Delta INF + \beta_9 \Delta EXRT + \beta_{10} FD_k + \varepsilon. \quad (4)$$

Where y = gross domestic output

l ; labour force, k_d ; gross capital formation, k_{HCS} ; Public spending on education and Health,

k_{HCO} ; Education and Health outcomes, FD_k ; financial market development, t $OPNX$; export plus import as ratio of GDP, $EXRT$; real exchange rate

Equation (4) is estimated for different successive models by capturing all the vectors of human capital indicators in the process. The key coefficients of interest are β_4 and β_5 if they are positive and significant then human capital development outcomes depend on public spending and public spending also depends on human capital development outcomes respectively. Equation (4) would be estimated using the Fully Modified Ordinary Least Square (FMOLS) technique after taking into consideration the unit root and cointegration tests. Data are sourced from the Central Bank of Nigeria (CBN) Statistical Bulletin, various issues and World Bank World Development Indicators (WDI), 2020.

4. Empirical Result

4.1 Descriptive Statistics

The descriptive characteristics of the variables for empirical analysis are presented in table 1. From the table, the averages (means) of the variables are 12.1, 4.3, 7.2 and 46.6 for economic growth, gross fixed capital formation, health expenditure (proxied by the health expenditure to gross domestic product and life expectancy at birth respectively while the averages of infant mortality rate, education expenditure (proxied by the ratio of education expenditure to gross domestic product and secondary school enrolment (were 118.9, 8.0 and 83.4 respectively. The averages for tertiary school enrolment, exchange rate, trade openness inflation rate and financial development are 4.8, 7.2, 54, 19.0 and 16.6 respectively. The standard deviation showed that infant mortality rate (23.24) was the most volatile variable in the time series while economic growth (gross domestic product) is the least volatile variable of the series (1.76).

The skewness statistic showed that economic growth, infant mortality rate, education expenditure and secondary school enrolment were negatively skewed while gross fixed capital formation, health expenditure, life expectancy at birth, tertiary school enrolment, exchange rate, trade openness, inflation rate and financial development were positively skewed. The kurtosis statistics showed that gross fixed capital formation, health expenditure, infant mortality rate, education expenditure, tertiary school enrolment, exchange rate and trade openness were platykurtic, suggesting that their distributions were flat relative to normal distribution. Conversely, economic growth, inflation rate and financial development were leptokurtic, suggesting that their distributions are peaked relative to normal distribution. Further, the kurtosis statistics revealed that life expectancy at birth was normally distributed.

The Jarque-Bera statistic rejected the null hypothesis of normal distribution for economic growth, life expectancy at birth; inflation rate and financial development at five percent critical value while the null hypothesis of normal distribution for the remaining variables were accepted at the same critical value.

Table 1: Descriptive Statistics

Variables	Mean	median	Max	Min	S.D	Skw	Kurt	JB	Prob	Obs
GDP	12.12	12.51	18.02	8.35	1.76	-0.04	4.95	7.17	0.03	45
GCFC	4.34	4.07	8.82	-0.13	2.72	0.28	1.84	3.1	0.21	45
HEXP	7.15	6.43	12.18	2.52	3.33	0.1	1.49	4.37	0.11	45
LEB	46.62	45.76	52.32	42.37	2.66	0.88	2.77	5.84	0.05	45
IMR	118.86	124.6	168.2	77.8	23.24	-0.05	2.59	0.33	0.85	45
EDEXP	7.96	8.01	12.87	1.37	3.36	-0.19	1.79	3.03	0.22	45
SSET	83.38	85.04	110.36	39.98	18.8	-0.94	3.03	6.65	0.04	45
TSE	4.83	3.98	10.26	0.72	3.45	0.55	1.88	4.65	0.1	45
EXT	7.21	6.69	10.09	4.42	2.3	0.06	1.32	5.3	0.07	45
OPNX	53.99	55.43	96.89	21.09	18.63	0	2.35	0.78	0.68	45
INF	19.02	12.88	72.84	3.46	16.27	1.79	5.3	34	0	45
FD	16.57	16.36	38	6.53	6.1	1.18	5.61	23.27	0	45

Source: Author, 2020

4.2 Time Series Properties and Co-integration Test

Examining the properties of time series before analysing the relationship between variables have become important owing to the challenges that non-stationary series present in regression analysis. It has been well established in the literature that Ordinary Least Square (OLS) regression estimate produces spurious results while using data with unit roots. From Table 2 below it was observed that all the variables were integrated of order one, suggesting that the variables were I(1) series. The result of the Augmented Dickey Fuller (ADF) unit root tests is presented

Table 2: Unit Root Test

Variables	Level	1 st Difference	Status
LGDP	-0.0020	-2.9832**	I(1)
LGCFC	-0.5235	-7.6548*	I(1)
HEXP	-0.3213	-10.2778*	I(1)
LEBT	-2.2214	-3.2283*	I(1)
IMR	-1.0855	-3.0691*	I(1)
EDEXP	-0.8167	-7.8977*	I(1)
SSET	-2.7371	-3.7034*	I(1)
TSE	-0.3666	-7.7346*	I(1)
LEXT	-0.2978	-5.5006*	I(1)
OPNX	-2.3789	-9.3397*	I(1)
INF	-1.2931	-3.2931**	I(1)
FD	-2.3500	-6.1315*	I(1)
Critical Values	Level	1 st Difference	
1%	-3.5885	-3.5966	
5%	-2.9297	-2.9332	
10%	-2.6030	-2.6049	

Source: Author, 2020.

Note: * and ** represent 1% and 5% significance level respectively. The Augmented Dickey Fuller (ADF) test is based on the automatic maximum lag length based on Schwarz info criterion.

Co-integration Test Results

Consequent to the unit root result, this study employed the Johansen co-integration technique to examine the nature of co-integration among the variables in the models to be estimated. The result of the co-integration estimate is presented in Table 3. For the health expenditure and economic growth model, the trace estimate rejected the null hypothesis of no co-integration for $r=0$ to $r \leq 6$ at five percent critical values while the null hypothesis of no co-integration for $r \leq 7$ at five percent critical value could not be rejected, indicating the presence of seven co-integrating equations among the variables. The Maximum Eigen test for the health expenditure and economic growth model rejected the null hypothesis of no co-integration for $r=0$ only at five percent critical values while the null hypothesis of no co-integration for $r \leq 1$ at five percent critical value could not be rejected. Thus, the Maximum Eigen estimate reveals the existence of one co-integration equation in the health expenditure and economic growth model.

For the education expenditure and economic growth model, both trace and Maximum Eigen estimates rejected the null hypothesis of no co-integration for $r=0$ at five percent critical values while the null hypothesis of no co-integration for $r \leq 1$ at five percent critical value could not be rejected. Thus, the co-integration result showed the existence of a co-integration equation in the education expenditure and economic growth model. The implication of the co-integration estimates for both models (health expenditure and economic growth; education expenditure and economic growth) above is that there is the possible existence of a long run relationship among the models.

Table 3: Summary of the Co-integration Estimate

Trace Test				Maximum Eigen Value Test			
Null	alternative	Stat. Value	95% critical values	Null	alternative	Stat. Value	95% critical values
MODEL FOR HEALTH EXPENDITURE AND ECONOMIC GROWTH							
r=0	r≥1	316.89	159.53	r=0	r=1	113.84	52.36
r≤1	r≥2	203.06	125.62	r≤1	r=2	68.45	46.23
r≤2	r≥3	134.61	95.75	r≤2	r=3	38.46	40.08
r≤3	r≥4	96.15	69.82	r≤3	r=4	32.97	33.88
r≤4	r≥5	63.17	47.86	r≤4	r=5	25.15	27.58
r≤5	r≥6	31.02	29.80	r≤5	r=6	15.48	21.13
r≤6	r≥7	15.54	15.49	r≤6	r=7	13.93	14.26
r≤7	r≥8	1.61	3.84	r≤7	r=8	1.63	3.84
MODEL FOR EDUCATION EXPENDITURE AND ECONOMIC GROWTH							
r=0	r≥1	161.58	159.53	r=0	r=1	55.42	52.36
r≤1	r≥2	116.16	125.62	r≤1	r=2	36.99	46.23
r≤2	r≥3	79.17	95.75	r≤2	r=3	22.81	40.08
r≤3	r≥4	56.36	69.82	r≤3	r=4	21.22	33.88
r≤4	r≥5	35.13	47.86	r≤4	r=5	16.31	27.58
r≤5	r≥6	18.82	29.80	r≤5	r=6	11.37	21.13
r≤6	r≥7	7.45	15.49	r≤6	r=7	7.06	14.26

Source: Authors' computation, 2020.

4.3 Analysis of the Interactive Mechanisms

From Model 1, the result shows that one-unit increase in education spending (*EDEXP*) and health spending (*HEXP*) has positive and significant effect to the tune of 0.321- and 6.943-units improvement in economic growth. Model 2 shows that the interactive term of education and health spending (*EDEXP*HEXP*) was significant in influencing economic growth while individual education and health spending also had significant effect on economic growth. Model 3 included the outcomes of the education/health sectors to evaluate their effects on economic growth. The result shows that tertiary school enrolment had a positive and significant effect on economic growth while infant mortality rate had negative and significant effect on economic growth. Secondary school enrolment and life expectancy at birth

were insignificant in influencing economic growth. With the inclusion of the interactive terms of education and health outcomes in model 4 (*SSET*IMR*, *SSET*LEB*, *TSE*IMR*, *TSE*LEBT*), it was observed that the interactive terms were insignificant in influencing economic growth. Model 5 included all the components of education and health sectors in the regression estimate and the result shows that, the interactive term of education and health spending (*EDEXP*HEXP*) as well as tertiary school enrolment (*TSE*), had significant effect on economic growth.

Table 4: Joint Effects of Public Spending and Outcomes on Economic Growth

Dependent Variable: LGDP					
Regressors	Model 1	Model 2	Model 3	Model 4	Model 5
EDEXP	0.321** (2.5000)	0.340** (2.5000)			-4.074 (0.730)
HEXP	6.943* (1.527)	6.307* (1.714)			-34.691* (3.625)
EDEXP*HEXP		11.873* (4.898)			56.990** (2.405)
SSET			-0.037 (0.25)	1.200 (0.202)	8.570* (2.855)
TSE			0.079 (2.468)**	-31.570 (1.111)	-31.843** (2.284)
IMR			-0.074** (2.38)	-0.225 (1.424)	-0.008 (0.094)*
LEB			-0.285 (1.515)	-1.924 (1.025)	0.674 (0.666)
SSET*IMR				-0.001 (0.071)	-0.016** (2.285)
SSET*LEB				-0.021 (0.223)	-0.142* (2.958)
TSE*IMR				0.064 (0.985)	0.065** (2.031)
TSE*LEB				0.520 (1.135)	0.525** (2.333)
R-Squared:	0.85	0.845	0.870	0.879	0.974
Adj.R-Squd:	0.82	0.816	0.837	0.827	0.959
F-Stat.	29.98	28.93	26.12	17.25	64.99
Prob. (F-Stat.)	0.000	0.000	0.000	0.000	0.000
D-W	2.1790	1.892	1.9354	2.0913	1.8723

Source: Author, 2020.

4.4 Analysis of Health and Education Spending as Complements

Based on the empirical analysis, and in terms of the complementary roles of education and health spending, the long run relationship among the variables in the model showed that there is complementary relation between education and health spending as both jointly influenced economic growth simultaneously. The study shows that the complementary role of education spending on health spending will be enhanced if education spending can be increased annually by 49% of the budget. Similarly, health spending should be increased annually by 19% of the budget in order to enhance education spending. This suggests that allocation to education spending must increase more than health's in order to improve human capital development and their joint contribution towards sustained economic growth in Nigeria.

Table 5: Computation for the Interactive Terms

Health Outcomes		Educational Outcomes	
	(IMR)		(TSE)
HEXP	-30.66	EDEXP	5.296
HEXP.EDEXP	62.683EDEXP	EDEXP*HEXP	28.275HEXP
THRESHOLD	49%	THRESHOLD	19%

Source: Author, 2020.

5. Conclusion and Policy Recommendation

This study examined the interactive effects of public spending and human capital outcomes (education and health outcomes) on economic growth in Nigeria for the period spanning 1970 to 2020. The Fully Modified Ordinary Least Squares (FMOLS) technique employed in the study revealed that education spending and health spending jointly had significant positive effect on economic growth. Second, the positive and significant interactive effects of public spending on education and health on human capital development and economic growth suggested that both health and education spending are complementary in their effects. Just as health spending affects educational performance, so also educational spending affects health status. However, in relative terms, health spending through the health outcomes channel had greater effects on growth than education spending. This may be due to the fact that education outcomes measured by graduate output are not quickly and automatically absorbed into the productive process unlike health outcomes

(change in health status) which can almost immediately reflect on the real output (GDP). This is not to imply that education spending is not significant but the transmission channels to convert education outcomes to improved productivity and economic growth are almost unavailable because of graduate-employment gap. Graduates are not easily absorbed into the work force where they can contribute to the growth of the GDP. Therefore, stakeholders should advocate for increased funding, monitoring and evaluation of crucial projects that will culminate into evident outcomes.

The complementary roles of health and education spending also help in efficient allocation of resources. The government can embark on various financing policies. Thus, for health spending to effectively complement education spending in the bid to enhance education outcomes and create substantial economic growth in Nigeria, health spending must not be less than 19% of the budget. Similarly, for education spending to effectively complement health spending to enhance health outcomes, education spending must not be less than 49% of the budget. This implies that health spending is cost effective since the government requires smaller resources to stimulate and complement education spending. Education sector requires a large budget allocation considering the fact that it is the bedrock of development in the whole sectors of the economy. Indeed, there is not a single sector of the economy where education is not a relevant tool for progress.

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CHAPTER

9

LEGAL SERVICE PROBONO: CHARTING A PATH FOR ACCESS TO JUSTICE IN NIGERIA

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Abstract

Adequate and equal access to justice remains an issue in Nigeria, Section 36 of the 1999 Constitution of the Federal Republic of Nigeria provides for the fundamental right to fair- hearing which the Supreme Court has succinctly held to include the ability to obtain professional assistance. Access to justice connotes an easy access to courts of law in conformity with international standards. There are, however, impediments to access to justice in Nigeria which includes but are not limited to the fact that majority of the population reside in the rural areas while most lawyers and non- governmental organisations who can offer free legal assistance are in the cities, complex and technical /legal procedures, financial and time constraints on the part of the citizens. This paper will attempt to discuss the concept of legal services pro bono which unlike traditional volunteerism which requires the specific skills of professional to those who cannot afford to pay for the services. In this regard, the paper will do a discourse of the provisions of the Legal Aid Act 2011, an act enacted to provide for the establishment of legal aid and access to justice fund for the indigent citizens to prosecute their claims. More particularly outside the state funded Legal Aid, the paper will take a look at the template in the Lagos Public Interest Law Partnership Roundtable. Nov 8, 2012, a public and private collaborative, supportive, legal services pro bono project aimed at enhancing access to justice and addressing other legal needs of indigent, disadvantaged and marginalised residents of Lagos State. The paper concludes that charting a path for legal services pro bono will help in enhancing access to justice which is a hall mark of human society to persons of limited means to advance their grievances.

Keywords: Nigeria, Access to Justice, Legal services, Pro Bono.

1. Introduction

A society consists of human beings who must interact with each other; these interactions will necessarily lead to creation of relationships between such persons. These relationships include but are not limited to contractual/commercial agreements, transactions relating to land, landlord/tenant relationships, carriage of persons and goods, persons here include both natural and artificial persons.

By and large, these relationships lead to rights and obligations as such there could a breach of a contract, land disputes, infringement of fundamental rights and sometimes crimes are committed. It follows therefore that the issue of justice and the access to justice will arise when people want and can actually advance their claims to freedom, opportunities, resources and so forth, that are potentially conflicting and people appeal to justice to resolve such conflicts by determining what each person is entitled to have (1).

The persons who are involved in these disputes want to have these disputes heard and resolved by a court or tribunal of competent jurisdiction manned by knowledgeable personnel (2). The main thrust of this paper therefore is to examine how persons can approach or in other words have access to the courts/tribunals to assert their claims or vent their grievances so to say.

Under the 1999 Constitution of the Federal Republic of Nigeria (3). Section 6 (1), the judicial power of the Federation shall be vested in the court to which this section relates, being courts established for the federation. Section. 6 (2) provides that the judicial power of a state shall be vested in the courts to which this section relates, being courts established, subject as provided by this Constitution, for a state. Most importantly Section 6 (6) provides that the judicial powers vested in accordance with the foregoing provisions of this Section (a) shall extend, notwithstanding anything to the contrary in this constitution, to all inherent powers, and sanctions of a court of law shall extend to all matters between persons or between government or authority and to any persons in Nigeria and to all actions and proceedings relating thereto, for the determination of any question as to the civil rights and obligations of the person (emphasis ours).

Judicial power is the power of a court to decide and pronounce a judgment and carry it into effect between person and parties who bring a case before it for decision (4). It is the right to determine actual controversies arising between diverse litigants, duly instituted in court of proper jurisdiction (5).

Jurisdiction is the power of the court to decide a matter in controversy and presupposes the existence of a duly constituted court with control over the subject matter and the parties. It is the bedrock or launching pad of any court in its adjudicatory process (6). The issue of jurisdiction is very fundamental as it goes to the competence of the court or tribunal. Any action taken by a court without the requisite jurisdiction is a waste of time and a nullity (7).

In the case of *Madukolu v Nkemdilim* (8), the court held that:-

“A court will inter alia have the necessary competence to hear and determine a matter if same is within its jurisdiction and there is no feature in the case, which prevents the court from exercising its jurisdiction”.

Nigeria is the most populous country in Africa where a large number of her citizens live in poverty and cannot afford the funds through which they can have access to justice and thereby vent their grievances. This paper shall discuss the notion of justice, fair hearing, access to justice and the impediments. It will also focus on the legal frame work under the Legal Aid Council Act and the Lagos State Model which advocates legal service pro bono by private legal practitioners through the Lagos Public Interest Law Partnership (LPILP) which places emphasis on legal service Pro bono.

2.0 The Notion of Justice

The scope of this paper shall be restricted to the different meanings ascribed to the notion of justice and not the different type of justice. The notion of justice has been seen by different philosophers and school of thoughts in different ways so much so that a writer concluded that they end up stating what justice does and not a precise definition of the term(9).

It has been pointed out that classically; justice was counted as one of the four cardinal virtues (and sometime as the most important of the four): in modern times it has been described as the first virtue of social institutions (10).

The notion of justice in the view of the Institutes of Justinian, which is a codification of Roman law from the Sixth Century A.D is defined as the “constant and perpetual will to render to each his due” (11).

The Justinian school of thought has been broken down into three dimensions (12)

1. Justice has to do with how individual people are treated (“to each his due”)
2. That justice is a matter of claims that can be rightfully made against the agent dispensing justice, whether a person or an institution.
3. Justice is the opposite of arbitrariness; it requires that where two cases are relevantly alike they should be treated in the same way.

The Positive school of thought sees justice as conceived, recognised and a completely expressed by the civil law or some other forms of human laws, the natural law school on the other hand perceives the notion of justice in a moral sense rather than in a legal sense (12).

Honorable Justice Mustapha Akanbi (13) described “justice” as a general philosophical concept, relying on the Greek/ Roman philosophers of old as giving to everyone his due, living honorably and not harming a neighbor. The erudite jurist went further to say that in the strict legal sense “Justice” is the end product of the effective application of the law of the land made by the competent law making authority (14).

Justice Oputa is of the opinion that “justice is the virtue which accepts everyone and renders to everyone his or her due” (15).

Honourable Dr. T. Akinola Aguda (16) opined that the concept of justice in the abstract is nebulous, but when applied to individual case it takes the garb, so to say of flesh and blood and can be felt and seen” Aguda (17) in another seminal paper “The Quintessence of Justice “went further to say:

“It will be well if all concerned understand clearly that the reason for the existence of law must be justice, law is under justice, not above it whenever there appears to be a conflict between what the law dictates and what justice demands, a judge should attempt to resolve the apparent conflict in favor of justice. The ordinary citizen of Nigeria does not expect anything less than that from our judges and lawyers”.

The Court of Appeal in *Obajin v. Adedeji* (18) per Augie JCA defined the notion thus:

“Justice means fair treatment and that justice in any case demands that the compelling right of the parties must be taken into consideration, balanced in such a way that justice is not only done but must be seen to be done.”

In all of these, it is important to stress that in any democratic society, it is an important ingredient to ensure that justice is done, the courts are set up to do substantial justice and in the pursuit of the substantial justice, all shades of technical issues that will be a clog in the wheel that may prevent the determination or the resolution of the issues between the parties should be shunned, this ensure fairness in deciding the competing right and interest of the parties.

3.0 Right to Fair Hearing and Access to Justice

3.1 Right to Fair Hearing is one of the inherent rights in our nature and without respect to which we cannot live as human beings: (19) it is not only basic, it is fundamental to our existence. This right is entrenched not only in international (20) and regional (21) human right instrument; it is also entrenched in S. 36 of the 1999 Constitution of the Federal Republic of Nigeria. (22)

S. 36 (1) of the Constitution provide thus:

“In the determination of his civil rights and obligations including any question or determination by or against any government or authority, a person shall be entitled to a fair hearing within a reasonable time by a

court or other tribunal established by law and constituted in such manner as to be sure its independence and impartiality”.

The intendment of S. 36 (1) 1999 Constitution was succinctly put by Uwais J.S.C in the case of *Abiola v. FRN (23)* thus:

“It is clear from the foregoing that the “Independence” and “Impartiality” of a court are part of the attributes of fair hearing. The requirement of impartiality is intended to prohibit a person from deciding a matter in which he has either pecuniary or any type of interest. Such other interest may arise from his personal relationship with one of the parties to the case or may be inferred from his conduct or utterances during the hearing of the matter. Hence the remark per Lord Heward, CJ in *king Sussex Justice’s expert McCarthy (1924)*I kb 256 at 259 that it is not merely of some importance but is of fundamental importance that justice should not be done, but should manifestly and undoubtedly be seen to have been done”.

It is not in doubt that the issue of impartiality of a court in ensuring fair hearing cannot be over emphasised and this was alluded to in *Igbeke v. Emordi* per Arowoola, JCA (24) to the following effect that, “the delicate role of a judge in our adversarial system of justice demands that he must not only be impartial but must also be seen to be impartial at all times, a judge cannot and in fact should not play the role of prosecution and of a judge at the same time. The duty of impartiality of a judge includes the duty to hold even balance between the parties”

The Court of appeal in *Adeniji v. Uhanagwu (25)* stated the principles of fair hearing as follows:

- a. That the court or tribunal shall hear both sides not only in the case but also in all material issues in the case before reaching a decision which may be prejudicial to any party in the case
- b. That the court or tribunal shall give equal treatment, opportunity and consideration to all concerned;
- c. That the proceeding shall be held in public and all concerned shall have access to and be informed of such a place of public hearing;

- d, That having regard to all the circumstances in every material decision in the case, justice must not only be done but must manifestly be seen to have been done.

Section 36 (5) provides that, “Every person who is charged with a criminal offence shall be presumed innocent until proved guilty”.

Other constitutional provisions as regards criminal proceeding include.

S. 36 (6) every person who is charged with a criminal offence shall be entitled to

- a. Be informed promptly in the language that he understands and in detail the nature of the offence.
- b. Be given adequate time and facilities for the preparation of his/her defense.
- c. Defend himself in person or by legal practitioner of his own choice,
- d. Examine in person or by his legal practitioner the witnesses called by the prosecution before any court or tribunal and obtain attendance and carry out the examination of witnesses to testify on his behalf before the court or tribunal on the same condition as those applying to the witnesses called by the prosecution.
- e. Have without payment, the assistance of an interpreter, if he cannot understand the language used at the trial of the **offence**.

Section 36 (12) provides that subject to otherwise provided by this Constitution a person shall not be convicted of a criminal offence unless that offence is defined and the penalty therefore is prescribed in a written law of a state, any subsidiary legislation or instrument under the provisions of the law.

The right to fair hearing is vital to the effective administration of justice and cannot also be separated from access to justice, a concept to which we shall turn now.

3.2 Access to Justice, Features and Impediments there to

The United Nations Development Program has described access to justice as the ability of people from disadvantaged groups to prevent and overcome human poverty by seeking and obtaining a remedy, through the justice system,

for grievances in accordance with human right principles and standards (26). The UNDP further views access to justice as a basic human right as well as an indispensable means to combat poverty, prevent and resolve conflicts (27).

An American scholar (28) lent his voice to the differing opinions on the term of access to justice and opined that:

“One central problem in discussion about access to justices is the lack of clarity or consensus about what exactly the problem is. To what should Americans have access? Is it justice in a procedural sense, access to legal assistance and legal processes that can address law related concerns? Or is it justice in a substantive sense access to a just resolution of legal disputes and social problems? Participants in this debate have different conceptions of justice and the strategies best able to secure it - Clients, Judges, Court Administration, Bar Association, Legal Aid programmes and Public Interest Organisations all have concerns that may argue for different research and Policy Priorities”

In *Federal Government Civil Service Commission v. Laoye* (29), the Supreme Court observed that:

“One aspect of our vaunted equality before the law is that law litigants, be they private persons or government functionaries approach the seat of justice openly and without any inhibitions or handicap in the unequal combat between those who possess power and those on which such power bears, the court’s primary duty is protection from abuse of power.”

This observation is apt, as it draws a distinction between those who possess power and are likely to abuse it and those on which such power bears, it is important that there is an access to the seat of justice openly without any hindrance to vent their grievances this in simple terms amount to access to justice.

The term “access to court” was considered by the Court of Appeal in *Apugo v. Mwoke* (30) relying on the decision of the Supreme Court in *Global Excellence Commercial Ltd. v. Duke* (31), the court held thus:

“Access to court is a Constitutional right which can only be taken away by a clear provision in the Constitution. It cannot be taken away by implication or speculation by the courts.”

A writer (32) is of the opinion that “access to justice” implies that people are in need of help in finding effective solution available from justice system which are accessible, affordable, and comprehensive to ordinary people and which dispense justice fairly, speedily and without discrimination, fear or favour and provides a greater role for alternative dispute resolution.

It has been posited that the term access to justice has four characteristics: (33)

- a. A proper adjudicatory mechanism, it could be a court, tribunal, commission where an aggrieved person can approach to seek redress, the mechanism must not only be strong, it must be just, fair and objective in line with the principle of natural justice.
- b. Such a mechanism mentioned above should be assessable to all citizens, accessibility here include distance, time and other factors.
- c. The process of getting justice must be affordable.
- d. Speeding process, a lengthy trial could become laborious and frustrating for those who seek justice and could be tantamount to denial of not only access to justice but justice itself.

In *Kotoye v. CBN* (34) Nneamaka – Agu JSC (as he then was) held that:

“Clearly whenever the need arises for the determination of the civil right and obligation of every Nigerian, this provision (that is Section 36 (1) emphasis added) guarantees to such a person a fair hearing within a reasonable time.”

However, some factors have been identified as impediments to access to justice in Nigeria, these factors are legal and social factors, this paper shall only mention a few of these factors. (35)

Legal factors

- a. Litigation, a lot of Nigerians are familiar with litigation as the only means of venting their grievances, litigation is not only lengthy, and it can also be expensive and laborious. There are other dispute resolution mechanisms like mediation, conciliation, multi-door courthouse, etc available around the country
- b. Related to the above is the issue of technicalities, the issue of the use of technicalities in case affects access to justice, it will serve a good purpose if substantial justice is done rather than procedural justice in court. In *Akpaji v. Udemina* (36), the court held that all courts must strive to do substantial justice in all cases before them; they must jettison technicalities and not allow same to stand in their way to dispensing justice. Specifically, sections. 16 and 22 of the Supreme Court and Court of Appeal Acts (37) empower the two appellate courts respectively to strive to do substantial justice in all matters before them.
- c. Multiplicity of Institutions A number of institution are involved in the administration or empowered to adjudicate on issues before them, but there are some many other institutions involved, the police, the Economic and Financial Crimes Commission (EFCC), the Independent Corrupt Practices Commission (ICPC) set up under different laws, this does not only lead to delays it also causes confusion.

4.0 Legal Aid and Pro Bono Legal Service in Nigeria

The main mechanism for provision of access to justice to indigent citizens in Nigeria is the Legal Aid Council of Nigeria and in the explanatory memorandum to the Act: the Legal Aid Act was enacted in line with international standards to provide for the establishment of legal aid and access to justice (emphasis added) fund into which financial assistance would be made available to the council on behalf of indigent citizens to prosecute their claims in accordance with the Constitution.

The United Nation principles and guidelines defines legal aid as legal advice, assistance and representation for person detained, arrested or imprisoned, suspected or accused of or charged with a criminal offence and for victims and witnesses in the criminal justice process that is provided at no cost to those without sufficient means or when the interest of justice so require” (38).

Pro bono is derived from the Latin maxim “pro bono public” which translates to “for the public good.” The term denotes professional work undertaken voluntarily and to whom are not able to afford them, the indigent disadvantaged and marginalised persons. (39)

An American write (40) opined a common generic and politically neutral description of public interest law as “lawyering for interest that lack adequate representation in the legal process.” However, this description has been criticised as being proceduralistic which assumes that the system is fair and just and rather than view public interest law only as a means of providing legal representation, it should also address the root cause of poverty and injustice. (41)

It is of importance to note here that whilst legal aid funded services are funded by government, legal service pro bono are services provided by lawyers in their professional capacities without the anticipation or receipt of payment for such services. (42)

4.1 Legal Aid Council Act

The Legal Aid Council of Nigeria was set up in 1976 and in 2011, the Legal Aid Act was promulgated repealing the legal Aid Act 2011:- in Section 1 (1), it provides for the establishment of the legal Aid Council (referred to as “the Council”), the Council shall be body corporate with perpetual succession and a common seal and may sue and be sued in its corporate name. (43) Section 3 of the Act provides that:

“The council shall have the responsibility for the provision in accordance with the Act, of legal aid, advice, access to justice in respect of person entitled thereto.”

Section 8 (1) provides that the grant of legal aid, advice and access to justice shall be provided by the council in 3 broad areas namely, criminal defense services, advice and legal representation in court and community legal services subject to merits and indigence tests for the parties, from the provision of section 8 (1) the Council renders this service subject to tests, in our mind, the council is given a discretion as to which matter to take on.

Section 8 provide as follows

1. The Council, shall establish, maintain and develop a service known as the Criminal Defense Service for the purpose of assisting indigent persons involved in criminal investigation or proceedings specified in the Second Schedule to this Act. Access to such advice, assistance and representation as the interest of justice requires.
2. The Council, shall establish, maintain a service to be known as the Civil Litigation Service for the purpose of assisting indigent persons to access, assistance and representation in court where the interest of justice demands, to secure, defend, enforce, protect or otherwise exercise right, obligation, duty, privilege, interest or service to what that person is ordinarily entitled under the Nigerian legal system.
3. Legal Aid shall also granted in respect of any breach or denial of any such right, obligation, duty, privilege or service and the Council shall be responsible for the representation before any court or tribunal for such civil matters.
4. Legal Aid shall consist, on terms provided by the Act of
 - a) The assistance of a legal practitioner including all such assistance as is usually given to by private legal practitioner in the steps preliminary or incidental to any proceeding;
 - b) Representation by a legal practitioner including all such assistance as is usually given to by a private legal practitioner before any court; and
 - c) Such additional aid (including advice) as may be prescribed.
5. Where regulations made provide for legal aid, provision shall be made therein to the effect that persons shall not be given legal aid in connection with any such proceeding unless he shows to the satisfaction of the Director-General or other person authorised by the Council that he has reasonable grounds for taking, defending or being a party. Thereto, and may also be refused legal aid if it appears unreasonable that he should receive it in the particular circumstance of the case.
6. The Council shall establish, maintain and develop a service known as Community Legal Service for the purpose of promoting individual services and in particular for ensuring the individuals have access to service that efficiently meets their needs.
Community Legal Services for the purpose of this section means –

- a) The provision of general information about the law and legal system and the availability of legal services;
- b) The provision of assistance; in preventing or settling or otherwise resolving disputes about legal rights and duties;
- c) The provision of assistance in ensuring decisions by which such disputes are resolved;
- d) The provision of assistance in financial support and rendering; and
- e) The provision of assistance with regards to claims against public authorities, private organizations and individuals.

Provided that the Director-General shall receive the right to set the limit of such assistance.

7. Every person authorised by the Council to exercise the functions relating to Community Legal Service shall do so in such a manner as to:
- a) Promote improvement in the quality of services provided for the benefit of those who need them;
 - b) Ensure that the services provided in relation to any matter are appropriate having regard to its nature and importance; and
 - c) Achieve a swift and fair resolution of disputes in order to avoid the necessity of a protracted court proceeding.

The Act did not define the term indigent and to make it more complicated section 8(1) makes available the service of legal aid advice and access to justice subject to merits and indigent tests, however, section 10(1) gives a clue and it provided that, “legal aid shall be granted to a person whose income does not exceed the national minimum wages.”

Section 10(2) makes exceptions, legal aid service can be granted to a person whose earning exceeds the national minimum wages and the governing consistency approve under section 10(3) give legal aid on a contribution basis to a person whose income exceeds ten times of the national minimum wages.

4.2 The Lagos Template on Pro Bono Legal Service/Public Interest Law, Salient Provisions of the Lagos Public Interest Law Partnership Manual

Nothing more can be added to the speech of His Excellency, former Governor of Lagos State Raji Fashola in his key note address at the (LPILP) Stakeholders consultation meeting where he said that:-

“Legal practitioners can create a structured platform and bridge the gaps by partnering with the Lagos State Government to improve services to citizens, since the private sector known for its efficiency, professionalism, customer service orientation and competitiveness and the public sector is known for its unique and professional staff and significant expertise built over decades of experience in service to the public... If they join forces and merge the private sector expertise, they will rapidly accomplish the goal of a “more lawful, a more orderly and a more civilised society”.

The Lagos Public Interest Law Partnership Manual (which is a roadmap to guide pro bono legal service delivery in Lagos State also provides that those who are qualified for the service shall be residents of Lagos state who are not already enjoying any form of free legal service from any of the established free legal service providing bodies or agencies whether private or public in relation to the subject matter of his/her application (44).

The vision statement is access to justice (emphasis added) for all indigent, disadvantaged, marginalized resident of Lagos State and in the mission statement the LPILP is a public and collaborative, supportive legal service pro bono project aimed at enhancing access to justice and addressing other legal needs of the indigent, disadvantaged and marginalized residents of Lagos State (45).

The philosophy behind the LPILP is the provision of pro bono service, everyone regardless of status, should have equal access to justice, a legal system that ensures justice for everyone which will benefit and is in everyone’s interest (46).

As such, it recognises justice as the all mark of human society. Every citizen is entitled to have his grievances and cases heard and determined in accordance with due process, more so where the aggrieved is a person of limited means he or she should be provided free and qualitative legal assistances (47).

Section 2.1 of the LPILP manual provides the type of pro bono legal work that are covered:-

- i. Representation of person of limited means in civil and criminal matters.
- ii. Representation or counseling to charitable, religious, civic, community, governmental and educational designed primarily to address the needs of person of limited means.
- iii. Civil right and public right law representation or advocacy on behalf of individuals or organisations seeking to vindicate right with broad societal implication where it may be inappropriate to charge legal fees; and,
- iv. Community economic development representation or counseling to businesses owned by person of limited means for the purpose of community economic development.

The most important salient provision of the Manual is contained in section 2.5 which prescribes how to access the service which states that eligible members of the public shall have access to the scheme by the presentation of an application to pro bono clearing house in the Jurisdiction where the applicant resides and it shall be by way of affidavit which shall state the bio-data of the applicant, short summary of facts of the matter in respect of fact that the applicant is indigent and unable to afford the service of a lawyer.

Section 2.5 alluded to an application by an application by an eligible member of the public to access the scheme to apply to a pro bono clearing house. It follows therefore that there is a provision for the establishment of a clearing house charged to manage and administer the pro bono programme of the LPLP under section 2.3 of the Manual.

Section 2.3(1) laid the foundation for the establishment of a clearing house by stating that it is essential to have an institution to liase between the parties involved that is the pro bono service providers and the pro bono clients. There shall be a clearing house with units at each judicial division and any other place

as may be determined from time to time, which shall be independent and unbiased when dealing with matters going through its doors, it must not permit the government or its agencies to influence it in any manner (48).

The functions of the clearing house are set out in Section 2.4 which includes eligibility for pro bono assistance and process the application prospective pro bono clients, ensure that all applications approved fall within the scope of pro bono service provided under the scheme, run an efficient and effective pro bono programme, connect those in need of free legal service with pro bono lawyers and volunteers who are capable of providing the requisite legal assistance and maintain a comprehensive list of pro bono legal service providers and volunteers among others.

Pro bono legal services providers shall be legal practitioners in the public and private sectors students of law in the universities and Nigeria Law School on law office attachment and non-legal volunteers as appropriate. The goals of the LPILP are stated in Section 1.2.V (a) (b) and (c) as follows.

- (a) To build a platform comprising the public sector, the private sector and the people to ensure that law and order is upheld and access to justice (emphasis added) is guaranteed to every resident of Lagos State in every part of Lagos State irrespective of means (emphasis added), Sex, ethnic group place of origin religion or political opinion:-
- (b) In partnership with the Nigerian Bar Association (NBA) and the stakeholders to establish a pro bono culture (emphasis added) encourage every legal petitioner practicing in Lagos State to personally undertake at least fifty (50) hours of pro bono work or such other amount of pro bono work per year as may be determined from time to time by the NBA; and,
- (c) To stream-line, co-ordinate, manage and monitor pro bono programmes with a view to addressing overlapping functions and avoiding waste of resources.

5.0 Conclusion

The United Nations Development Programmes (UNDP) sees access to justice as a means to combat poverty, prevent and resolve conflicts (49), in essence, it has been linked to development especially in respect of those who are indigent and disadvantaged. It affords them an avenue to vent grievances The Lagos

Public Interest Law Partnership has been justified on the ground that the inability of the poor and the vulnerable to have access to justice will not only cause great suffering for those affected it will ultimately result in social and economic turmoil with dire consequence to the society.

This paper have attempted to discuss the notion of justice as viewed by different schools of thoughts, jurists, scholars and through the cases. It further looked at the concept of fair hearing that is hinged on the independence and impartiality of the courts assigned to adjudicate and resolve the conflict between parties. It is important therefore that a strong and impartial judiciary is a cornerstone to access to justice.

The paper also looked at some provisions of the state mechanism for legal aid, which is the Legal Aid Council that offer legal aid services to indigent persons who earn below the minimum national wage. But the query here is how accessible is the service of the Council to persons especially those living in the rural areas? It is recommended that Legal Aid Council offices should be established in all local government headquarters.

The Lagos Public Interest Partnership template is unique in the sense that it encourages private legal practitioners to render free legal services to indigent and under-privileged people who cannot afford legal representation to have access to justice. This of course is outside the Legal Aid Council Act. This will in no small measure contribute to a rise in public interest lawyering in Lagos State.

The Lagos State Government in the Manual has expressed a willingness to enact the Lagos State Assistance to Indigent Persons Law which will not only complement the legal teeth to the pro bono scheme and services in the state and also intends to established a pro bono fund in collaboration with other stakeholders and appropriate funds for pro bono activities in the state's annual budget.

In other climes like in the United States of America where they have incentivised volunteerism, for instances awards and recognition are given for pro bono service. Law Schools have formalised pro bono graduation

requirements, particularly in New York, students are required to perform fifty hours of pro bono service before being admitted into the state's bar and legal publication weigh pro bono service in ranking law firms (50) among other incentives for pro bono lawyering.

The Lagos state template also have similar incentives to encourage pro bono legal service such as, organising award ceremonies to honour firms, private organisation and people who have contributed to advancing access to justice, making appointment to legal political offices e.g. the Office of the Honourable Attorney General of the State subject to the fulfillment of the requisite pro bono hours, organising a Pro Bono Week akin to the Annual Settlement Week in Lagos and developing other reward schemes to encourage broad participation in pro bono activities, including supporting the candidacy of lawyers who have contributed significantly to pro bono causes regarding the conferment of the rank of Senior Advocate of Nigeria.

Finally in our own opinion encouraging pro bono lawyering in Lagos State with some incentives will prompt legal practitioners to engage in rendering legal assistance to indigent citizens in Lagos State which will translate to access of justice, in other words, the Lagos state initiative will chart a course for access to Justice in Lagos State with a strong believe that it shall also be extended to the rural areas. The Supreme Court in *Adigun v. Attorney General of Oyo State* (51) held that the right to fair hearing includes the ability to obtain professional assistance.

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CHAPTER

10

ECONOMIC GROWTH IMPACTS OF LIFE EXPECTANCY AND POVERTY INCIDENCE IN NIGERIA (1980-2017)

Dominic Ikoh Umar

Abstract

Emerging interests and literature on health improvement that stipulates the importance of health expenditure in fostering economic growth that will engender development in developing countries including Nigeria cannot be underscored. This is premised on the belief that health spurs economic growth by analysing the impact of life expectancy on economic growth using Nigerian data for the period of 1980-2017. Time series econometrics tests like Unit Root, cointegration, Generalised Method of Movement (GMM) estimator were deployed to test the hypothesis of life expectancy-led growth strategy and the role of poverty reduction in the strategy. The results that emanated from this study revealed that there is cointegration between dependent and explanatory variables. The results of the study were also intriguing as life expectancy was found to contribute to economic growth positively and statistically significant at 5% level. Besides, the interactive nature of life expectancy and poverty reduction was found to be more positive than their individual effect. The study therefore, recommends improved funding for health at all levels given the interconnections between life expectancy, poverty and economic growth, the implication of their connections for economic growth, poverty reduction and sustainable development in Nigeria.

Key words: Life Expectancy, Poverty Economic Growth, Nigeria.

Jel Classification: I115, I32, O47, O55

1.0 Introduction

Emerging interests and literatures on health improvement that stipulates the importance of health expenditure in fostering economic growth that will

engender development in developing countries including Nigeria cannot be underscored. This is conceivable on the consensus that health expenditure could have enormous direct and indirect potential that could be leveraged on for sustainable development. The perceived implications or payoffs of health expenditure for Sustainable Development Goal No 1 (no poverty by 2030) and the well-being of the people accorded health a pivotal place in growth and development disclosure. This has made health a global policy thrust thus, its explicit inclusion in the Sustainable Development Goals No. 3 as ‘To ensure healthy lifestyle through health investment and promote the well-being of people across all ages’. (United Nations, 2017).

Human capital and development pundits opined that if well maximised, health expenditure could translate into improved life expectancy, lower under-5 mortality rate, reduce morbidity, avert killer diseases like malaria, HIV/AIDS, tuberculosis among others with a consequential economic loss. More so, good health enhances job productivity and provides the climate for an individual to learn and develop both mentally, physically and emotionally. Through these mechanisms, individuals could harvest the gain of living healthier and longer, reduce the urge to have more children and are motivated more to invest in their health and that of their family members thus, enhancing their health status. Evidence suggests that this improvement in health could translate into poverty reduction and boost the economic growth of nations (Barro and Sala-i-Martin, 2004). Consequently, the health of a population decides, to a greater magnitude, the earning capacity of the people by influencing their capability to contribute to economic activities. This could impact on the level of earnings and therefore the extent and state of poverty.

Despite these perceived gains of health investment, empirical findings on the effect of health expenditure and health indicators on economic growth suggest mixed outcomes. Commenting on the growth-led health expenditure and life expectancy, Barro and Sala-i-Martin (2004) and Lorentzen *et al.*, (2008) argued that if properly utilised, economic growth could respond positively to increase in health expenditure through an increase in longevity. Increase in life expectancy could imply an improvement in health status which has a positive implication for employment prospects, increased productivity and improved per capita income (Mahumud *et al.*, 2013). Furthermore, evidence indicates that

improvement in health status leads to increase in per capita income through but not limited foreign direct investment, spending and saving decision over the individual life cycle and improved motivation to invest in education. Specifically, further argument suggests that health expenditure implies increased life expectancy which could impact on education outcomes positively (Umar, 2017).

Economic growth-life expectancy analysis by Acemoglu and Johnson (2007) however, shows no positive impact instead warned of a grave economic consequence because an increase in life expectancy tends to increase population growth rate and reinforced old-age dependency ratio with a severe economic burden. With growing production inputs to a fixed factor (say land), output per head tends to decline, thus leading to a reduction in per capita income. Also, earlier revelation from Kelley and Schmidt (1995), An and Jeon (2006) gave a pointer that shows a non-linear relationship exists between the increase in life expectancy and economic growth. Besides, evidence shows that the level of economic growth depends on the level of investment in human capital development and the effect of such investment on poverty reduction (UNDP, 2017). With an improvement in health expenditure and its outcomes, sub-Saharan African countries can improve their economic performance as they migrate out of poverty (Ogunleye, 2014, United Nations, 2017). It is therefore apparent from existing studies that empirical investigations of the nexus between life expectancy and economic growth show varying outcomes, ranging from positive to negative, to neutral and to contingent one.

Moreover, Kunze (2014) discovered that it is not easy to declare in theory which outcome dominates. Again Gonzalez-Eiras and Niepelt (2012) and Cervellati, (2009) brought to the fore that what is essential is not whether economic growth-life expectancy nexus is positive or negative. What is imperative given the indirect effect of health expenditure and life expectancy on economic growth, is to determine which channels the positive or negative impacts flow through and what is the magnitude of this channel? Several existing studies have investigated more of the relationships between life expectancy and economic growth without proper attention to transmission mechanisms or pathways through which life expectancy flows to growth (Gonzalez-Eiras and Niepelt, 2012). The inconclusiveness of empirical findings of growth effects of

life expectancy remains a subject of debate and an open discussion among growth scholars and policymakers in developing countries including Nigeria.

Based on the new endogenous growth framework of Lucas (1998), life expectancy (human capital development) effect on poverty reduction could lead to steady growth rate through an increased impact on per capita income and economic well-being of the people. Dauda, (2016) argued that the potential impact of life expectancy on economic growth might depend among other factors on the extent to which health expenditure and its outcome (life expectancy) contributes to poverty alleviation in Nigeria.

This study, therefore, intends to determine the actual impact of life expectancy on economic growth and poverty incidence in Nigeria and to test whether or not their relationship is significant. Apart from shedding light on life expectancy-growth debates, this study further brought different perspectives in contributing to the literature by investigating the role poverty reduction could play in the life expectancy-growth nexus. While the results would unravel the life expectancy-poverty-growth channels, it would settle the unsettled agitation and controversy as to whether the government should harness the benefit of life expectancy (an essential outcome of health investment) to foster development by increasing health expenditure.

In other to execute the aim of this study, Generalised Method of Movement (GMM) estimator is employed in the time series data analysis covering 1980-2016. This is due to the fact GMM addresses the potential problem of endogeneity or bi-directional causality between economic growth and life expectancy. Data for the study was obtained from World Bank Development Indicators, CBN Statistical Bulletin and Nation Bureau of Statistics. Sequel to this introduction, the remaining part of the paper is organised as follows. Section 2 will deal with stylised facts. Section 3 will deal with the literature review. Section 4 presents the methodology. Section 5 will deal with empirical results presentation and discussion. Finally, Section 6 will offer the conclusions.

1.1 Statement of the Problem

There appears to be a consensus that health expenditure is fundamental to economic growth and equally impact of the level of poverty in a society. For example, improvement in health could lead to prospect for employment opportunities, increase output, enhance earning capacity, influence the well-being of the people and boost economic activities and with multiplier impact on higher economic growth (Arora, 2000). Nigeria has recorded a fast and high growth profile in the past few years. One thing that is however apparent and a source of amplified concern and agitation in the midst of the economic growth profile among researchers and analysts is that; while the inequality gap is widening, poverty incidence is escalating, and socio-demographic indicators are degenerating. Economic growth in Nigeria which has driven mostly by oil sector has not been able to generate the level of human capital that helps to narrow the inequality gaps and address the endemic pervert in Nigeria.

Besides, the insufficient human capital (health) needed to alleviate poverty spurs the economic growth, the actual effects of health on economic growth remain mixed and inconclusive. The different outcomes that emanated from empirical findings have made the contributions of health to reducing poverty and enhancing economic growth a subject of controversy and debate among scholars and policy-makers. Therefore, the question that would readily come to the fore in the midst of these controversies is whether or not health contributes to poverty reduction and economic growth? If it does, what is the actual effect? How significant? What role does poverty alleviation play in the health-growth nexus? For example, an empirical investigation which suggests that improvement in health lowers infant mortality, increase life expectancy could spur the necessity for putting in place health led-growth enhancing policy reforms. In contrast, if it is observed that improvement in the health status of the people is growth-enhancing, then it would be noted that social returns on policies that improve health status have mainly been understated, and thus health improving policies would be part of the set of intervention measures to promote well-being and increase growth.

1.2 The Objective of the Study

The main objective set to be achieved by this study is to examine the implication of improvement on life expectancy for economic growth and the role poverty

reduction plays in their relationships in Nigeria. Specifically, it analyses the relationship between growth and health, Poverty and life expectancy and also examines the impact of the interaction of health (life expectancy) and poverty incidence on economic growth.

1.3 Motivation and Significance

A plethora of empirical literature on the effects of human capital development (education and health) on economic growth exist in Nigeria with varying outcomes. The conflicts in outcomes of these studies make them of little policy relevance especially on the issue of health and economic growth. Therefore, the need to determine the actual effect of health on economic growth becomes imperative. Health expenditure produces important health indicator like life expectancy which has important implication for poverty reduction, however, most of these studies that examined their economic growth-health relationship omitted the role poverty reduction could play in the nexus. More so, Nigeria according to the recent Brookings Report in 2018 on global poverty has been rated as the most impoverished country in the world, hence, the need for urgent policy action toward addressing the endemic poverty condition in Nigeria. If measures of welfare are encapsulated more mainly than the regular income or consumption dimension, then poor health status could be described as poverty because it is capability deprivation (Sen, 1999). In Sen (1999) postulation, Poverty is capability deprivation. Human capital developed index echoes attainment in basic human capabilities (this includes: leading a long life, being knowledgeable and enjoying a good living standard) that can be represented by health, education and income (UNDP, 1990). This study, therefore, brings to limelight the inbred seed of poverty reduction in human capital development and particular health investment and its actual effect on economic growth and poverty incidence in Nigeria.

2.0 The Trend in Economic Growth, Health and Poverty Incidence in Nigeria

This section shows the evolution of economic growth, health and poverty incidence in Nigeria within the period 1980-2017. Nigeria's economy over the past few years has arguably recorded a fast economic growth, Figure I shows the average GDP Per Capita (Current US\$) and average GDP growth (annual %) based on 10-year point interval. Comparatively, Nigeria GDP growth has

been volatile within the period under review. By 1980, the economy based on GDP growth has a better outlook of (.6.9%) when compared with sub-Saharan Africa and World total GDP growth of 4.2% and 4.3% respectively. By 1990, while the World total and sub-Saharan Africa GDP growth remained positive at 3.0% and 1.4% respectively, Nigeria experienced a gloomy economic outlook with a negative economic growth rate of -1.4%. Since 1990, the economy has maintained a consistently positive outlook. Nigeria GDP growth rate went as high as 8.9% when the World total and sub-Saharan Africa growth rates were 2.8% and 5.6% respectively in 2010. However, the world total had remained relatively stable since 2010 till date whereas Nigeria and sub-Saharan Africa growth rates have been on a decline.

Similarly, a comparative survey of GDP Per Capita revealed a consistent and upward increase. The world total has remained consistently high above Nigeria and sub-Saharan Africa. Compared with sub-Saharan Africa, Nigeria's per capita GDP is almost at par except in 2017 when Nigeria overtook sub-Saharan Africa.

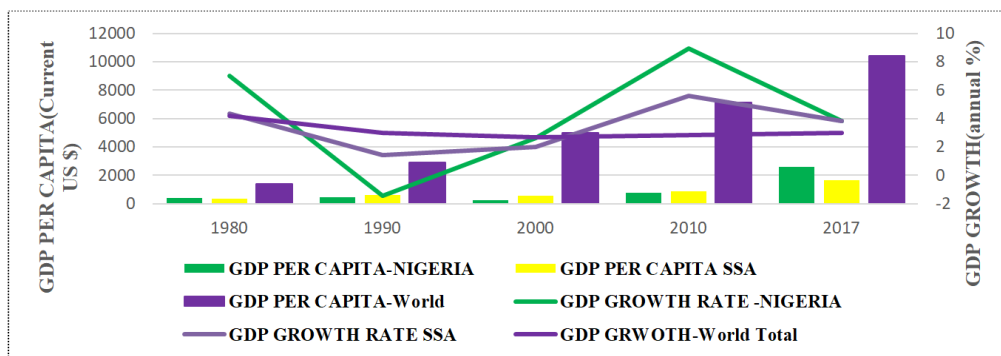


Figure I: Trend in GDP Per Capita and GDP Growth Rate 1980-2017

Source: Computed from World Bank Development Indicators, 2018. The trend in GDP Per Capita and GDP Growth Rate based on 10-year point interval

Though Nigeria's Per Capita has been increasing, human development indicators have consistently remained low. Nigeria is classified among the low human development countries and ranked 157 based on latest ranking out of 189 countries (United Nations, 2018). Human development index is a composite index incorporating health (leading a long life), education (being

knowledgeable) and income (enjoying a good living standard). Improvement in health (life expectancy) is a critical component of the human development index that has implications for economic growth and poverty reduction in Nigeria.

Figure II below shows the trend in life expectancy in Nigeria, sub-Saharan Africa and the World total between 1980-2017 based on 10-year average point interval. Though the least when compared with the region and the world's average life expectancy, there has been a marginal improvement in health status as manifested by the indicator. In 1980, life expectancy was 42.9 years in Nigeria at the time when sub-Saharan Africa and World total was 46.3 years and 60.7 years respectively. However, by 1990, Nigeria had a better percentage increase of 6.8% in life expectancy compared with sub-Saharan Africa (6.3%) and world total (5.5%).

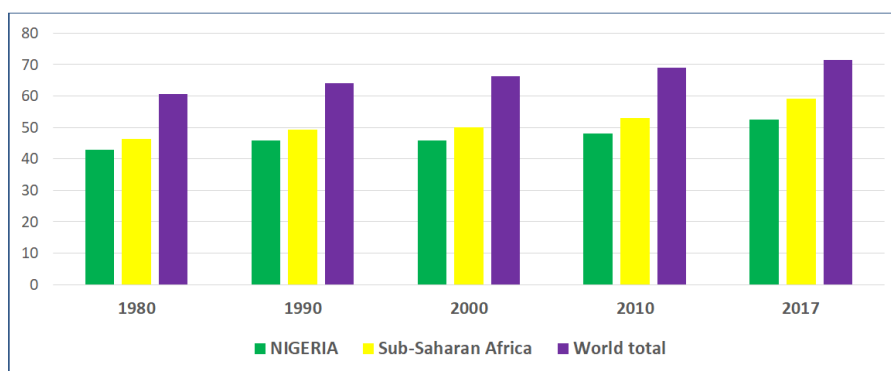


Figure II: Trend in life expectancy 1980-2017

Source: Computed from World Bank Development Indicators, 2018. The trend in life expectancy based on 10-year average point interval

In absolute term, the world had consistently remained highest, followed by sub-Saharan Africa and Nigeria as revealed in Figure II.

Improvement in health has implication for the level of poverty. Improvement in health could imply more long life, better employment and an increase in savings due to growth in output per head with an overall impact on people's well-being and better economic performance. As exemplified below, Figure III shows the trend in poverty incidence using \$1.90 per person poverty line based

on 2011 Purchasing Power Parity. Poverty situation in Nigeria has been degenerating as demonstrated by the pattern.

Available official records as at 1980 put the poverty figure at 46.18% (73 million people). By 2005, poverty has nosedived to 92million (55.81%). Recent estimates have put the figure above 120million (64.61%) and classified Nigeria as the most impoverished country in the world where 4/10 persons enter and move out of poverty every minute (World Bank, 2018). The recent poor poverty situation may not be unconnected with slow economic performance due to fall in oil price which has negative implications for macroeconomics indicators in Nigeria.

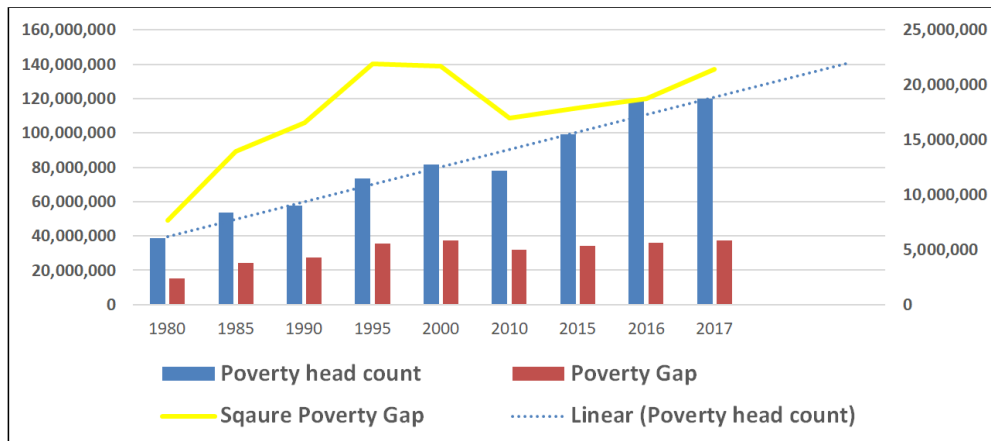


Figure III: Poverty trend in Nigeria (1980-2017)

Source: Computed from World Bank Development Indicators, 2018. The trend in poverty indicators based on 5-years average point interval.

However, improvement in human capital development amongst other macroeconomic indicators could help drive down the poverty and contribute to economic growth.

Potential channels of Life Expectancy-Poverty-Economic Growth Nexus

The relationships between health improvement, poverty and economic growth are multi-dimensional. As exemplified in Figure IV, increase in health or health expenditure results in health outcomes like life expectancy, under-5 mortality,

and maternal mortality among others. Increase in health aids longevity, allow people to work for more extended hours, assist in proper learning and rational thinking. Health improvement is a measure of enhancing human capabilities and poverty reduction given that poverty is viewed in a broader spectrum to mean capabilities deprivation (Sen, 1999; United Nation, 1990). Health can be regarded as output or growth determining factor because it contributes to poverty alleviation by increasing workers' productivity which translates to the possibility of increased earning with positive multiplier consequence on well-being. The level of poverty determines to a greater extent how productive the population of the country could be.

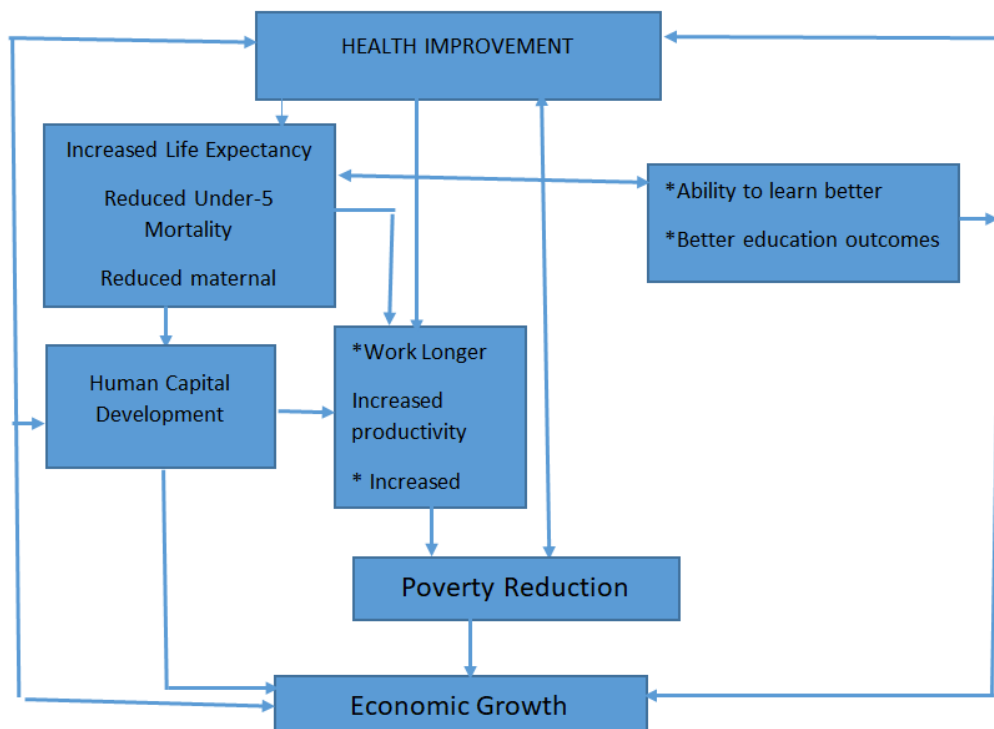


Figure IV: Transmission channels health flows to Poverty and Economic Growth

Source: Authors Construction, 2018

3.0 Review of the Literature

This Section deals with theoretical and empirical review of the literature life expectancy-economic growth nexus and life expectancy-poverty relationships.

3.1 Life Expectancy and Economic Growth

Theoretically, the controversy concerning the role of health as economic growth propeller remains unsettled because health expenditure could have two parallel effects (positive direct and adverse indirect effects). The positive direct effect is enshrined in the endogenous growth model postulation (Piabou and Tieguhong, 2017). From this stem, two growth models could be comprehended. Firstly, those who adore health as an integral part of human capital and a catalyst in production function and those who accorded health as a direct determinant of economic growth. Key to these models is that an increase in productivity is a positive function of improvement in health. As long as life expectancy increases, productivity will increase thereby encouraging people to invest in human capital development and expand in the pool of knowledge for individuals (see Ngangue and Monfred, 2015). In the theoretical model developed by Buchanan, (1965), irrespective of the demand for health, the motivation for investment in health should be its implication for people's well-being and economic growth. Besides, advancement has been made in developing models that accord human capital a central position in economic growth. Romer (1986) and Baro (1991) emphasised the place of human capital as a propelling force in economic growth. In fact, even the augmented Solow model was so emphatic about the importance of human capital in boosting economic growth. In sum, endogenous growth is of the assertion that there are inequalities in economic performance. In endogenous paradigm, it is human capital that is responsible for economic development.

Secondly, the neoclassical and Keynesian economic theories capture the indirect and adverse effect of public expenditure on economic growth. Accordingly, a significant amount of public fund is required for investment in health. To raise this amount, the government increase taxes, which could which could impact negatively on people's well-being and slow down the level of economic activities. From the Keynesian perspective, an increase in savings due to an increase in life expectancy results in contraction of economic activities due to the reduction in aggregate demand. In the neoclassical growth paradigm,

economic growth depends on savings, and population, Solow (1956) postulated that per capita income growth would increase in countries where saving rate and the population is higher. The theory concludes that the difference in Economic growth performance across different countries is a function of the amount of savings and population.

Empirically, several existing studies both in developed and developing countries have examined the implications of health and life expectancy on economic. However, the results that emanated from these researches were mixed and inconclusive. While some studies firmly alluded to the positive nexus between life expectancy and economic growth, others revealed the relationship between them is inverse whereas others demonstrated their relationship to be ambiguous.

In an econometric panel study of 84 countries, Barro (1996) pointed out that a 10% improvement in life expectancy propelled GDP growth positively from 0.52% to 0.62%. In a related study involving a panel of 104 countries, and by employing a convergence approach. Evidence from Bloom *et al.* (2001) shows a strong indication that a year increase in longevity or life expectancy stimulates economic growth from 2.6 to 4% of GDP. Their finding collaborated endogenous growth theory's stand on the implications of health expenditure (a component of human capital) in stimulating output by improving human capital. Following the same logic, findings of earlier extant studies (Bloom and Sachs, 1998; Gallup *et al.*, 1999; Bloom *et al.*, 1999; and Lorentzen *et al.*, 2008) show that economic growth is a positive function of an increase in life expectancy.

Similarly, Aghion *et al.*, (2012) was able to establish a positive and significant linkage between life expectancy and growth in OECD countries by proposing a unified framework which incorporates the growth impact of health improvement and the level of health between 1960 and 2000. Based on the findings of the study, a conclusion was drawn that initially at the beginning, high-level life expectancy and significant improvement at the later stage contribute significantly to income per head. Examining the impact of life expectancy and economic growth involving a panel of 141 developing countries between 2000-2013 by employing Generalised Method of Movement (GMM)

estimator, Ngague and Manfred, (2015) also revealed that life expectancy affects economic growth positively, though the result was conflicting when the countries were classified into different income growth. The outcome was positive but insignificant in middle-income countries.

In another study involving OECD countries, Ekevit (2013) examined how economic growth responds to improvement in life expectancy by using a panel of data between 1970-2010. The study employed panel OLS, Pedroni and FMOLS to investigate the nature of the relationship between economic growth and life expectancy. The results that stemmed from the investigation was enthralling and upheld a positive and significant relationship between life expectancy and economic growth. Additionally, Orisanwa, (2015) investigated the relationship between health expenditure and economic growth in Nigeria covering 1995 to 2009 in which cointegration and Granger causality tests were deployed in the analysis. Emanated outcomes of the study shows that health expenditure produces health indicators such as life expectancy which has a positive long-run impact on economic growth in Nigeria. In other words, the revelation from the study shows that life expectancy Granger cause economic growth.

In analysing the determinants of economic growth in Nigeria between 1980 - 2010, Ajide, (2014) x-rayed the role of Frazer Economic Freedom Index in FDI-led growth in which multivariate regression method was deployed to determine augmented growth models. The study gave a convincing and fascinating, evidence on the impact of life expectancy among other factors on economic growth in Nigeria. The economic growth-effect of life expectancy and the potential of health expenditure in elongating life expectancy led to the conclusion that health spending should be strengthened.

Another body of literature, however, found contrary outcome on the impact of life expectancy on economic growth. For example, Ogunleye *et al.*, (2017) investigated the role of human capital development in economic growth in Nigeria between 1981 to 2015. The study leans on ordinary least square method, and the emanated results show that life expectancy inversely correlates with economic growth in Nigeria. Correspondingly, Acemoglu and Johnson, (2007) examined the effect of life expectancy on economic growth by exploiting key

international health enhancement from the 1940s. Constructing predicted mortality by using pre-intervention death from different diseases and date intervention was initiated globally, the study revealed that a 1% improvement in life expectancy leads to 1.7-2% increase in population but found no evidence of growth in per capita income arising from a substantial increase in life expectancy.

Browser, (2010) examined the effect of life expectancy on economic growth in the United States between 1970-2000 by employing 2-stage regression methods in the analysis. The results that originated from the study were ambiguous. When a difference in ordinary least square method was used at the state level, all six models in the survey showed an inverse relationship between life expectancy and economic growth. However, extending the method of analysis to ordinary least squares regressions of log difference in difference was used to test the relationship when the states were merged, both positive and negative outcomes were obtained. More so, the results of the 2-stage least square were ambiguous all through the models.

In sum, the outcomes of the above studies on the impacts of life expectancy are mixed, ranging from positive to negative and ambiguous thus making the dust on the effects of health expenditure and life expectancy on economic growth unsettled. Specifically, Cervellati, (2009) stressed that what is imperative in the relationship is the channels through which the benefits of life expectancy flows to economic growth.

3.2 Life Expectancy and Poverty Incidence

In examining the nexus between life expectancy on the linkage between health expenditure, life expectancy and poverty also exists both in the advanced and developing countries. Some studies found health and life expectancy to be of great benefit to poverty reduction with positive multiplier impact on economic performance. For instance, Bloom and Canning (2000) in a study of 31 countries discovered a 10% increase in life expectancy would reduce income inequality for 25 years and improve economic growth performance.

Examining the implication of health improvement on economic growth and poverty reduction, WHO, (2002) revealed that increase in health spending could

imply positive health indicators such as life expectancy, under-5 mortality which could contribute to savings and investment, improvement in well-being and poverty reduction and by implication contributes to economic growth positively. Riman and Akpan (2010) studied the direction causality between health expenditure and poverty incidence in Nigeria by employing the Granger causality test and Vector Error Correction Model (VECM) method of analysis. The study found strong causal bi-directional connections between life expectancy and poverty in Nigeria. The study drew an inference based on the finding that improvement in life expectancy could lead to poverty alleviation and spur economic growth in Nigeria. More so, poverty reduction could lead to improvement in life expectancy, improve output per head and general performance of the economy.

Atake (2018) investigated the impact of health shocks in three sub-Sahara African countries (Burkina Faso, Niger and Togo) on poverty. The study made use of house surveys and adopted a 3-step Generalised Feasible Least Square methods of analysis; findings that emanated from the study showed that health shocks resulted in poor health indicators and aggravated poverty incidence by 9.04%, 33.69%, and 69.03% in Burkina Faso, Niger, and Togo respectively. The study based on outcome concluded that poverty arising from health shocks is the cause of economic or growth loss in sub-Saharan Africa.

3.0 Theoretical Framework and Methodology

Arrays of growth theories have stressed that output is a function of input factors such as labour and capital and savings rate, but few have anchored economic growth on the wheel of human capital. From the neoclassical growth pavilion, health or life expectancy will have restricted impact on economic growth because of the limiting assumption of diminishing return. Hence, economic growth will be disadvantaged with an increase in human capital. However, respite came with the discovery of endogenous theory as it laid to rest the limiting assumption (diminishing return) of the neoclassical growth theory. The endogenous theory, therefore, opens the lid that life expectancy can be a vital force in propelling economic growth in the long-run. The impact of life expectancy on economic growth has been well documented in the literature.

In this milieu, the endogenous growth model by Lucas (1998) and popularised in empirical works (Acemoglu and Johnson, 2007; Maddsen, 2012) will be used as the anchor to introduce health as a potent driver of economic growth. Human capital according to Lucas (1998) is a direct factor in production like labour and capital. Health investment according to this theory is a fundamental factor in human capital development. Human capital is assumed to have a direct positive internal impact and indirect positive spillover effects on economic growth.

Besides human capital being key among other factors of economic growth, the place of poverty reduction in creating the climate for human capital to have easy access to economic growth is sacrosanct. The potential effects of poverty reduction on economic growth have earlier been expounded in literature. Poverty according to Sen (1999) is capability deprivation. Health according to the United Nations (1990) is a form of basic human capabilities. Therefore, improvement in health or life expectancy helps to reduce the level of human deprivation as contrite to economic growth.

3.1 The Model

The growth-life expectancy-poverty relationships will be analysed by using the Generalised Method of Movement (GMM) estimator by Blundell and Bond (1998). This method is adopted for this study because it addresses the possible problem of endogeneity, a common problem with time series data by estimating instrumental variables, unlike the ordinary least square (OLS) method which does solve the problem of endogeneity and reverse causality. A robust estimator is generated by employing the system Generalised Method of Movement (GMM) estimator. The adoption of this method is premised on the assumption that the variables do not exhibit serial correlation problem. In other words, the error term and the instrumental variables are not correlated in the specifications or functions linking the dependent variable with the independent variables that are lagged levels of series of the equations that have been detrended in the first order to eliminate the non-stationarity.

The system GMM estimator functions by solving simultaneously the endogeneity problem that exists at level equation and difference equation. This is possible because it uses instrumental variables in first differences for the level equation in addition to the use of instrumental variables in levels for the first

difference equations. Lags of endogenous variables are used as instrumental variables (Lu, C. *et al.*, 2010). The instrumental variables are used in the first-differenced estimator that contain information about the endogenous variables in first differences, and the lagged first differences are informative instruments for the endogenous variables in levels (Roodman, D., 2009).

In order to estimate the level of output growth in the economy, the convention Cob-Douglass function is stated as:

$$Y_t = BL^\lambda K^Y \quad (1)$$

Where Y_t is the level of output in an economy at any time t . It measures changes in economic growth and it is proxy by per capita income in this study. K is the amount capital and it is represented by fixed capital formation, L is the amount of labour and is represented by the labour force. In line with Lucas (1998) and empirical research by Maddsen (2012), Acemoglu and Johnson, (2007), life expectancy can be introduced into the function as a factor in the production process. Earlier argument put forward as life expectancy or human capital strongly impacts on the efficiency of investment and the poverty-reducing effect of life expectancy conditions this impact. The model could be specified in line with Omran and Bolbol (2003) by specifying the interaction of life expectancy and poverty as the key variable influencing investment efficiency (Total Factor Productivity). Therefore, equation (1) can be re-written as:

$$Y_t = B(LEXP.POV)L^\lambda K^Y \quad (2)$$

Where Y_t is output as earlier defined, B is the efficiency of capital, $LEXP$ is life expectancy which defines the stock of human capital, POV represent poverty measures (Poverty health count, poverty gap and squared poverty gap), K is the amount capital and it is represented by fixed capital formation, L is the amount of labour and is represented by labour force, whereas λ and Y represent the proportion of labour and capital. By taking the log differential of equation (2) we obtain:

$$\Delta Y_t = B'(LEXP.dPOV + POV.dLEXP)/B + \lambda L' + YK' \quad (3)$$

Where $\Delta Y_t = \text{growth rate}$, $B' = \text{derivative of } B$ with respect to the interaction variable $LEXP.POV$. Note that $dLEXP = \text{life expectancy}$ and $B'Y_t/B = \delta$ is the marginal product of investment efficiency (TFP) arising from $\Delta LEXP.POV$, equation (3) be re-written as:

$$\Delta Y_t = \delta . LEXP . dPOV / Y_t + \delta POV . LEXP / Y_t + \lambda L' + YK' \quad (4)$$

The variable $POV . LEXP / Y_t$ in equation (4) encapsulates the interaction between poverty measures and the proportion of life expectancy. In addition, equation can be transformed into a function that can be estimated. This can take place if K' can be represented by capital formation and $\delta LEXP . POV / Y_t$ is designated as constant term and per capita gross domestic product (PCGDP) is reasonable replaced for the change Y/L .

Taking life expectancy (LEXP), health expenditure (HEXP), education expenditure (EDEXP), educational attainment proxied by expected years of schooling, poverty (POV), gross capital formation (CAP) and Labour force (LF) as variables that determine economic growth in this study, equation (4) becomes:

$$PCGDP = \theta + a_1 LEXP + a_2 HEXP + a_3 EDEXP + a_4 EYS + a_5 POV + a_6 CAP + a_7 LF + \mu \quad (5)$$

Equation (5) can be transformed into a log form as:

$$\ln PCGDP = \theta + a_1 \ln LEXP + a_2 \ln HEXP + a_3 \ln EDEXP + a_4 \ln EYS + a_5 \ln POV + a_6 \ln CAP + a_7 \ln LAB + \mu \quad (6)$$

Where $\ln PCGDP$ is log per capita GDP (current of US\$). It is GDP divided by the population. It serves a measure of economic performance in a country. $\ln LEXP$ is the log of life expectancy at birth, $\ln HEXP$ is log of health expenditure as a percentage of GDP, $\ln EDEXP$ is log of education expenditure as a percentage of GDP, $\ln EYS$ is the log of expected years of schooling as a proxy for educational attainment. Also, $\ln POV$ is the log of poverty measure such as poverty headcount, poverty gap and squared poverty gap, $\ln CAP$ is the log of gross capital formation as proxy for capital, $\ln LF$ is the log of labour

force as a proxy for total labour for age 15 years and above, θ represents the constant, μ is the disturbance term. The parameters $a_1, a_2, a_3, a_4, a_5, a_6, a_7$ are the coefficients or elasticities which measure how the dependent variable reacts to changes in the explanatory variables.

Following John and Shirin, A. (2015), the Generalised Method of Movement for the model can be specified as:

$$\begin{aligned} \ln PCGDP = & \theta + a_1 \ln PCGDP(-1) + a_2 \ln LEXP + a_3 \ln HEXP + \\ & a_4 \ln EDEXP + \\ & a_5 \ln EYS + a_6 \ln POV + a_7 \ln CAP + a_8 \ln LAB + \mu \end{aligned} \quad (7)$$

$$E[\delta_t] = E[\mu_t] \quad (8)$$

Where $\ln PCGDP(-1)$ is the lag of the dependent variable.

Similarly, the model depicting the impact of life expectancy can be specified as:

$$\begin{aligned} \ln POV = & \theta + a_1 \ln POV(-1) + a_2 \ln LEXP + a_3 \ln EYS + \\ & a_4 \ln EDEXP + a_5 \ln INT + a_6 \ln POL + a_7 \ln REGU + a_8 \ln DEBT + \mu \end{aligned} \quad (9)$$

Where $\log \ln POV$ is the poverty measure as earlier defined, $\ln POV(-1)$ is the log of lag value of poverty, $\ln LEXP$, $\ln EYS$, $\ln EDEXP$ and $\ln REGU$ are the log of life expectancy, log of expected years of school, and log of education expenditures respectively. $\ln INT$ is the log of real interest rate, $\ln POL$ is the log of political instability and terrorism, $\ln REGU$ is the log of institutional quality measured by control of regulation and $\ln DEBT$ is the log of debt stock.

Therefore, incorporating the interactive effect of life expectancy on poverty and their impact on economic growth, the model can be specified as:

$$\begin{aligned} \ln PCGDP = & \Psi + \beta_1 \ln PCGDP(-1) + \beta_2 \ln LEXP + \beta_3 \ln LEXP \cdot POV + \\ & a_3 \ln HEXP + \\ & a_4 \ln EDEXP + a_5 \ln EYS + a_7 \ln CAP + a_8 \ln LAB + \mu + \end{aligned} \quad (9)$$

Equation (9) captures the impact of the interaction variable ($\ln LEXP.POV$) on the dependent variable. This will be analysed with aid of Generalised Method of Movement estimator also.

However, before analysing the above equations, it is important to conduct the unit root and cointegration tests to determine the order of stationarity and also to ascertain whether there is a long-run relationship between the variables. This is because time series data are usually not stationary on the long-run, hence the need to detrend. The Augmented Dickey-Fuller (ADF) and Philip Perron (PP) tests are used to achieve the order of stationarity whereas the Johansen's Co-Integration Test will be conducted to determine if the variables are cointegrated.

3.2 Data, Source and Apriori Expectation

This empirical research makes use of time series data from 1980 to 2017 to investigate the impact of life expectancy on economic growth, and the role poverty reduction plays in their relationship. Data from World Bank Development Indicators (2018), National Bureau of Statistics (NBS). The use of World Development Indicators is based on the fact that not all the data used for this study are readily available at the country level, however, it is the most dependable source of data. The empirical work of Mandiefe and Tieguhong (2015), Ogunleye *et al.*, (2017) that considered GDP per capita as a measure of economic growth serves as the motivation for the choice of this variable.

It is the dependent variable in the model that expresses the relationship between economic growth, life expectancy and the interaction variable. Log Life expectancy is the leading independent variable of interest. It is the number of years a child born in Nigeria today is expected to live if all the conditions remain unchanged. Life expectancy is likely to contribute to economic growth positively and exhibit a negative correlation with poverty incidence. The log health expenditure as a percentage of GDP is used as the health input variable. Besides, Log expected years of schooling is used as an educational outcome which is likely to impact on economic growth positive in line with Ogunleye *et al.*, (2015). Other variables: gross fixed capital formation is used as a proxy for capital; a variable which naturally should contribute positively to economic growth.

The log of the labour force is used as a proxy for the total labour force. Total labour force is expected to have a positive relationship with economic growth. Another important variable is poverty incidence which is defined as capability deprivation or inability to meet basic necessity. Three measures of poverty will be used: These are poverty headcount ratio which measures the percentage of the population said to be poor based on \$1.90 using 2011 prices. The second poverty measure is the poverty gap which measures the intensity of poverty instead of taking an absolute figure as in poverty headcount ratio. The Third variable is the squared poverty gap which measures the severity of poverty. It estimates how poor are the poor below the poverty line. Poverty is expected to impact on economic growth negatively.

In the second model involving poverty and life expectancy, poverty measures become the dependent variable. This model tends to analyse how poverty respond to changes in life expectancy. An inverse relationship is expected between life expectancy and poverty incidence (See Atake, 2018). Poverty and life expectancy have already been defined earlier. Other variables include, expected years of school as a measure of educational attainment. Again an inverse relationship is assumed between poverty and educational attainment. Educational attainment is proxied by expected years of school (the number of years an entrance child is likely to spend in school throughout his life cycle if the condition at the time of entrance remains the same).

Other variables that naturally should impact on the level of poverty are; access to finance represented by the interest rate. This is defined as the real interest rate and expected to have a direct proportional relationship with poverty. Increase in interest rate implies low access to finance, and worsening poverty situation. Regulatory quality is another variable believed to impact of the level of poverty. Regulatory quality is the perception about the ability of the government to make sound policies that will lead to private sector development. This is expected to contribute to poverty reduction positively. The stock of debt is another variable which is considered important in the model. A proportional relationship is expected between debt stock and poverty reduction. The final variable in this model is Political Stability and Absence of Violence/Terrorism. This measure the possibility of political instability or the possibility of politically motivated violence.

Model (7) is extended to capture the interaction variable. This is depicted in the model (9). The interaction variable captures the potential effect of the interaction between life expectancy and economic growth. A positive relationship is expected between the interaction variable and economic growth.

3.3 Presentation of Result, Analysis, Conclusion and Policy Relevance

This section deals with the presentation of the results of the study, analysis of the results, the conclusion and policy relevance. Nigerian secondary time series data from 1980 to 2017 was used in this study. The data were obtained from the World Bank Development Indicator, (2018) and Data from the National Bureau of Statistics (2018). One obvious feature of time series data is that they are not usually stationary, hence using them in the analysis might produce results that are not dependable for the forecast. To solve this problem, we conduct unit root test to determine the point of stationary of the data. This helps to detect the change in value in absolute term and any potential cyclical change. We detrend the data until we arrived at stationary and at what level. All the data were transposed into their log form before conducting the tests.

3.4 Unit Root Test

The results of the Augmented Dickey-Fuller (ADF) test to test for unit root for all the variables in the two models are presented in Table 1. The outcomes show that all the variables at stationarity at first difference. Since the data attained stationarity at first difference, it means the variables can be studied to make predictions beyond the period under consideration, it is, therefore, pertinent to investigate whether there exist long relationships among the variables. This will be achieved by conducting the Unrestricted Cointegration Rank Test (Trace) and Unrestricted Cointegration Rank Test (maximum Eigenvalue). Since they are two main models to be analysed, two cointegration results will be presented for each of the models.

3.5 Cointegration Results for the Relationship between PCGDP and Life Expectancy

The cointegration results of the variables involved in model 7 are shown in Table 2 and 3. The emanated outcomes show that there are 5 cointegrating equations based on the Rank test (trace).

Statistics and 4 cointegrating equations from the Rank test (Maximum Eigenvalue) at 5% level of significance. The results from the tests point to a long-run relationship between the variables (PCGDP, LEX, CAP, LAB, HEXP, EDEXP, EYS and POV) in the model. We, therefore, reject the null hypothesis of no cointegration at 5% level of significance and accept the alternate hypothesis.

More so, we present the cointegration results involving variables in model 9 to determine whether or not there is a long-run nexus among the variables between poverty (dependent variable) and the independent variables. The outcomes from the analysis are presented in Tables 4 and 5. The Trace statistics and Maximum Eigenvalue showed that there are 5 and 3 cointegrating equations respectively. We, therefore, reject the hypothesis of no long-run relationship at a 5% level of significance and accept the alternatives hypothesis that there is a long-run relationship among the variables (POV, LEX, EYS, HEXP, INT, POL, DEBT and RUGA). We, therefore, proceed to determine the nature of long-run relationship using Generalised Method of Movement estimator using model 7, 8 and 9.

3.6 System GMM Estimates of Per Capita GDP (PCGDP) Equation

The study made use of two-step system GMM estimator to examine the relationship in the equation. All the variables in the model except capital, health expenditure and poverty headcount ratio significantly impact economic growth through their impact of per capita income in this study. However, in terms of a priori expectation, only poverty headcount ratio had a different impact with a positive sign of economic growth.

Life expectancy exhibits a significant positive impact on per capita income. This is consistent with the argument from Barro and Sala-i-Martin (2004) and Lorentzen *et al.*, (2008) and the empirical work of Ajide, (2014) that increase in life expectancy, portend a good prospect for economic growth as it had a positive impact. A positive rise in life expectancy will result in 15.4% (-2.031739*) in economic growth. Though health expenditure influence economic growth positively, the effect is weak at 5% (0.331780**). The result joins forces with an earlier finding by Oni (2014). Other control variables such as education expenditure and expected years of school (a proxy for educational

attainment) exact positive and significant impact on economic growth in line with Dauda, (2010), Lawanson, (2009) and Appiah, (2017). The results show that an increase in education expenditure and educational attainment contribute positively to economic growth by 5% and 18% respectively.

Poverty measures had a mixed outcome on economic growth. While the two indicators (the poverty gap and squared poverty gap) impact on economic growth negatively, the poverty headcount ratio gave a positive pointer. Economic growth responsively poverty headcount by 3.5% though insignificant (0.059745**) at 5% level. This is contrary to the expectation on the impact of poverty on economic growth. However, the poverty gap and squared poverty gap significantly affect economic growth negatively. An increase in the depth and severity of poverty result in an economic loss by 17.8% and 46.7% respectively.

3.7 System GMM Estimates of Poverty Incidence (Poverty Measure) Equation

The GMM results of poverty measures in model 8 are presented in Table 7, 8 and 9 with poverty headcount, poverty gap and squared poverty gap as the independent variables respectively. Results from the analysis show that life expectancy contributes to poverty reduction in all the analysis with significant impacts. For instance, an increase in life expectancy, an important outcome of health spending leads to a reduction in absolute, depth and severity of poverty by 7.2%, 13.1% and 11.8% respectively. In fact, increase in health expenditure will contribute to absolute, depth and severity measures of poverty by 7.2%, 6.5%, and 7.9% correspondingly. This is consistent with existing outcomes of studies (Riman and Akpan, 2010; and Ateke, 2018) on the inverse relationship between poverty reduction and life expectancy.

Similarly, variables which naturally impact on the level of poverty are consistent in their character. An increase in educational attainment contribute to a reduction in poverty headcount, poverty gap and poverty squared gap by 12%, 9.2% and 6.6% respectively and are statistically significant. In other words, there is a significant negative relationship between educational attainment and poverty incidence. Again the impact of variables like debt stock (BEDT), real interest rate (INT), political instability, violence/terrorism (POL)

and regulation (REGU) all contribute to increase in poverty as symbolised by signs of their coefficient. For example, an increase in the real interest rate and an indicator of access to finance contribute by worsening poverty incidence. It worsens the poverty headcount ratio, poverty gap and squared poverty gap by 2.15, 11.7% and 12.2% respectively. In the same vein, the stock of debt increases absolute, depth and magnitude of poverty by 0.9%, 1.4% and 3.3% respectively. Among these variables, political instability, violence/terrorism has the potential of escalating poverty incidence in Nigeria by 11.1 % (Poverty headcount), 10.7% (poverty gap) and 7.7% (square poverty gap). Regulatory control has the potential to contribute to poverty reduction as shown by the inverse signs. It has the potential to reduce poverty headcount by 2%, poverty depth by 1.1% and 3.6% of poverty severity.

The respective R^2 values of 97%, 96%, 91% and 90% in Table 6, 7, 8 and 9 show that the models exhibit perfect relationships between the dependent variables and explanatory variables. Even after normalising the impact of insignificant variables, the adjusted R^2 values (96%, 95%, 90 and 87%) indicate a very good model. The Durbin-Watson statistics across the models are higher than respective values of R^2 indicating that the models are nonspurious and good for predicting the future outcome of the dependent variables.

Model 7 which was used to analysed the impact of life expectancy on economic growth was extended to capture the interaction variables in model 9. The result incorporating the interaction variables is presented in Table 10. Here, life expectancy interacts with all the poverty measures (poverty headcount, poverty gap, and squared poverty gap). The results of the analysis were quite appealing as all the interaction variable had a positive and significant impact on economic growth. More intriguing is that life expectancy potential positive impact on economic growth is 7.8%, however, when interacted with poverty measures as shown by INTRA1 (life expectancy with poverty headcount), the impact is stronger and positive with a potential impact of 12% on economic growth. When interacted with the poverty gap, the result was more interesting with a potential positive impact of 13.4% on economic growth. In addition, when life expectancy interacted with the squared poverty gap, their potential impact on economic growth was 16.7%. In other words, improvement in health or human

capital has a multiplier impact on economic growth by normalising the negative effect of poverty incidence on economic growth in Nigeria.

Conclusion and Recommendations

This paper investigated the effect of life expectancy on economic growth (proxy per capita income) in Nigeria and the role poverty reduction plays in their connection by employing two-stage Generalised Method of moment estimator in the analysis. Life expectancy was used because of it an important health outcome and key element among the health indicators in human capital development index (United Nations, 1990). Poverty measures used are such that will provide and deepen understanding of the impact of poverty on economic growth. These measures are poverty headcount, poverty gap and squared poverty gap. The result that emanated from this finding supports the notion that health improvement is key to enhancing well-being and stimulate economic growth. The impact of life expectancy was found to be strong and significant. Though the magnitude of the impact differs across the model, the results gave the justification for improvement. Besides its strong positive impact on economic growth, emanated results from the analysis show that life expectancy has the potential to reduce poverty and contribute to economic growth in Nigeria. When life expectancy interacted with poverty measures, the potential positive impact was more fascinating than the potential “alone impact”.

As observed by Gonzalez-Eiras and Niepelt (2012) and Cervellati, (2009), it is not just enough that health expenditure produces outcomes that impact on economic growth but more importantly the channel through which it flows. Recently, Nigeria has been decorated as the poorest country in the world and may have the highest poverty when compared with world total by 2030 (Brookings Report, 2018) if the poverty incidence is not checked with spirited action from government, the private, donor agencies and the citizens. Health improvement according to the finding of this study is fundamental to pulling Nigeria from the ocean of poverty towards achieving sustainable development number of no poverty by 2030.

Presently, life expectancy in Nigeria is not near the world total. It hovers around 53years whereas the performance of government in terms of health expenditure is quite abysmal as it was an average of 3.4% between 2000-2017(World Bank,

2018). Therefore, the government should increase health expenditure and provide our hospital with better facilities so as to improve longevity. Besides, the need to avert the frequent strike and brain drain through proper remuneration of the health workers is fundamental.

Other impact factors that are considered fundamental to economic growth were analysed by this paper. Health outcomes and education are complementary. Besides the fact that education expenditure and educational attainment contributes to economic growth positively by raising per capita income, they contribute to poverty reduction by the impact of health outcome, improve employment prospect, enhance earning and improve well-being. The government should, therefore, increase education spending because of this important spillover effect.

In addition, issues of escalating debt profile and rising interest rate are worrisome. Apart from the repayment of the principal which form a chunk of the annual budget, a huge amount is committed to service of these debts. This has a potential proportional relationship with poverty. As debt increases, resources that would have been used for development and to address poverty crisis are used to pay and service debt. While debt in itself is not bad, the need to ensure it is spent on the projects that improve well-being is imperative. More so, increasing interest rate is making access to finance difficult for millions of Nigerian involved in small and medium scale business with important bearing on employment generation, increase earning and poverty alleviation. Again, issues of political instability, violence/terrorism should urgently be curbed because it portends grave danger for poverty reduction as revealed by this study to smoothen the path to the realisation of Sustainable Development Goals (SDGs). Finally, the Nigeria government needs to strengthen the laws and regulations in this countries to create investment climate confidence, because it has the potential to reduce poverty in Nigeria.

Readings in UN-Sustainable Development Goals and the Lagos Region

Table 1: Unit Root Results

Variables	Augmented Test	Dickey-Fuller Critical Value @ 5%	Critical Value @ 10%	Stationary.
PCGDP	-5.318315	-2.945842	-2.611531	I(1)
CAP	-2.673294	-2.948404	-2.612874	I(1)
LAB	-3.127814	-2.945842	-2.611531	I(1)
LEX	-2.908752	-2.948404	-2.612874	I(1)
HEXP	-8.787281	-2.945842	-2.611531	I(1)
EYS	-5.811144	-2.945842	-2.611531	I(1)
EDEXP	-8.970298	-2.945842	-2.611531	I(1)
PHC	-5.701651	-2.945842	-2.611531	I(1)
INTRA1	-5.789587	-2.945842	-2.611531	I(1)
INTRA 2	-5.957201	-2.945842	-2.611531	I(1)
INTRA 3	-5.941431	-2.945842	-2.611531	I(1)
SPGAP	-5.810400	-2.945842	-2.611531	I(1)
REGU	-7.176363	-2.945842	-2.611531	I(1)
POL	-5.818264	-2.945842	-2.611531	I(1)
INT	-7.246196	-2.948404	-2.612874	I(1)
DEBT	-6.232245	-2.945842	-2.611531	I(1)
LEX.POV	-5.789587	-2.945842	-2.611531	I(1)

Source: Eview Computation, 2018

Table 2: Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.962300	473.0393	219.4016	0.0000
At most 1 *	0.950882	355.0275	179.5098	0.0000
At most 2 *	0.867298	246.5404	143.6691	0.0000
At most 3 *	0.759495	173.8331	111.7805	0.0000
At most 4 *	0.676409	122.5326	83.93712	0.0000
At most 5	0.076449	14.91469	18.06141	0.0663
At most 6	0.081137	16.98777	24.17493	0.0729
At most 7	0.051543	7.36765	8.27596	0.0498
At most 8	0.240577	11.77391	12.32090	0.0616
At most 9	0.050535	1.866851	4.129906	0.2022

Source: Eview computation, 2018

Trace test indicates 5 cointegrating eqn(s) at the 0.05 level * denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Table 3: Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesised No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.962300	118.0118	61.03407	0.0001
At most 1 *	0.957680	108.4871	54.96577	0.0000
At most 2 *	0.867298	72.70731	48.87720	0.0000
At most 3 *	0.759495	51.30049	42.77219	0.0046
At most 4	0.76409	40.61789	36.63019	0.0162
At most 5	0.496449	24.92692	26.43961	0.0634
At most 6	0.481137	23.62012	24.15921	0.0590
At most 7	0.351543	15.59374	17.79730	0.1041
At most 8	0.240577	9.907057	11.22480	0.0845
At most 9	0.050535	1.866851	4.129906	0.2022

Source: Eview Computation, 2018

Max-eigenvalue test indicates 4 cointegrating eqn(s) at the 0.05 level. * denotes rejection of the hypothesis at the 0.05 level **MacKinnon-Haug-Michelis (1999) p-values

Cointegration Results for the relationship between Poverty Incidence and Life Expectancy.

Table 4: Unrestricted Cointegration Rank Test (Trace)

Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.991623	446.6882	197.3709	0.0000
At most 1 *	0.927663	274.5257	159.5297	0.0000
At most 2 *	0.781301	179.9747	125.6154	0.0000
At most 3 *	0.759411	125.2526	95.75366	0.0001
At most 4	0.440832	48.96466	50.81889	0.0225
At most 5	0.436959	47.47928	47.85613	0.0542
At most 6	0.347222	26.80079	29.79707	0.1066
At most 7	0.270977	11.44616	15.49471	0.1855
At most 8	0.001898	0.068376	3.841466	0.7937

Source: Eview computation, 2018

Trace test indicates 5 cointegrating eqn(s) at the 0.05 level * denotes rejection of the hypothesis at the 0.05 level **MacKinnon-Haug-Michelis (1999) p-values

Table 5: Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.991623	172.1625	58.43354	0.0000
At most 1 *	0.927663	94.55094	52.36261	0.0000
At most 2 *	0.781301	54.72213	46.23142	0.0050
At most 3	0.659411	37.28795	35.07757	0.0219
At most 4	0.520832	26.48537	33.87687	0.2919
At most 5	0.436959	20.67849	27.58434	0.2961
At most 6	0.347222	15.35463	21.13162	0.2648
At most 7	0.270977	11.37779	14.26460	0.1363
At most 8	0.001898	0.068376	3.841466	0.7937

Source: Eview computation, 2018

Max-eigenvalue test indicates 3 cointegrating eqn(s) at the 0.05 level * denotes rejection of the hypothesis at the 0.05 level **MacKinnon-Haug-Michelis (1999) p-values

Table 6: System GMM Estimates of Per Capita GDP (PCGDP) Equation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.309857	9.295758	0.571213*	0.5728
LPCGDP(-1)	0.509310	0.136168	3.740311*	0.0009
CAP	0.012705	0.007180	0.470663**	0.8214
EDEXP	0.057927	0.035373	0.789502*	0.4370
EYS	0.182784	2.721168	1.459833*	0.1563
HEXP	0.080683	0.146104	-0.331780**	0.8277
LLEX	0.154280	2.881414	-2.031739*	0.0525
PGAP	-0.176936	2.154532	-0.882123*	0.1352
PHC	0.035248	0.689972	0.059745**	0.9528
SPGAP	-0.467142	1.761511	-0.265194*	0.7930
LAB	0.226207	0.519009	1.362593*	0.0259
R-squared	0.972640	Mean dependent var		6.410065
Adjusted R-squared	0.962117	S.D. dependent var		0.920175
S.E. of regression	0.179100	Sum squared resid		0.833995
Durbin-Watson stat	2.094070	J-statistic		4.707484
Instrument rank	12	Prob(J-statistic)		0.030032

Source: Eview Computation, 2018. * denotes significant at 5%. ** denotes insignificant at 5%

Table 7: System GMM Estimates of Poverty Head Count (PHC) as Dependent Variable

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.574766	1.326293	0.607168*	0.8374
LPHC(-1)	0.926440	0.061188	15.14079*	0.0000
LHEXP	-0.072564	0.046892	-1.547468*	0.1330
LDEBT	0.033461	0.046787	0.715190*	0.4804
LEYS	-0.080249	0.167603	0.578807*	0.5358
LINT	-0.012943	0.021850	-0.592361*	0.5584
LPOL	0.017692	0.119488	-0.148066*	0.8834
LREGU	0.036304	0.068120	0.532936*	0.5983
LLEXP	-0.103413	0.096719	1.208192*	0.8366
R-squared	0.965478	Mean dependent var		18.06975
Adjusted R-squared	0.955614	S.D. dependent var		0.321524
S.E. of regression	0.067738	Sum squared resid		0.128478
Durbin-Watson stat	2.182375	J-statistic		6.344637
Instrument rank	10	Prob(J-statistic)		0.011774

*Source: Eview Computation, 2018. * denotes significant at 5%. ** denotes insignificant at 5%*

Table 8: System GMM Estimates of Poverty Gap (PGAP) as Dependent Variable

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.031255	1.273525	0.809765*	0.4247
LPGAP(-1)	0.928139	0.063157	14.69573*	0.0000
LHEXP	-0.065085	0.057250	-1.136860*	0.2649
LLEXP	-0.131040	0.503619	0.639578*	0.5276
LDEBT	0.004127	0.055838	0.073915**	0.9416
LEYS	-0.092673	0.153432	0.604002*	0.5505
LINT	0.117374	0.614926	-1.163982*	0.2539
LPOL	0.107793	0.181571	0.593668*	0.5573
LREGU	0.011852	0.064212	0.184584**	0.8548
R-squared	0.919721	Mean dependent var		17.19487
Adjusted R-squared	0.900343	S.D. dependent var		0.283399
S.E. of regression	0.089464	Sum squared resid		0.232113
Durbin-Watson stat	2.347805	J-statistic		4.483669
Instrument rank	9	Prob(J-statistic)		0.034220

Source: *Eview Computation, 2018. * denotes significant at 5%. ** denotes insignificant at 5%*

Table 9: System GMM Estimates of Squared Poverty Gap (SPGAP) as Dependent Variable

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.189874	1.411909	0.842742*	0.4063
LSPG(-1)	0.914794	0.066969	13.66006*	0.0000
LHEXP	-0.079726	0.063817	-1.249289*	0.2215
LLEXP	-0.118402	0.671106	0.601100*	0.5526
LDEBT	0.009126	0.068819	0.132616**	0.8954
LEYS	-0.566645	0.072838	0.531836**	0.7424
LINT	0.021057	0.017096	-1.231726*	0.2279
LPOL	0.115547	0.215089	0.537205*	0.5952
LREGU	0.020254	0.080958	0.250175*	0.8042
R-squared	0.901129	Mean dependent var		16.61383
Adjusted R-squared	0.877264	S.D. dependent var		0.318365
S.E. of regression	0.111535	Sum squared resid		0.360761
Durbin-Watson stat	2.377803	J-statistic		4.135038
Instrument rank	9	Prob(J-statistic)		0.042004

Source: *Eview Computation, 2018. * denotes significant at 5%. ** denotes insignificant at 5%*

Table 10: System GMM Estimates of Per Capita GDP (PCGDP) Equation and Interaction variables

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.309864	9.295755	0.571214*	0.5728
LPCGDP(-1)	0.059310	0.136168	0.440312*	0.0009
LCAP	0.082705	0.107180	0.570663*	0.6714
LEDEXP	0.027927	0.035373	0.489502**	0.4370
LEYS	1.052784	0.721167	1.459834*	0.1563
LHEXP	0.090683	0.746104	-2.331781*	0.0277
LPHC	-0.245451	2.783805	1.884274*	0.0708
LLAB	0.126207	0.519008	0.962596*	0.0459
LINTRA1	0.120204	2.449553	-2.127002*	0.0431
LINTRA2	0.176938	2.154531	-0.782123*	0.5352
LINTRA3	0.134141	0.761510	-0.565193*	0.7930
LPGAP	-0.165451	1.783806	0.884273*	0.0708
LSPGAP	-0.115451	1.884273	0.670708*	0.4311
LLEXP	0.078402	0.671106	0.501100*	0.6526
R-squared	0.972640	Mean dependent var		6.410065
Adjusted R-squared	0.962117	S.D. dependent var		0.920175
S.E. of regression	0.179100	Sum squared resid		0.833995
Durbin-Watson stat	2.094070	J-statistic		4.707485
Instrument rank	12	Prob(J-statistic)		0.030032

Source: *Eview Computation, 2018. * denotes significant at 5%. ** denotes insignificant at 5%*

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CHAPTER

11

DETERMINANTS OF SMALL ENTERPRISES' SURVIVAL RATE IN THE SUBURBAN AREA OF LAGOS STATE: IMPLICATION FOR USING SMES AS STRATEGY FOR URBAN DEVELOPMENT IN LAGOS STATE

Saibu Muibi Olufemi & Abudu Azeezat

Abstract

In recent times, significant attention has been focused on small and medium scale enterprises in developing countries because of their potential for diversification and expansion of industrial production, as well as job creation. But unfortunately, despite the plausible significance of these firms, the performance of SMEs has been disheartening and the mortality rates of these enterprises remain very high. Considering this, this study investigated the factors responsible for SMEs disheartening performance and high mortality (failure) rate using Shomolu LGA-one of the highly SMEs concentrated clusters in Lagos State as the case study. Structured questionnaires were administered to collect data on 200 SMEs that have to be in existence for at least 5 years. Following the analysis of data and discussion of findings, the major findings are that: the survival rate of SMEs in Lagos is 42.2% and the average time to fail for SMEs in Lagos State is about 10 years. However, the manufacturing SMEs have the highest survival rate (53.8%) and longest time to fail (18 years) followed by services with a 40% survival rate and 10 years as a time to fail while trade has a 43% survival rate but the least time to survive. The finding shows that the major source of finance for SMEs in Lagos State is owners' savings while the high cost of production is the major problem of SMEs in Lagos State. The study also found that inadequate finance is the major cause of SMEs death and low sales are the major initial sign businesses show before they collapse. It was also established that the top priority in the intervention and assistance, the SMEs sub-sector, required from the government to strengthen their survival rate is increasing access to affordable credit facilities.

Keywords: Entrepreneurship, Survival Rate, Business Inclusion, SMEs, Nigeria.

Introduction

In recent times, significant attention has been focused on small and medium scale enterprises in developing countries because of their potential for diversification and expansion of industrial production, as well as job creation. This growing recognition has increased the commitment of both local and international organisations around the world to making it a renowned and functioning sub-sector of the economy. In the year 2004, the World Bank Group approved roughly \$2.4 billion in support of small and medium scale enterprises (World Bank, 2001, Ayyagari et al., 2007). Also, in the year 2010, the Federal Government of Nigeria (FGN) released #2 billion to the NERFUND account for direct lending to the SMEs in Nigeria. Data from the federal office of statistics in Nigeria reveals that about 97% of the entire enterprises in the country are SMEs and they employ an average of 50% of the working population as well as contributing to 50% of the country's industrial output (NBS, 2010).

Despite the participation and effort of the government in stimulating the SME sub-sector, the growth and development of these SMEs have been slow and, in some cases, even stunted. A survey conducted by Manufacturer Association of Nigeria (MAN) in 2004 revealed that only about 10% of industries run by its members are fully operational while about 70% of the small and medium scale enterprises in Nigeria are on the verge of folding-up, while the remaining 30 percent operate on low-level capacity and are vulnerable to folding up in the nearest future (Joshua, 2008). As of 2010, about 64.1% of SMEs in Nigeria did not have a patent right, 57.5% were uninsured, 54.4% used personal savings as a source of capital and they contributed 46.54 percent to the GDP in nominal terms as of December, 2010 (NBS, 2010).

But unfortunately, despite the plausible argument in support of small enterprises as drivers of economic recovery, the performance of such enterprises has been disheartening and their survival rates are not well documented in the literature. Considering this, this paper aims to ascertain the survival rate and time (in years) to failure of enterprises in Nigeria. Such

analysis is germane to promoting entrepreneurship and business incubation in Nigeria. The paper adopts both inferential and econometric analysis. A sample of 200 enterprises in operations at least for the past five years are sampled and the social-economic characteristics of the enterprises are analysed to determine the time to fail and factor influencing the rate of enterprise failure in selected local governments in Lagos. We estimated the survival functions for the survival of these enterprises using the Cox proportional hazards regression model and the Kaplan-Meier methodology to show how the duration of survival varies according to firm-specific variables. Unlike other previous studies, the use of survival analysis allows us to examine early symptoms of failure that firms show before they collapse.

The uniqueness of this study is that apart from estimating the survival rate of SMEs in Nigeria, it also estimates the survival rate of various sectors of the economy and the gender implication of entrepreneur incubation and survival to identify the viability and constraint to entrepreneurship development in various sectors of the economy. Therefore, the paper attempts not only to determine the survival rate but also the critical factors that may make an enterprise fail and which sector is more prone to failure than the others as well as the implication of that on gender mainstreaming in business incubation and development in Nigeria.

2.1 Small Business Survival and Determinants - A Theoretical Review

Some earlier studies have documented the development process of SMEs, for instance, Hoselitz (1959), Staley and Morse (1965), and Anderson (1982) argued that in the "early" stage of development, the manufacturing sector was predominantly artisans or craftsmen and as the process proceeded many of them grew into larger-sized and more modern establishments of industry; while smaller and traditional units of production die out. Following Hoselitz's work, Parker (1979) and Anderson (1982) had classified the development process of business into three phases.

The first phase is the early stage of industrialisation which is characteristically predominantly agrarian economies, household and artisanal activities (SMEs) in the manufacturing industry are predominant in terms of their total number of

production units and share in total manufacturing employment. This is a stage of industrialisation in which many microenterprises (MIEs, mainly in rural areas), coexist with a quite limited number of larger-scale (mainly foreign or state-owned firms located in urban areas or large cities). In this stage, MIEs are predominant in activities such as garment-making, smithy, footwear, handicrafts, masons, industries making simple building materials, and various crop-processing industries. They are closely related to agricultural production, as providers of rudimentary inputs to and of processing services for output from agriculture, and the non-food needs of the rural population. The second phase coincides with more developed regions with higher incomes per capita, SMEs emerge and increase at a comparatively rapid rate, and act to displace MIEs in several sub-sectors of manufacturing. Some factors might explain the expansion of these industries in this stage of development. Steel (1979), for instance, emphasises the importance of a growing cash market for the expansion of SMEs: Increased urbanisation and expanding cash markets give rise to a shift from traditional household activities to complete specialisation of the entrepreneur in small scale production and increased use of apprentice and hired labour.

The third stage is characterised by large factories (LEs) becoming predominant, displacing the SMEs in some activities. According to Anderson (1982), this phase is partly a product of phase two, since the recorded growth of output and employment in LEs can be divided into; (a) the growth of once small firms through the size structure, and (b) the expansion of already large domestic and foreign concerns. However, the expansion of LEs in this stage may also be caused, to a certain extent, by new large-scale entrants, which is not explicitly considered by Anderson (1982). In this final phase, the use of economies of scale for the plant, management, marketing, and distribution (depending on types of products and flexibility in production); superior technical and management efficiency; better productive coordination and access to supporting infrastructure services and external finance; and concessionary finance along with investment incentives, tariff structures, and government subsidies are all-powerful causes or incentives for firms to grow larger. In practice, it is often found that these factors are more favourable for large or modern industries than for small and traditional ones and so they may explain the eventual better performance of larger enterprises than small ones in

advanced stages of industrialisation. Both Hoselitz (1959) and Anderson (1982), among some others in this 'classical' thesis of SMEs development, predict that advantages of SMEs will diminish over time and LEs will eventually predominate. They believe that during economic development, a critical sign of economic prosperity and development, by the increase of per capita real income/gross domestic product (GDP), is the decline in the size of private small business in the economy, reflected also by the 'declining economic' share of SMEs (i.e. their shares in GDP, employment, sectoral output, and the number of enterprises).

While the above exposition explained the process and stages, it failed to identify the factors that contribute to the transformation of MIEs to SMEs and finally to LEs. The clear dissimilarities between the economic and sociopolitical environment in developed and developing countries might also play down the universality of the sequences and the conclusion of the Anderson (1982) proposition. However, there are some theoretical propositions applied in other areas but relevant to business survival and development which can be used as an argument to the historical linear stage development process. Among such theories is gambler's ruin popularised by Wilcox, (1971). The theory used the analogy of a ring of gamblers gathered around a gambling table, playing a game of chance, each gambler with a stock of resources (such as 'poker chips'). The players in this game just like entrepreneurs tend towards over-optimism about their chances of winning (Cassar, 2010), whereas in reality, they may have little or no control over outcomes. The gambler is assumed to derive positive utility from being "at the table" and so chooses to stay for as long as possible, i.e. the entrepreneur enjoys some benefits from still being in business and as such aims to continue to survive as long as they have access to poker chips (resources).

Another important theory in the development of the framework for the analysis of business survival is Laidler's scale economic theory. This theory postulates that small firms are inefficient because they do not operate at the minimum efficient scale where economies of scale are enjoyed (Laidler, 1972). The theory asserts that a firm without an increasing economic scale may remain uncompetitive and hence have a high likelihood of failing. Therefore, the survival of firms depends on the size of production and the potential of scale

economies. According to this theory, benefits derived from economies of scale are one of the determinants of SME survival.

There is also the resource-based theory which argues that resources, capabilities, and core competencies are essential for a firm's competitive advantage. Therefore, adequate resource support and policies to create capability are critical for SMEs' survival since they are small and need assistance. The resource-based theory provides a framework to explain how businesses can identify suitable measures to overcome survival obstacles, have better access to technology resources, manpower resources, financial resources, natural, and infrastructure, and access to the market. According to Barney (1991) and Grant (1991), the four types of tangible resources are financial, organisational, physical, and technological. The three types of intangible resources are human, innovation, and reputational resources. This theory is similar to that of the gambler's ruin theory in the sense that they both emphasised the availability of resources as the determinant of SME survival.

Some scholars (Abonyi, 2003; Tambunan, 2005; Enright and Robert, 2001; Dijk and Sverrisson, 2003; and Nadvi, 1995; Porter, 1998) have also suggested that industrial cluster policies can be a survival strategy for a firm. A cluster is a geographic concentration of interconnected companies and institutions in a particular field. They believe that SMEs can receive external economic advantages from clustering and networking as a potential growth path for SMEs. Many Central and East European countries have used a clustering approach for assisting the development of SMEs such as Poland, Hungary, Slovenia, the Czech Republic, Slovakia, Ukraine, Lithuania, Estonia, and Latvia, (Ionescu, 2003). Examples of cluster theory in practice in East Asia and Latin America include surgical instrument clusters in Sialkot, Pakistan; electronic clusters in Penang, Malaysia; knitwear in Tiruppur, India; software in Bangalore, India; leather shoes in the Sinos Valley, Brazil (Abonyi, 2003). Tambunan (2005) also suggests that experiences in many European countries show that the clustering approach can be a powerful means for overcoming resource constraints that SMEs in transitional economies lack.

Another factor in business survival is networking, Lechner and Dowling (2000) define networks as the relationship of the individual with other individuals, or

relations between organisations that can have various functions. Therefore, network relationships can be considered as an important intangible resource that can provide support for SMEs who do not have sufficient resources. It can do this by helping SMEs to develop links with suppliers, distributors, and customers, or utilisation of social contacts, including acquaintances, friends, family, and kin. The networking approach is applied in Moldavia, Ukraine, and Belarus (Smallbone and Welter, 2001); Thailand (Brimble, Oldfield and Monsakul 2002); Zhejiang, China (Krug and Hendrischke, 2003); Taiwan (Ngui, 2002) and Korea (Gregory, 2002). Also, Nadvi (1995) suggests that both local associations and government support bodies facilitated the development of clusters and networks of SMEs in Brazil, Mexico, India, and South Korea.

There are also pro-SMEs policy advocates who argue that SMEs enhance competition and entrepreneurship and hence they have external benefits on economy-wide efficiency, innovation, and aggregate productivity growth. From this perspective, any government support for SMEs will help countries exploit the social benefits from greater competition and entrepreneurship (World Bank 1994, 2002, 2004). Therefore, government development expenditures have positive effects on the growth of SMEs, and the effects are both indirect (i.e. public services and infrastructure) and direct (e.g. government-sponsored special credit schemes and training programmes for SMEs).

Brüderl and Schüssler (1990), Fichman and Levinthal (1991), and Mahmood (2000) proposed the hypothesis of "liability of adolescence", and argued that, at the adolescent age (i.e. as the firm increases in age), the enterprise is expected to have adapted to the environment, and establish a trust relationship with other enterprises and as such getting familiar with the running of things in the industry which makes the death risk to follow an inverted U-shape pattern, rather than linear decline with the increment of age. In an enterprise's early life cycle, the enterprise continues to consume the original capital but has not yet established a reputation in the market, so the enterprise's death risk increases over time and until the enterprise adapts to the environment when its death risk starts to reduce. To this theory, the ability of a firm to adapt quickly to the environment determines its survival rate. Also, Baum (1989), Hanna (1998), among others, raised the hypothesis of "liability of senescence" that the elder enterprises cannot better adapt to the changing and competitive environment because they

are more rigid than the younger. Therefore, when the enterprise reaches a certain age, enterprise death risk will once again increase.

Recently, several studies show that there is a negative impact on industry size on the hazard rates of business failure. In the larger markets, a new enterprise is less perceptible for the incumbents, so the start-up firms face the less aggressive competition of incumbents than in smaller markets (Strotmann, 2007). In the rapidly growing industries, because enterprises are facing better demand that increases the product's margin and the incumbents' market share does not lose instantly after the entry of new enterprises; the incumbents will not adopt an aggressive reaction to new entry enterprises (Bradburd and Caves, 1982). Therefore, the enterprises in fast-growing industries may find it easier to survive, as suggested by many theories and empirical research results (Mata and Portugal, 1994; Audretsch, 1995a, b; Tveterås and Eide, 2000).

2.2 Empirical Review

Some attempts have been made to subject the above factors to empirical tests. For instance, Akinruwa, Awolusi, Olawunmi, and Ibojo, (2013) on the determinants of SME performance in Ekiti State found out that 78.7% of the explanatory variables (funds, infrastructure, raw materials, entrepreneur competencies, patronage, the channel of distribution, political environment, education, government policies, and technology) used in the survey are significantly related to small and medium enterprise performance. It equally stressed further that a single determinant factor cannot enhance the expected performance of the business. This is consistent with the findings of Sandberg, Vinberg, and Pan, (2002) cited in Komppula (2004). This, therefore, implies that all determinant factors must work as a system and concerted effort must be geared by the government towards making the determinant factors readily available for SMEs to survive in the country. Oni and Daniya (2012) examined the role of government and other financial institutions in the development of SMEs in Nigeria. Employing the deductive approach, they concluded that the government still needs to do a lot in terms of policy formulation to complement the efforts of financial institutions. Thus, they recommended, among other things, the establishment of more microfinance institutions to serve the grass-root financial needs of the SMEs. The findings of Nwachukwu (2012) point to two main causative factors as to why Nigerian SMEs are performing below

standard. One is internal and relates to our attitudes, habits, and way of thinking and doing things and the other is our environment including our educational system, culture, government, lackluster approach to policy enunciation, and poor implementation among others.

Mudavanhu, Bindu, Chigusiwa, Muchabaiwa (2011) on the determinants of SME failure in Zimbabwe showed that some challenges affect firms in some industries more than they affect firms in other industries. Such challenges include raw material cost which according to the findings affects firms in manufacturing, processing and construction (secondary industries) more than it does to SMEs in transport and retail industry. This study also shows that competition from imports increases the probability of failure for firms that are in manufacturing and processing than those that are in construction, transport and retailing. The findings from this study shows that availability of credit is an important factor affecting survival of SMEs in entirely all clusters sampled. The findings are in line with the technological capabilities theory by Lall (2001) which postulates that availability of credit ensures that firms invest in new, state of the art technology that is efficient and cost saving which enables them to withstand competition from both domestic established firms and imports.

Onwukwe and Ifeanacho (2011) used primary data on selected SMEs to examine the impact of government intervention on the growth of the SMEs in Imo State, and found that policy formulation and implementation constitute a major constraint to growth of the SME sector and, thus, its relevance despite several specialised institutions in charge of micro credit and policy instruments to enhance development of the SMEs. Considering a study conducted by Lawal, (2011) which was basically a survey of Small and Medium Scale Enterprises in local government in Lagos State and the purpose was to assess the strategic role of SMEs in economic development. The result of the analysis conducted sequel to the study shows that international SMEs contributed more than domestic SMEs in all dimensions of strategic importance. In other words, SMEs with international presence are stronger and perform better than those without international presence therefore making the former to be more of strategic importance to development than the latter.

Islam, and Muhammad (2008) in their study of SMEs in Bangladesh found that products and services, the way of doing business, management know-how and, external environment are most significant factors in determining the business success of SMEs. Koush (2008) in his study of SME failure in Korea found out that foreign competition is more predatory to SMEs that are in manufacturing than domestic competition. This study split the competition variable into domestic competition and competition from imports in order to establish the relative strength of the different competition sources to the determination of SMEs failure in different industries. Akinbogun (2008) notes that while Nigerian physical environment and people's culture have been favourable towards the business enterprises, infrastructural facilities and government policies have not. Therefore, it examined the impact of infrastructure and government policies on survival of small-scale ceramic industries in South-West of Nigeria and found that infrastructural facilities and government policies have not encouraged viable small-scale ceramic industries in Nigeria. Obamuyi (2007) explained that poor credit worthiness, lack of collateral security, poor-project package and the constraint imposed on banks' capital by regulations were among the several factors responsible for banks' attitude of restricted loan portfolio to the SMEs.

3. Methods and Materials

The paper adopted quantitative research design by collecting data from a wide range of SMEs socioeconomic characteristics using structured questionnaires. This method is chosen over other interview methods because it enables the collection of information that may not be freely available or disclosed openly in line with ethical considerations on the respondents under study. Also allowing gathering of a large sample of response than the use of interviews that can be largely subjective and manipulated. Thus, it seeks the uttermost objectivity and non-interference of the research outcome under consideration. This research is designed to determine factors responsible for SMEs survival and death in Nigeria using SMEs in Lagos State as a case study. It was economically costly to collect necessary needed information from the population SMEs and as such it is expedient to draw a sample. The paper adopted clustering and snowballing sampling.

The sample size was determined empirically based on the total number of SMEs in the country. According to NBS (2010) there are 17,284,671 and Lagos State has the highest number in the whole of Nigeria which stood at 4,535 enterprises. Using the total number of SMEs in Lagos State as at 2010, and adopting the standard formula $(n = N / (1 + N e^2))$, the sample size was calculated as 195 but to make up for possible losses, 200 questionnaires were administered¹ for the study.

3.2 Sources and Measurement of Data

In conducting the research, data was gathered using the primary sources which are actually collected directly from the field of survey with the use of questionnaires. Questionnaires enabled the respondent to be well composed and have time to comprehend the items when providing answers to the questions. The questionnaire was structured to elicit information, so as to have clearer understanding of the determinants of SME survival in Nigeria. Structured questionnaires was administered to various SMEs in Akoka, Yaba, Surulere, Ikorodu and Mainland areas of Lagos State. The general procedures for collecting survey designs was utilised during the questionnaire administration stage of this study. Hence, self-administration of questionnaires was revered and upheld. A closed-ended questionnaire was used for its advantages such as: it is easy to ask and quick to answer, they require no writing by the respondent, and their analysis is straight forward (Naoum, 1998). Scaled-response questions were also used. A five-point response scale was employed to measure the severity of the factors that determine SMEs survival (failure) in the Nigerian economy.

The factors that determine SMEs survival were defined through a detailed literature review. These factors were translated into questions of simple, easy, unambiguous form and void of technical terms to minimise potential errors from respondents. Questions of similar topics were adopted from previous studies and grouped together to build the main areas of the draft questionnaire.

¹ where: n = required sample size N = population size (4535) e = sampling error (0.08)
Using a 93% confidence interval, which gives an error margin of 0.08. $n = 4535 / (1 + 4535[0.07]^2)$ $n = 195.2932$ $n = 195$. From the calculation given above, sample size arrived at from a population of 4535 SMEs produced (n) as 195

There are four main sections in the survey questionnaire. The first part is an introduction to explain the idea and the purpose of the survey. The second part, which is from question 1.1 to 1.6, on socio-economic variables or demographical variables of respondents including the number of workers of the individual SME, sex of the respondent, type of activity and main products and services provided. The respondent is requested to choose the most appropriate answer. The third section of the questionnaires contains questions on company performance and survival and the fourth section consist of questions on factors determining SMEs survival (failure). Ordinal scale or rating was principally used to rank the various factors outlined. Empirically, respondents were asked to rate the relative influence of these determinants. The rating involved the respondents deciding whether the outlined determinant/factor is “most important”, “more important”, “important”, “and less important” and “not important”. Ordinal scale statistically is a ranking or a rating data that normally uses integers in ascending or descending order (Al-Hallaq, 2003). The numbers assigned to the degree of influence, that is, 1, 2, 3, 4 and 5 respectively do not indicate that the interval between scales are equal, nor do they indicate absolute quantities. They are merely numerical labels (Naoum, 1998). Only the primary data collection process was used. The primary data consisted of the use of questionnaires.

In order to determine the time to fail, this study used survival analysis to determine the survival rate of firms and how long it takes an SME to collapse, that is when it will fail. The use of survival analysis was borne out of the fact that the ordinary least square regression method (OLS) falls short of the requirement to determine the survival rate of SMEs because determining survival rate is a time to event analysis and the time to event analysis is typically not normally distributed. OLS regression method cannot handle skewed distribution. Also, the OLS model cannot handle censoring, which is very common in survival data, without modification. Traditionally, survival analysis was developed to measure lifespans of individuals. The time starting from a defined point to the occurrence of a given event, for example, time to death is called the survival time and the analysis of group data is the survival analysis. It can also be called duration analysis, transition analysis, failure time analysis, and time to event analysis. There are three ways in which survival function can be estimated. They are: Hazard function method, Kaplan- Meier method, Cox

proportional hazards regression model method. For the purpose of this study, the Kaplan Meier method was used. The Kaplan-Meier estimator is the nonparametric maximum likelihood estimates of $S(t)$. It is a product of the form:

$$S(t) = \left(\frac{r_1 - d_1}{r_1}\right) \left(\frac{r_2 - d_2}{r_2}\right) \dots \dots \dots \left(\frac{r_i - d_i}{r_i}\right) \dots \dots \dots I$$

Where “ d_i ” is the number of death events at time “ t ” and “ r_i ” is the number of subjects alive just before the time “ t ”.

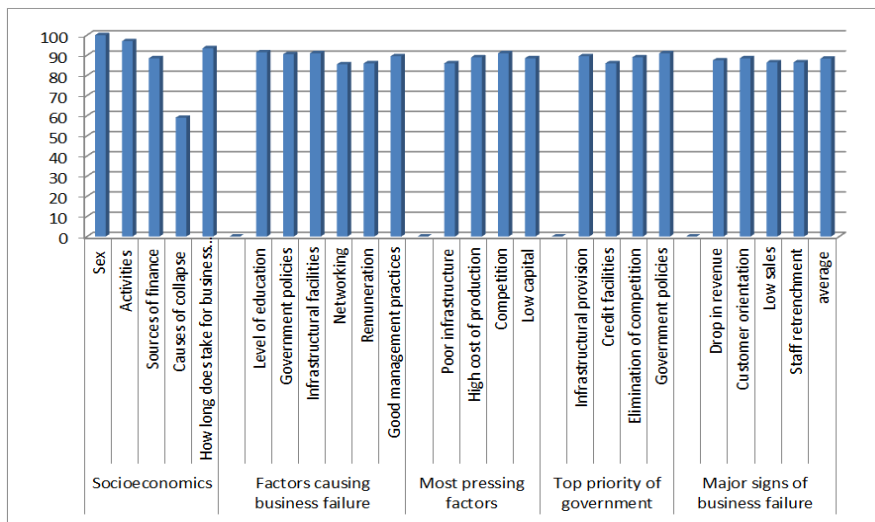
Estimating this model determine the time to fail of the private small business. Kaplan-Meier method is a useful method that may play a significant role in generating evidence-based information on survival time. In the method, there are censored observations and complete observations. Censored observations arise whenever the dependent variable of interest represents the time to a terminal event, and the duration of the study is limited in time (SMEs that did not survive up to time “ t ”). Complete observations are ones carried out until the end of the entities’ activity (in this case they are SMEs that survived up to time t in the study). In total, 79 complete and 108 censored observations were used in the study. The essence of survival analysis, however, comes down to marking out the survival curve not only for the whole sample examined, but also for the compared SMEs because of a certain variable of fractions of this sample. To show how the duration of survival varies according to firm-specific variables, we compared the Kaplan-Meier survival estimates, dividing the full sample into subsamples (manufacturing, commerce and trade and the service sectors of the economy).

For sensitivity and robustness, the Log-rank test, Breslow test and the Tarone-Ware (Cox and Oakes, 1984; Namboodiri and Suchindran, 1987) were conducted. The log rank, Breslow and Tarone-Ware test perform the chi square task. What they do basically is to compare the survival times for different groups in the study (manufacturing, service, trade and commerce and others) and determine whether a statistical difference occurs among the survival times of the different groups. All the tests carry out the same function but how they carry it out is what differs. The log rank test is used to test whether there is a

statistical difference between the survival times of different groups later in the time course. The Breslow test is used to ascertain whether there is a difference between survival time of different groups earlier in the time course. The Tarone-ware test is in-between the log rank test and the Breslow test where it tests whether there is a difference in the survival times of different groups in the middle portion of the time course. For the purpose of this study, these three tests will be used together to ascertain whether there are differences in the survival times of manufacturing, trade and commerce service and other sectors of the Nigerian economy and if there are differences, is it earlier in the time course, midway or later in the time course.

4.0 Empirical Result

Table 1 presents the response rate of the survey and socioeconomic characteristics of the respondents. On the average, though, all the questionnaires were returned, not all the items in the questionnaires were responded to. As shown in Figure 1 more than 88% of the questions were responded to, and no item received less than 80% response except causes of business collapse. This suggests that many of these respondents may not actually identify exactly the cause of the business collapse.



4.1 Descriptive analysis of the Socioeconomic Factors determining Business failure in Lagos State

Before the determination of the rate and time to fail, the critical factors that could mitigate the survival of business were posed to the SMEs owners and asked to rank. The results of these rankings and the socioeconomic status of these businesses surveyed are presented in the Tables 1 and 2.

Table 1: Socioeconomic Characteristics of the Private Surveyed

Socioeconomic	Characteristics	Frequency	Percentages (%)
Sectors	Manufacturing	14	7.2
	Services	104	53.6
	Trading and Commercial	76	39.2
Gender	Male	92	46
	Female	108	54
Sources of Finance	Personal Savings	151	85.3
	Bank Loans	10	5.6
	Cooperatives	16	9.0

Sources: Authors' computation from Survey

From the result of Table 1, the services sector has the highest percentage of SMEs with 53.6%, commerce and trade has 39.2% while manufacturing has the least with 7.2%. From the analysis, the manufacturing sector has the least proportion of small business in the Shomolu areas surveyed, given the metropolitan and residential nature of the area, most of the activities are basically commercial and service provision. This low proportional representation of the manufacturing sector seems to be a reflection of SMEs activities. This finding is in compliance with the findings in the 2012 study carried out by the Canadian Government in their business register which claims that 17.8% of small businesses are in the manufacturing sector and 41% in the service sector, there are 138,526 firms that employ from 1-4 employees in the manufacturing sector and 471,652 in the service sector. This confirms that the service sector has the highest number of SMEs as proclaimed by this study

The survey showed that the private small business sector is likely to be less gender biased as there are more female SME owners than male owners as seen

from the frequency table. The percentage ratio of male to female SME owners is 46:54%. The literature on gender-based firm survival, which reports that at times there is overt discrimination against female owned businesses (Carter *et al.*, 1997) and that women may be disadvantaged in the capital markets (Tiggers & Green, 1994), does not seem supported by this findings and reality in small business ownership in Nigeria and other recent previous studies. A report from the Institute of Women's Policy Research (IWPR) shows that women are steadily increasing their presence in the world of small-business ownership. About 29 percent of America's business owners are women, that is up from 26 percent in 1997. The number of women-owned firms has grown to 68 percent since 2007, compared with 47 percent for all businesses. More than 126 million women entrepreneurs were starting or running new businesses in 67 economies in 2012 (Global Report on Women and Entrepreneurship, GEM, 2012). Around one in five women come into self-employment from unemployment compared with around one in fifteen for men. ('Promoting Female Entrepreneurship' SBS/ DTI, 2005). This implies that women are taking over the business world especially in the small and medium scale sector not just in Nigeria but all over the world.

In a recent study on SMEs and poverty alleviation in Iseyin Local Government, Saibu and Hammed (2017) confirmed that most households, the SMEs headed by females have less severe poverty incidence and have greater propensity to break through the poverty vicious circle than male headed households. It was also confirmed that females predominate male ownership in small businesses in Oyo State. Possibly this change in business ownership gender composition may be an emerging trend in Nigeria.

While the gender composition showed a remarkable change from the traditional views, the small business finances in Lagos State still maintain the traditional approach and composition despite the concerted efforts by government through several policy interventions. Most of the small businesses surveyed sourced their finances from personal savings (85.3%) while only 5% chose bank loans with 9.0% relying on cooperative societies. From the analysis also, it is observed that owner's savings remains the major source of finance for SMEs in Nigeria. Bank loan takes the 2nd position with 5%. This shows that SMEs in the country still rely on their savings to finance the business as bank loans are

not readily available because of the high cost of borrowing and the strict measures involved in borrowing from banks. Therefore, if the SMEs depend on their personal savings and family income, the financial constraint may remain a key challenge to SMEs.

This finding that access to affordable credit facilities is a major area in which SMEs need assistance in order to survive goes in line with the findings of the study carried out by Mudavanhu, Bindu, Chigusiwa, Muchabaiwa in 2011 on the Determinants of SME failure in Zimbabwe which shows that availability of credit is an important factor affecting survival of SMEs in entirely all clusters sampled. This is probably because all firms require loans to finance working capital or make new investment that would ensure continuity and growth. These findings are also in line with the Technological Capabilities Theory by Lall (2001) which postulates that availability of credit ensures that firms invest in new, state of the art technology that is efficient and cost saving which enables them to withstand competition from both domestic established firms and imports.

Findings on the major cause of SME failure as compared with previous findings: Financial constraint remains a major challenge facing SMEs in Kenya (Wanjohi and Mugure, 2008). Oni and Daniya (2012) examined the role of government and other financial institutions in the development of SMEs in Nigeria. Employing a deductive approach, they concluded that the government still needs to do a lot in terms of policy formulation in order to complement the efforts of financial institutions. Thus, they recommended, among other things, establishment of more micro finance institutions to serve the grass root financial needs of the SMEs.

The findings indicate that inadequate finance is a challenge facing SMEs and can cause their failure and as such goes in line with the findings of this study that inadequate finance is a major cause of SME failure. According to a survey on Financing of Small and Medium Enterprises done by Statistics Canada, in 2007, the main source of financing during business start-up was personal savings. Also, according to the 2010 National MSME collaborative survey done in Nigeria, 54.4% of SMEs use personal savings as a source of capital. These

finding are in line with the findings of this study which established that owners saving is a major source of finance for SMEs.

Apart from the financial constraint, an attempt was made to elicit information from the respondents about the other likely challenges facing small businesses. The respondents were asked to identify the most important critical factors militating against their business survival and growth. The four factors were (poor infrastructure, high cost of production, competition, and low working capital) considered most critical by all the respondents, however, low working capital ranked 1st and high cost of production 2nd with poor infrastructure and foreign competition 3th and 4th respectively. The high rating of low capital and high cost of production further strengthen the critical role of finance as a major constraint to SMEs survival and development in Nigeria (see Table 2).

To understand the causes of small business' failure, the respondents were asked to rate the likely causes of the collapse of businesses. 23.5% chose inadequate finance as a cause of SMEs death, 15% chose low revenue generated, 6.5% chose competition and 14% chose others. With inadequate finance having the highest percentage of 23.5%, this study confirms that inadequate finance is a major cause of SME death in Nigeria.

In terms of signs of business failure, the respondents were presented with a total of four signs businesses show before they collapse in which they were required to rate the signs according to the magnitude of their effect. The signs are drop in revenue, low customer orientation, low sales and staff retrenchment. Low sales with 49.5% was considered as the most common sign of business failure. Second to low sales is low customer orientation (34.5%) while drop in revenue (32%) and lastly retrenchment (13%) were the major initial signs businesses show before they collapse.

Table 2: Challenges to SMEs Survival and Development in Lagos State

Major Problems Faced by SMEs in Lagos State						
Poor Infrastructure	29.5%	Foreign Competition	27%	Low Working Capital	33%	
Cost of Production	36%					
Causes of SMEs Mortality and Failure						
Inadequate Access to Finance	23.5%	Low Sales and Revenue	15%	Foreign Competition	6.5%	
Priority Area of government Intervention Requirement						
Infrastructural Provision	55%	Reduction of Tax and Financial Assistance	46.5%	Elimination of Foreign Competition	20%	
Affordable Credit	56.5%					
Early Signs of SME Business failure						
Drop in Revenue	32%	Low Customer Orientation & Loyalty	34.5%	Low Sale and Patronage	49.5%	
Staff Retrenchment	13%					

In terms of what the government can do to redress this trend and enhance small business development and survival. Infrastructural provision, affordable credit facilities, elimination of competition from large scale companies, and favourable government policies were the most cited policy intervention government can provide but 55% of the respondents chose infrastructural provision as the most important area of assistance, 56.5% chose affordable credit facilities while 20% picked elimination of foreign competition, 46.5% picked good government policies as an area of assistance to SMEs. From these responses, access to affordable credit facilities with the highest percentage of 56.5% is the top/major priority identified as area of intervention and assistance to the SMEs subsector.

4.3 Determination of Small Business Survival Rate in Lagos State

In order to calculate the survival rate, the starting point is to determine the minimum year we expected a business to live before showing signs of failure. This study uses the number of years in which SMEs under study have been surviving. From the number of years of survival indicated by the respondents, the mean number of years of survival is then calculated as shown in Table 2 above. From Table 2, mean = 6.3990 which approximately = 6 years. That “certain period” for this study will be 6 years i.e. Therefore, 6 years is chosen as the benchmark year for business survival.

Table 3: Small Business Survival Rate and Time to Fail in Lagos State

Sectors	Number of Businesses that survived beyond 6 years	% of Failure (Survival)	Median	Mean
Manufacturing	13	46.2% (53.8%)	18(0.00-43.6)	15.4(9.4-21.2)
Services	100	60% (40%)	10(9.2-11.4)	13.4(10.7-16.1)
Trading	74	56.8%(43.2%)	8(6.4-9.6)	9.7(8.3-11.0)
Overall	187	57.8%(42.2%)	10(9.2-10.8)	12.1(10.5-13.7)
The figures in brackets are the lower and upper bounds of the time to fail				
Overall Comparison				
Log rank		7.774(0.0021)		
Breslow Test		5.194(0.074)		
Tarone Ware		6.651(0.036)		

Source: Field work (2015)

From Table 3, it is observed that the failure rate of the manufacturing sector is 46.2%, therefore the survival rate is $1-46.2\% = 53.8\%$. The failure rate of the service sector is 60%, therefore the survival rate is $1-60\% = 40\%$. The failure rate in the commerce and trade sector is 56.8%, therefore the survival rate is 43.2%. From the table above, we can deduce that the manufacturing sector has the highest survival rate of 53.8% while the service sector has the lowest survival rate of 40% but unfortunately, the manufacturing sector that has the highest survival rate has the least number of SMEs while the service sector with the lowest survival rate has the highest number of SMEs.

Over all, out of a total of 187 SMEs in the Sample, only 79 survived up to the 6th year (average survival year) while 108 did not survive up to the 6th year (average survival year). 57.8% of SMEs are yet to survive up to the average survival year of 6 years and only 42.2% have survived up to the average survival year of 6 years. Therefore, the survival rate of SMEs in Lagos State Nigeria as revealed by the sample used in this study is 42.2% as at the period this study was carried out. The finding of this study goes in line with that of previous studies on survival of small businesses. This study found out that the survival rate of SMEs in Nigeria is 42.2%. This rate is below average and goes in line with that of (Scott 2009) using the U.S. Census data who found out that only 48.8% of the new establishments started between 1977 and 2000 were alive at age five and about 44.5% were alive at age six which is also below average. This shows that the survival rate of SMEs is low in both countries.

According to a research from RSA, the UK's largest commercial insurer, the study, *Growing Pains*, which examines the current shape of the economy and barriers to growth for SMEs, reveals a downward trend in one to 5-year business survival rates since 2004. It found out that the majority (55%) of small and medium sized enterprises (SME) do not survive over five years. Janis Pettit (2004) found out that more than half of small businesses fail within the first four years. Michael Ames and Gustav Berle stated that over 50% of small businesses in the USA fail in the first five years. Oshagbemi (1983) stated that less than five out of every twenty businesses established in Nigeria survive in their first year of operation, that is, less than 25% of businesses established in Nigeria survive in their first year of operation. Friedman (1988) in his study of 214 micro enterprises in the Northern Region of Nigeria within an 8-year period reported that only 4 had graduated into small and medium firms. Onyeiwu (1992) in a study conducted over thirty years on SMEs in the Eastern Region of Nigeria stated that half of SMEs in Nigeria do not survive beyond half a century. All these findings reveal that the survival rate of SMEs is low as established by this study.

Given the rate of failure and survival, the time to fail was calculated based on the Kaplan method discussed earlier. The mean and median failure time for each of the sectors were presented in Table 3. The assumption here is that if the data is normal, we are to use the mean survival time and if the data is skewed, we are to use the median survival time and since survival time is a non-parametric data which is usually skewed because of the presence of censored variables in it, the median survival time was used for this study. It is observed that for the manufacturing sector, the median survival time is approximately 18 years, for the commerce and trade sector, the median survival time is approximately 8 years and for the service sector, the median survival time is approximately 10 years and the overall average survival time is 10 years. This implies SMEs in Lagos have the capacity only to survive for an average of ten years.

Earlier in the study, we discovered that the service sector of the Nigerian economy is the most SMEs dominated sector with 41.5% of the total SMEs while the commerce and trade follows closely with 38% and the manufacturing sector being the least SMEs dominated sector with 7%. From the survival

analysis of each of the sectors, the manufacturing sector though has the least number of SMEs; it has the highest survival time of 18 years in Nigeria. The log rank, Breslow and Tarone-Ware tests were performed to compare the survival times for different groups in the study (manufacturing, service, trade and commerce) and determine whether a statistical difference occurs among the survival times of the different groups at different points in time. All the three tests confirmed that there were significant difference and the survival rate and time to fail were different from one sector to the other.

5.0 Conclusion and Policy Implication

The implication of the findings is that policy makers focus on making credit facilities easily accessible and at a low cost to SMEs in Nigeria. The findings of this study showed that access to affordable credit facilities is a major area in which assistance is needed in the SME subsector. The findings also imply that most SMEs still rely on their personal savings to run the business because of the bottlenecks involved with accessing credit facilities despite the various government assistance schemes in supporting SMEs in Nigeria, therefore the problem of SMEs may not be availability but accessibility, hence, there is a greater need for policy makers to focus on human capital requirements of SMEs beneficiaries of government assistance schemes in order to increase the access and success rate of SMEs. The findings further implied that that infrastructural facilities' high cost of production is killing small businesses in Nigeria. Finally, it is established that all the SMEs and sectors do not respond in similar ways to economic stimuli and specifically in this study it found that the manufacturing sector deserved more attention and has greater potential for economic stimulation, empowerment and long-term prospect in growth and contribution to overall economic survival than the other sectors. The finding of this study also reveals that manufacturing sectors should be given more attention and priority in financial assistance and also massive investment in the manufacturing sector should be encouraged.

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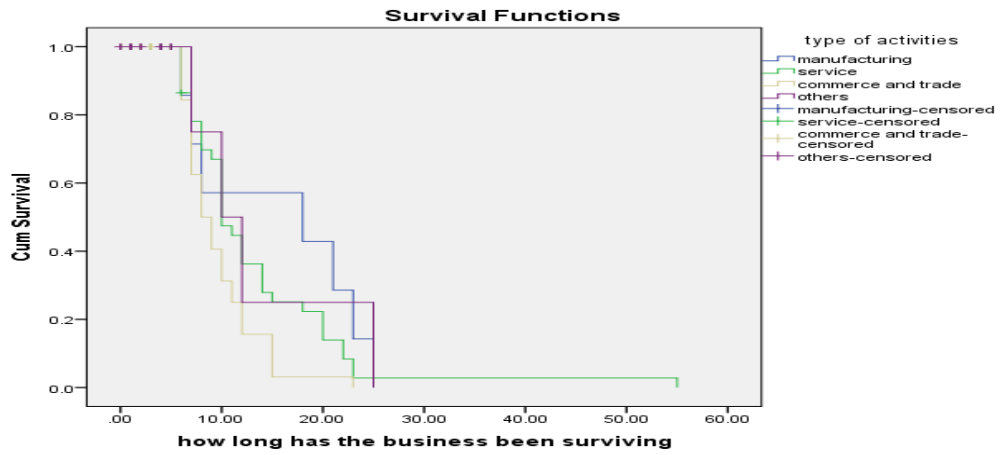


Figure 1: Survival Functions of Small Enterprises

CHAPTER

12

INFORMAL SECTOR DEVELOPMENT AS ENGINE OF EMPLOYMENT GENERATION IN LAGOS STATE

Babatunde Wasiu Adeoye

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Abstract

This study seeks to examine how a major macroeconomic variable, unemployment could be reduced through the informal sector which is targeted at empowering people towards being self-productive and independent and calls for continued support of the sector by the government. This research used both quantitative and qualitative research designs to examine how the informal sector development leads to the generation of employment in Lagos State, Nigeria. Survey results revealed that the informal sector reduces the pressure on the formal sector for employment generation, by absorbing this population with low level of education and through their productivity, enhances the development of the state. Considering the productive capacity and relative importance of this sector to the state, the study suggested that it is worthy of consideration for this sector to gain more recognition by formalising the informal sector. This will attract more business owners into the sector and increase investment of locally made commodities

Key Words: Formal and Informal Sector, Employment Generation

1.0 Introduction

Nigeria officially emerged from the amalgamation of southern and northern protectorates, comprising diverse groups with various economic activities such as agriculture, fishing, trading, crafts and medicine. The Nigerian traditional economy has been modified from hitherto reliance on agriculture and import substitution industrialization to over dependence on crude oil since the 1970's. Since then, the real economic activities have increased in non-agricultural sectors thereby weakening the Nigeria's traditional economy. This provided a basis for relegating the informal sector in Nigeria, especially in the light of imposing a modern capitalist structure, which has promoted unemployment with increasing dependence on wage earning to meet human needs (Akinwale, 2012).

The weakness of the Nigerian economy has adversely affected employment generation in the formal and informal sectors. Nigeria has not recovered from the collapse of its economic boom which was recorded in the 1970's when the massive injection of money into the construction of urban utilities and infrastructure attracted a flow of migrants to Lagos and other major cities in Nigeria. The period followed by economic crisis led to the introduction of economic policies such as the Structural Adjustment Programme (SAP) in 1986, the National Directorate on Employment (NDE) in 1986 and the National Economic Empowerment and Development Strategy (NEEDS) in 2004. Although the NDE and the NEEDS were designed to promote socio-economic development, their operations have not matched the rising demands for employment opportunities in Nigeria (Akintoye, 2008).

Employment generation is possible in Nigeria through the formal and informal sectors. The formal sector is subdivided into the public sector and the organized private sector (OPS), while the informal sector comprises different private organisations such as micro enterprises, small-scale enterprises (SSEs), and small and medium-scale enterprises (SMEs). Studies have showed that the largest proportion of employment generation in Nigeria occurs in the informal sector (Akintoye, 2008). The informal sector in Nigeria refers to economic activities in all sectors of the economy that are operated outside the domain of government regulation. This sector may be invisible, irregular, non-structured, and unobserved. Informal activities in Nigeria

encompass a wide range of small-scale, largely self-employment activities. Most of them were traditional occupations and methods of production. Others include financial and economic endeavours of subsistence nature such as: retail trade, transport, restaurant, repair services, financial intermediation and household or other personal services (National Bureau of Statistics, 2005).

Participation in the informal sector is attributed to several factors including low level of education, declining employment opportunities in the formal sector, and lack of relevant skills. Activities in the informal sector in Nigeria are difficult to measure; they are highly dynamic and contribute substantially to the general growth of the economy and personal or household income (Attah et al, 2013). Although the informal sector in itself may not have achieved much as we have presently in Nigeria, due to inaccessibility to credit, lack of proper documentation and official scrutiny, low level of protection and government assistance; the sector provides alternative avenues for employment. It has been reported that the majority of the global population ekes out their livings from the informal sector (ILO, 2010; Meagher, 2007).

Unemployment is one of the developmental problems that face every developing economy in the 21st century. Nigeria's current unemployment rate is forecasted at an average of 24.30% this year (NBS, 2005). With over one hundred universities in Nigeria today and an average of one hundred and sixty thousand graduates each year, the country is now bedeviled with severe graduate unemployment, since there seems to be a mismatch between graduate training and the world of work. These jobless graduates have become very desperate and willing to do anything including armed robbery and illegal trading in order to survive.

Repeatedly, widespread unemployment, and abject poverty have attracted concerns in Nigeria (NISER, 2003). This situation has become worrisome since the advent of accelerated globalization and the adoption of neoliberal reforms, especially the SAP, followed by privatization and deregulation of the State Owned Enterprises (SOEs) in Nigeria (Akinwale, 2012). Unemployment remains high in Nigeria due to disintegration between the formal and informal sectors, among other factors. While the unemployed largely focus on the

formal sector in search of jobs, there is inadequate interest in the informal sector. Yet, this sector provides livelihoods for the majority of the population (Akintoye, 2008).

The present state of the Nigerian economy, with the below the standard poverty line, mismanaged formal sector, general unemployment and underdevelopment makes us approach the informal sector as a potential catalyst for employment generation and economic development consequentially. The basic issue addressed in this research is the high incidence of unemployment in Nigeria, specifically, in Lagos State; and the potential of the informal sector as a critical resource for employment generation. Thus, in the light of this, this research seeks to examine how a major macroeconomic variable, unemployment could be reduced through the informal sector which is targeted at empowering people towards being self-productive and independent and calls for continued support of the sector by the government.

Therefore, the broad objective of this study is to investigate how the development of the informal sector serves as a strategy for employment generation in Lagos State. This research paper is structured into five major sections. After the introductory section that has just been concluded, section II presents the conceptual issues and literature review. Section III captures the methodology while Section IV contains the presentation of results and discussions. The conclusion and policy suggestions are contained in section V.

2.0. Conceptual Issues and Literature Review

The term “informal sector” was first coined by a British anthropologist, Keith Hart, in his 1971 study of low-income activities among unskilled migrants from Northern Ghana to the capital city, Accra, who could not find wage employment (Briggs, 1973). This concept was rooted in the dualistic economic structure as propounded by Arthur Lewis (1959) and others.

An earlier official description of informal sector is economic activities which are carried out outside the institutionalized economic structures as recorded in paragraph 27 of the ILO Employment Policy Recommendation 169 of 1984. It was modified and christened “the informal economy” during the ILO

Resolution in 2002 when it was described as all economic activities not covered or insufficiently covered by formal arrangements. The concept of the informal sector since its invention in the 1970s has attracted much discussion and disagreement. As such, there is no universally accepted definition or consensus on the concept of the informal sector.

The term unemployment denotes a condition of joblessness or lack of employment. In other words, anyone who is fit and available to work but fails to get one may be considered as being unemployed for the concerned period. According to Briggs (1973) unemployment is the difference between the amount of labour employed at current wage levels and working conditions, and the amount of labour not hired at these levels. However, Gbosi (1997) defined unemployment as a situation in which people who are willing to work at the prevailing wage rate are unable to find jobs. The implication of the definition by Gbosi is that anyone who is not employed may not be counted as part of the unemployed labour force, in order to avoid overestimation of the official rate of unemployment.

The definition of unemployment by the International Labour Organisation (ILO) was said to be more encompassing, “the unemployed is a member of the economically active population, who are without work but available for and seeking for work, including people who have lost their jobs and those who have voluntarily left work. The application of this definition across countries has been faulted, especially for the purpose of comparison and policy formulation, as countries characteristics are not the same in their commitment to resolving unemployment problems. Also, the preponderance of housewives who possess the ability and willingness to work, the definition of the age bracket all stand as limitations to the definition by ILO (Attah et al, 2013).

Employment process involves engaging the labour force in productive activities in the economy. Full employment is the most desired employment condition in the economy. But, this is a ruse in developing countries like Nigeria, because it is a dream that is yet to be achieved.

Literature on the development of the informal sector notes that a key strategy for the promotion of the sector should be the strengthening of its linkages with

the formal sector. It further asserts that a supportive policy and institutional framework for the formal sector is likely to result in the growth in size of the formal sector, expansion of its market boundaries, and facilitate the transfer of modern technology and managerial expertise to the informal sector.

The most controversial issue in the debate on the linkages between the two sectors is how the informal economy is linked. However, these debates have tendency to blur the distinction between the formal economy, the formal regulatory environment and their inter-relationship with the informal enterprises. Most of the informal enterprises source raw materials from and/or supply finished goods to formal firms either directly or through intermediate (often informal) firms. Sourcing and supplying of goods or services can take place through a sub-sector network of commercial relationships or a value chain of sub-contracted relationships. Understanding the nature of the production system through which both sectors are linked is vital as the nature of the linkage varies according to the nature of the production system. Sanderson (2014) proposes that given that the informal economy is here to stay and that the informal and formal economies are intrinsically linked, what is needed is an appropriate policy response that promotes more equitable linkages between the informal and formal economies and that balances the relative costs and benefits of working formally and informally.

Participation in the informal sector has become increasingly necessary in Nigeria, given the prevailing socio-economic situations including inadequate access to education, unemployment, poverty and the persistently limited capacity of the formal sector. There is no gain saying that this aspect of study has been exhaustively researched on, still, the room for further study always exists as the previous study would have created the other loopholes that demand further study.

Since pioneer study on this topic by Briggs (1973), in Ghana which focused on the income and employment in the micro-sector called informal sector, the study has attracted the attention of the researchers. The unrelenting efforts of ILO starting from the year 1972 and the study of the poor in Calcutta, India (Dasgupta, 1973) has to be acknowledged which has created avenue to contribute and fill the knowledge gap in this area of study.

Recent scholarship on informality focused variously on the size and composition of the informal economy, what drove or caused informality, what the consequences of informality were in terms of welfare or productivity, and what linkages existed between informality and formality, growth, poverty and inequality. This resurgence of interest in the informal economy has generated significant rethinking of the concept and improvements in official measurement of the phenomenon.

For instance, Tshuma and Jari (2013) in their study pointed out and concluded that the small business (informal) sector has to nations shown that the poverty circle can be escaped and a faster rate of economic growth and development achieved especially if these small businesses are supported. As a result, enhancing the productivity of informal traders and making them competitive is crucial as it absorbs the job-seeking and able-bodied people who in turn produce thereby increasing national output and speeding up economic development.

Attah et al. (2013) in their empirical study of the role of the informal sector in employment generation found that the informal sector plays a pivotal role in the socioeconomic advancement of Nigeria. Yet enough mechanism has not been put in place to encourage it through funding, capacity building, infrastructural facilities since its impact on the well-being of the citizens vis-à-vis overall national economy deserves more than effort being put so far to sustain it. The neo-liberal policy implemented by government has not been able to restore economic prosperity and development; rather it has resulted in several unfortunate social welfare maladjustments, failing to build human capacity and capabilities for the people, particularly among the vulnerable groups which constitute the majority in the informal sector in Nigeria. On the issue of diversification, their study found out that government lack of recognition of the contribution of the informal sector as a survival zone for millions of Nigerians has been responsible for its non-incorporation into the mainstream of the economy. This is shown by the nature of hostile, institutional, political, social and regulatory environment within which the operators operate that stifles the growth of the sector.

Farinmade (2012) studied the challenges of improving informal sector activities conditions in Lagos Island, Nigeria. The survey was carried out using stratified random sampling to ensure a fair representation of the population on each selected streets. The study revealed that there is a relationship between employment in the informal sector and formal sector unemployment, and illiteracy. The study further recommended the formulation of policies and programmes that will enhance the effectiveness of both the informal sector and planning administration, provision of infrastructure such as markets and designated open spaces to enhance and promote the activities of the sector. Onyemachi (2011) indicated that the traditional or informal sector is continuously expanding in developing countries and has been serving as safety belt in the provision of employment and income to the teeming poor. This paper examined the impact of informal sector on employment generation in Nigeria during the period 1970 to 2010 making use of annual time series data. The empirical analysis rested on the augmented Solow growth analytical framework. The study findings showed that informal sector activities have significant impact on absorbing the large pool of labour force in Nigeria. The study contended that human capital formation is positively related to unemployment rate which reflects the dearth of government expenditure on education in the country. Therefore, there is an urgent need for the government to re-examine its policies on informal sector.

Nuhu and Abdullahi (2018), in their study opined that the successive governments in Nigeria from independence till date have repeatedly made effort at reducing poverty by establishing series of laudable programmes that could bring succour and smiles to the Nigeria poor masses, but never made any headway owing to formulation or implementation problems. The fallout of these programmes has made the informal sector to continue to blossom in the economy as a panacea in reducing poverty. This work assessed the impact of informal sector on poverty reduction in Chikun Local Government Area of Kaduna State, Nigeria. Questionnaires were administered to respondents in the study area to obtained primary data. The evidence from this study revealed that informal sector helps significantly in poverty reduction through employment generation and improved earnings of the operators. Government must commit herself to develop the informal sector through implementation of sound financing programmes, education and employment policies.

The foregoing sections reveal that despite the relevance of this research area, it has been observed that “so little is known about the informal workers’ individual perceptions, values, attitudes, and opinions,” especially in Lagos State. The age group distribution, level of urbanization or industrialisation, the level of literacy, also the gender disparity and the level of trade liberalization and various policy measures have been studied as contributing factors influencing participation in the informal sector. Nevertheless, this classification is somewhat limiting. No study was found relating participation in the informal sector to people’s perception which is the beauty of this study. No studies were found on the role of economic identity in influencing participation in the informal sector. Previous economic analyses of informal sector activities have not considered these possibilities.

This research therefore aimed at bridging the gap by carrying out a study in order to understand the factors influencing participation in the informal sector, using the theory of economic identity as a framework to understanding and enhancing formal-informal linkages and subsequently, development in view to generating employment in Lagos State. Furthermore, using the social capital theory, the role of social networks will be emphasized as a key factor for informal sector development.

3.0 Methodology

This research used both quantitative and qualitative research designs to examine how the informal sector development leads to the generation of employment in Lagos State, Nigeria. Purely, a descriptive survey research design was used. The study population cuts across people with different socio-demographic backgrounds – sex, age, education, occupational status, and so on, to provide a platform for balanced views.

The rationale for conducting the study in Lagos State was based on its heterogeneity and status as the commercial capital of Nigeria. Lagos is the most populous city in Nigeria. Lagos is known for its bursting business activities. It is Nigeria’s financial, commercial and industrial nerve centre with over 2000 manufacturing industries and over 200 financial institutions, the state alone harbour 60 percent of the Federal trade, industrial and foreign trade while also attracting 65 percent of commercial activities. It therefore follows

that Lagos State also provides the platform for the huge presence of informal sector activities.

The study population was the informal sector operators in Lagos State. The study was targeted at Furniture Making and Hair Dressing businesses. While the Furniture business involves the male folks, the female folks are more into Hair Dressing business. In conducting this study, four Local Government Council Areas in Lagos State was chosen (two each from rural and urban centres) using the simple random sampling technique from which respondents was selected.

The primary data was collected from 200 respondents through a structured questionnaire. 10 in-depth interviews were conducted for each of the four LGAs. In all, 40 in-depth interviews were conducted. The opinion of apprentices on their perceptions about self-employment was sought.

Data extracted from the questionnaire, in-depth interviews and FGDs are presented in tabular forms and charts using percentages to describe the demographic characteristics of the respondents. Both inferential and descriptive methods of analysis were employed in this study. The mean score was used to carry out the descriptive analysis using the likert-type rating scale.

4.0. Presentation of Results and Analysis

4.1 Demographic Information

The research work revealed the enormous contribution of the informal sector to employment generation in Lagos State. Responses were obtained from four (4) local governments which are: Ibeju Lekki, Alimosho, Mushin and Ifako/Ijaye local government areas representing the urban and rural sectors of Lagos State. Based on this categorisation, Alimosho and Mushin represented the rural areas of Lagos State while Ibeju Lekki and Ifako/Ijaye represented the urban areas of the state. The informal sector is dominated by those whose highest level of education obtained is the secondary school representing 61.7 per cent of total respondents; workers with ND/NCE representing 15.2 per cent, primary school leavers 12.6 per cent, university education 6.5 per cent

and those with no formal education 3.9 per cent; 60.6 per cent had vocational skills and 40.0 per cent had HND skills

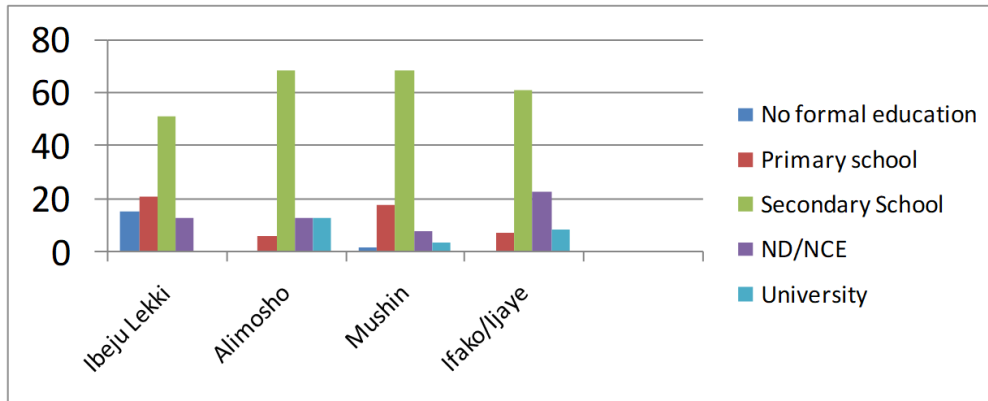


Fig 4.1: Percentage Distribution of Respondents by Level of Education Attained

Source: Field Survey, 2020

As presented in Table 4.1, both males and females were largely involved in these businesses with males representing 55.6 per cent and females 44.4 per cent of total population respectively. Two segments of the informal sector considered are the furniture and hair dressing services due to the fact that they are more visibly organized than other segments of the informal sector. A greater percentage of the males (55.6%) are engaged in the furniture making services while the females (44.4%) are more involved in hair dressing. (See Fig. 4.2).

Table 4.1: Percentage Distribution of Respondents by Gender

Gender	Ibeju Lekki	Alimosho	Mushin	Ifako/Ijaye	Total
Male	46.3	69.2	38.9	64.2	55.6
Female	53.7	30.8	61.1	35.8	44.4
Total	100.0	100.0	100.0	100.0	100.0
Total	100.0	100.0	100.0	100.0	100.0

Source: Field Survey, 2020

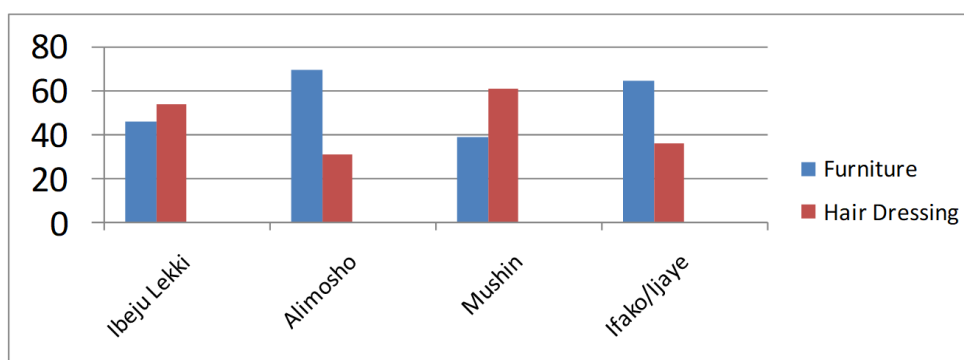


Fig 4.2: Percentage Distribution of Respondents by Profession

The married population involved in the informal sector exceeded the single population, with the married population accounting for 49.8 per cent and the single population 46.9 per cent (Table 4.2). This implies that the young population craves for more white collar jobs.

Table 4.2: Percentage Distribution of Respondents by Marital Status

Marital Status	Ibeju Lekki	Alimosho	Mushin	Ifako/Ijaye	Total
Single	45.3	51.0	22.2	61.7	46.9
Married	45.3	47.1	77.8	35.8	49.8
Divorced	7.5	0.0	0.0	2.5	2.5
Separated	1.9	0.0	0.0	0.0	0.4
Widowed	0.0	2.0	0.0	0.0	0.4
Total	100.0	100.0	100.0	100.0	100.0

Source: Field Survey, 2020

4.2. Informal Sector Activities

As indicated in Table 4.3, 73.3 per cent of total respondents were business owners, with the highest percentage being in Alimosho (82.7%), followed by Mushin (81.1%), Ifako Ijaye (70.7%) and Ibeju Lekki (61.1%). Of these business owners, 65.3 per cent were not engaged in any other activity as a source of income or employment (Table 4.4). It can be deduced from the above analysis that informal sector activities are the main stay of livelihood in Lagos State. This signals that a majority of the working population in Lagos are employed in the informal sector of the economy. While many of the respondents had been in these businesses for several years, others were relatively new in the informal sector. For example, 12.9 per cent had been

involved for more than 21 years, 27.1 per cent had engaged in it between 11-20 years, and 26.7 per cent have spent less than 3 years in business (Table 4.5).

Table 4.3: Percentage Distribution of Respondents by Business Ownership

Owner of Business	Ibeju Lekki	Alimosho	Mushin	Ifako/Ijaye	Total
Yes	61.1	82.7	81.1	70.4	73.3
No	38.9	17.3	18.9	29.6	26.7
Total	100.0	100.0	100.0	100.0	100.0

Source: Field Survey, 2020

Table 4.4: Percentage Distribution of Respondents by Additional Job/Business Existing

Additional Business/Job	Ibeju Lekki	Alimosho	Mushin	Ifako/Ijaye	Total
Yes	32.1	42.3	30.2	34.6	34.7
No	67.9	57.7	69.8	65.4	65.3
Total	100.0	100.0	100.0	100.0	100.0

Source: Field Survey, 2020

Table 4.5: Percentage Distribution of Respondents by Duration of Business Existence

Duration of Business Existence	Ibeju Lekki	Alimosho	Mushin	Ifako/Ijaye	Total
1-3 years	43.4	28.8	13.0	23.5	26.7
4-6 years	37.7	23.1	13.0	2.5	17.1
7-10 years	15.1	15.4	13.0	19.8	16.3
11-20 years	1.9	25.0	37.0	38.3	27.1
21 years & above	1.9	7.7	24.1	16.0	12.9
Total	100.0	100.0	100.0	100.0	100.0

Source: Field Survey, 2020

Reviewing the responses on the reason for business establishment, it became obvious that the success of the informal sector in employment generation was largely due to the self will of the people to improve their natural talent, interests and make a success of living irrespective of the low level of education attained. Some attributed it to low employment opportunities in the State. Thus, 67.3 per cent confessed to establishing their business to cultivate

their talent, 12.2 per cent claimed low level of education and others attributed it to high level of remuneration, lack of relevant skills, and a decline of employment opportunities in the formal sector (Table 4.6 and Figure 4.3). One of the interviewees stated:

“...when there are no jobs, a person is left with no choice than to look for some other alternative way of survival.”

While many of these businesses were created based on personal interests, some business owners admitted to inheriting the business from their parents, or to make life easy, a few however claimed it was by God’s direction.

Table 4.6: Percentage Distribution of Respondents by Reason for Establishing Business

Reason for Establishing Business	Ibeju Lekki	Alimosho	Mushin	Ifako/Ijaye	Total
Natural Talent	64.0	59.6	59.4	77.6	67.3
High Level of Remuneration	2.0	8.5	3.1	11.8	7.3
Lack of Relevant Skills	10.0	4.3	12.5	3.9	6.8
Low Level of Education	22.0	19.1	6.3	3.9	12.2
Decline of Employment Opportunities in Formal Sector	2.0	8.5	18.8	2.6	6.3
Total	100.0	100.0	100.0	100.0	100.0

Source: Field Survey, 2020

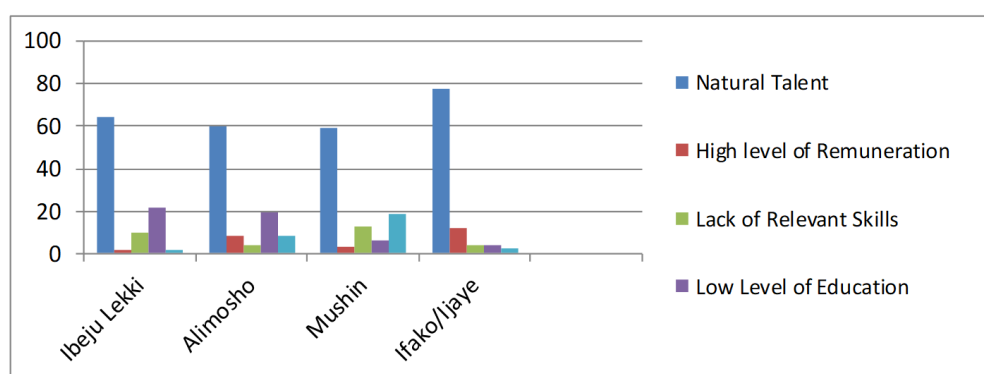


Fig 4.3: Percentage Distribution of Respondents by Reason for Establishing Business

Source: Field Survey, 2020

4.3 Employment Potentials in the Informal Sector

The core of this study is to illicit information on how the informal activities have promoted employment generation and reduction of the level of unemployment in Lagos State. The survey results reveal that business ownership has an external effect on others through the generation of employment opportunities as indicated by the number of employees, journeymen, apprentices and unpaid family workers employed in these businesses with Ifako/Ijaye being the highest employer by 33.6 per cent, Mushin and Ibeju Lekki by 22.4 per cent and Alimosho by 21.57 per cent (Figure 4.4). These statistics revealed the high potential for employment generation in the informal sector. Commenting on this, one of the interviewees put it this way:

“All building construction work requires a carpenter. You can’t build a house without a carpenter. The journeymen I have employed can’t be counted. Even the apprentices I once employed have all gained their freedom and established their own businesses.”

Another respondent added,

“...the nature of our business strives on contract. I have journeymen and I also act as a journeyman to some people because someone can’t work alone in this type of business. My brother and my son work here with me. So we create jobs for one another.”

The high rate of employment in the informal sector was remarkable considering the fact that a majority of these people are secondary school leavers who can hardly qualify to be employed in a white collar job. The informal sector however, absorbed this populace and reduced the pressure on the economy in terms of people searching for employable job. This ensures their productivity and positive contribution to the development of Lagos State.

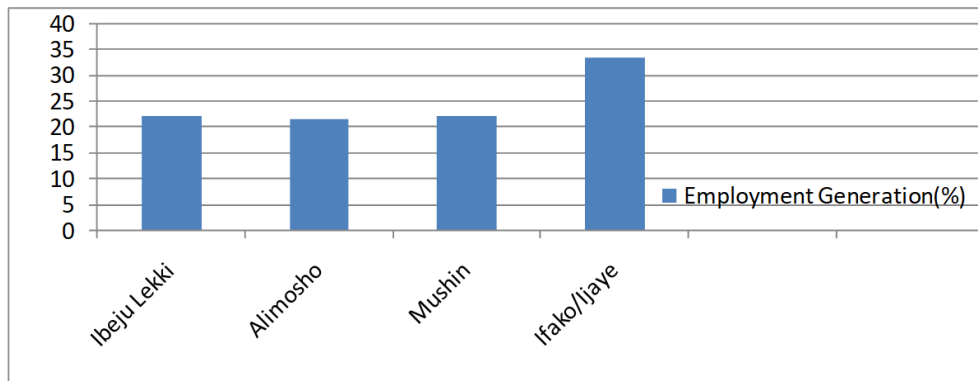


Fig 4.4: Employment generation of the informal sector

Source: Field Survey, 2020

Requesting the opinion of the respondents on strategies to reduce unemployment and promote employment in Lagos State through informal sector development, as depicted in Table 4.7, 68.6 per cent recommended adequate government involvement; 93.5 per cent suggested the government should establish an entrepreneurship programme to reduce the level of unemployment in the state and about 86 per cent favoured high literacy level, adequate funding and access to basic amenities. This indicates that the government has an active role to play in the growth of the informal sector.

The results obtained in this study is in line with the outcomes of the study by Attah et al. (2013) who found that the informal sector plays a pivotal role in the socioeconomic advancement of Nigeria. It is very clear that enough mechanism has not been put in place to encourage the informal sector through funding, capacity building, infrastructural facilities since its impact to the well-being of the citizens vis-à-vis overall national economy deserves more than effort being put so far to sustain it. Therefore, there is the need to further encourage this sector which appears to employ more than 70 percent of the labour force in the state. In addition, the results from this study reinforced the findings of Nuhu and Abdullahi (2018) who found that the informal sector help significantly in poverty reduction through employment generation and improved earnings of the operators.

Table 4.7: Percentage Distribution of Respondents with Reference to Factors that can Reduce Unemployment

Factors that can reduce unemployment	Ibeju Lekki			Alimosho			Mushin			Ifako/Ijaye			Total		
	Agree	Not Sure	Disagree	Agree	Not Sure	Disagree	Agree	Not Sure	Disagree	Agree	Not Sure	Disagree	Agree	Not Sure	Disagree
Using an Entrepreneurship Program	88.0	10.0	2.0	95.6	2.2	2.2	88.5	1.9	9.6	98.8	1.2	0.0	93.5	3.5	3.0
High Literacy Level	78.0	16.0	6.0	86.9	8.7	4.4	82.6	1.9	15.3	92.6	1.2	6.2	86.0	6.1	7.9
Adequate Funding	80.3	15.7	3.9	97.9	2.1	0.0	88.5	0.0	19.2	88.9	9.9	1.2	88.7	7.4	5.6
Adequate Government Involvement	84.0	16.0	0.0	93.6	2.1	4.3	52.9	17.6	29.4	54.4	16.0	29.7	68.6	13.5	17.9
Access to Basic Amenities	81.3	2.1	16.7	93.5	4.3	2.2	80.8	0.0	19.2	97.6	1.2	1.2	89.4	1.8	8.8

Source: Field Survey, 2020

The challenges facing the informal sector development as well as the facilities needed to improve this sector have also been empirically and dialogically investigated. It is imperative therefore for the government to take advantage of the self will of the people, set up essential training organisations for them to enhance their skills, and provide the necessary environment and services needed to establish and sustain their own business. The informal sector needs to be further exploited, refined and formalized for the generation of more employment opportunities so as to reduce the unemployment pressure on the formal sector. Informal sector development surely serves as an engine of employment generation in Lagos State.

5.0 Policy Suggestions and Recommendations

Survey results revealed that the informal sector reduces the pressure on the formal sector for employment generation, by absorbing this population with low level of education and through their productivity, enhance the development of the state.

As a means of reducing unemployment, respondents suggested an entrepreneurship programme, high literacy level, adequate funding, access to basic amenities and adequate government involvement. Unfortunately, 98 per cent of them claimed not to have received any government assistance in establishing their business; 84 per cent of respondents confessed to be in need of assistance in improving their skills in business and 16 per cent did not want any assistance. Those who declined any assistance did so largely because they were avoiding taxes. Others were satisfied with their business and business condition.

Survey results reveal that the informal sector operations have contributed greatly to employment generation by employing a large number of the population with low level education who in turn employ apprentices, journeymen, employees and unpaid family workers. It has also served as a major source of livelihood to many of the inhabitants of the state.

In the light of the findings in this study, the following policy suggestions are offered to guide policy formulation for the purpose of developing the informal sector in a bid to generate employment and improve the living standard of the people of Lagos State.

- **Promotion of Locally Made Goods.** Relevant Government agencies in collaboration with Non-governmental Organisations(NGOs) should assist in awareness campaigns and promotion of products made in the informal sector.
- **Banning of Imported Competitive Goods.** A growing number of the population, especially the rich prefer to purchase imported commodities at a higher price. Developing the informal sector will prove to be unproductive if there is no market for these locally made goods. It is worthy of consideration therefore for the government to ban or restrict the quantity of imported competitive commodities as this discourages local producers and destroys the market for locally made goods that are durable and less expensive.
- **Provision of Infrastructural Facilities.** The provision of constant electricity supply, pipe borne water, free health facilities, subsidized raw materials will have great impact on the development of the informal sector.
- **Formalising the Informal Sector.** Considering the productive capacity and relative importance of this sector to the state, it is worthy of consideration for this sector to gain more recognition by formalising informal sector. This will attract more business owners into the sector and increase investment in locally made commodities.

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PART III



**SOCIAL WELL-BEING
AND HEALTHINESS**

CHAPTER

13

INCOME INEQUALITY AND HEALTH OUTCOMES IN RELATION TO HEALTH OF RESIDENTS IN IFAKO IJAIYE LOCAL GOVERNMENT AREA

Nicholas A. Ishola & Mobolanle A. Ajayi

Abstract

The study examined the relationship between income inequality and health outcomes of residents in Ifako Ijaiye Local area of Lagos State. It is obvious that incidence of poverty and individual health outcomes are highly related; because low income can translate into poor health and by implication affect the productivity of the individual. Income inequality between groups in society does not just harm only the poor but the society at large because people living in more poor neighborhoods have shorter life expectancy, higher rates of hospitalisation, poor nutrition, overcrowding, and exposure to harmful environments. Using survey method, information was gathered through structured questionnaire; and Gini coefficient for measuring the income inequality of household in this area is 0.3378; which is an indication that a wider gap exist between the 10% top and 40% bottom in this area. However, the Logistic regression revealed that an increase in Gini-coefficient, reduce the log-odds in favour of good health status among respondents. This is an indication that income inequality in the area has affected the health status of the people negatively. In the same vein, good health depreciate as age of respondents increases and this could be attributed to increase in poverty that has made the respondents to place low value in maintaining their health status. The use of generic instruments for measuring the health status of respondents makes the findings to be more reliable than previous studies that have predominantly used likert scale in measuring health status in research.

Key Words: Inequality, Health, Gini Coefficient, Logit

1. Introduction

It is widely endorsed that individual income is a fundamental basis of individual health. (Subramanian and Kawachi, 2004) It is also generally believe that there is close connection between income and health status, invariably it is assumed that low income leads to poor health because income has an obvious impact on health. For example, it provides the means of obtaining the essential basics for health, such as accommodation, food, warmth and the ability to partake in the general public.

The link between income inequality and health outcomes is a very vital issue from both descriptive and policy recommendation angles across the world. World Health Organisation (WHO, 2003) posited that the status of health of people is always influenced by income and social status, literacy and level of education, joblessness, health care services, biology and heredities, availability of food, gender and beliefs among others. In addition, economic viability is the major cause of active poor living environment which is damaging to the health. Income inequality could harm health through two major ways. Firstly, a highly unequal society implies that significant segments of the people were impoverished, and poverty has bad implications for health. In addition, income inequality is thought to affect the health of not just the poor, but the better off in society as well. The spillover effects of inequality have in turn been traced to the psychosocial pressure resulting from unpleasant social comparisons, as well as the loss of social cohesion (Kawachi *et al.*, 2004).

It is not only the question that low income earner will have health issues but also rational from a layman perception that certain conditions like lack of material resources or inability to participate in society i.e. mental effect could also pose health risks. Roughly speaking, each step up on the social ladder upturns the prospects for better health – usually termed as the social gradient in health (Alexander, 2014). Individuals living in countries, or areas, with great differences in income had worse health and were subject to higher mortality rates than individuals living in areas with lower income inequality (Wilkinson, 1996). This notion is an evidence of what is happening in Nigeria most especially in rural areas because of the following; firstly, they have low income to demand for health service consumption. Secondly, to acquire basic needs of life and also, unhealthy behaviours they have cultivated overtime.

The main findings from micro-level research are that there is a very clear relationship between incidence of poverty and individual health outcomes. People with low income are regarded in most cases as being poor and living in poverty and their socio-economic characteristics obviously shows that. It is by now widely accepted that income inequality is the manifestation of poverty which is a risk factor for unhealthy life and increased morbidity. However, previous works done on this similar work have these limitations because of their inability to decompose the effect of individual income and income poverty from the contextual effects of income inequality. It is believed that each additional income also raise individual health by decreasing the amount.

In Ifako Ijaiye Local Government, the health service providers are relatively large with low patronage and by implication this makes some of them to close down their business. Another prominent reason was that people resulted to herbal treatment and self-medication which generate another side effect of unhealthy body. Low patronage of private health service providers and self-medication with herbal substance is clearly indications that people might not be able to afford the medical charges as a result of low income.

The income inequality between groups in society does not just harm only the poor but society at large because people living in poorer neighbourhoods have shorter life expectancy, higher rates of hospitalisation, poor nutrition, overcrowding, and exposure to harmful environments. (Richard Wilkinson, 2010). The influence of all these adverse socio-economic conditions in childhood, including poor diet can accrue throughout life till adulthood and produce lasting increase in the risk of diseases among other problems of income inequality. Therefore, it is very top priority of any responsible government to talk about income inequality and its impact on the health of individuals and look at how income could be evenly distributed and the health of an individual could be improved generally.

In this regard, the paper seeks to investigate the relationship between income inequality and health outcomes in relation to health problems in Ifako-Ijaiye Local Government Area because reasonable number of studies in the past have used “Likert Scale” to measure the health of an individual; which to a greater extent have some salient limitations. For instance, results are easily faked where individuals want to present a false impression of their health. Another

shortcoming of this instrument (likert scale) is that intervals between points on the scale do not present equal changes in health outcomes for all individuals (i.e., the differences between “strongly agree” and “agree” may be slight for one individual and great for another). Therefore, this study seeks to add to knowledge by examining the relationship between income inequality and health outcomes using generic instrument. These are designed to obtain more detailed information on the areas of quality of life affected by the diseases or physical functioning bodily pain or discomfort. The European Quality of Life instrument (EuroQol) was developed by researchers in five European countries to provide an instrument with a core set of generic health status items. Many research analyses have examined the close relationship between income inequality and the health status of an individual especially in advanced economy and few of this nature of study are available in underdeveloped or developing countries like Nigeria.

2. Literature Review

The literature is rich across countries and regions with many studies conducted on the impact of income inequality on health outcomes. Most of these studies posit that there is significant relationship between income inequality and health outcomes but other variables namely; income, education, the environment also play key roles in determining of an individual’s health.

The following researchers argued in favour of income inequality having an impact on the health outcome of an individual. (Bruce *et al.*, 1998) in his paper reported that inequalities in income at the state level exerts an independent effect on an individual’s risk of reporting fair or poor health. Robert *et al.*, (2000) says household income and income inequality operated mutually to influence the mental and physical health status. Poor health status of people in different social positions, increase with worsening employment conditions. Hui Zheng (2009) recommended in his paper that there is a major connection between income inequality and individual self-rated health. Weich *et al.*, (2002), however, found significant association between the Gini coefficient in British’s regions and mental disorders and self-reported health status. But they also found that the results were highly sensitive to the choice of inequality measure. Frederick *et al.*, (2006) pointed out in his paper titled, “Income Inequality and Health and Physical Health” that the measure of income

inequality is significantly associated with poor health among white people but not with the Blacks and Hispanics. Ping *et al.*, (2012) in a study carried out on middle and high school students' in seven major cities in China were observed to explore the association of self-perceived relative income inequality with general health status, depression, stress, and cigarette smoking. As hypothesised, the youth in the "Lower" self-perceived relative income inequality (SPRII-S or SPRII-P) group reported the worst general health and the highest levels of depression and stress; the youth in the "Higher" groups reported the best general health.

Some other writers also pointed out from their researches that the association between income inequality and health will be insignificant after controlling other variables. Kennedy *et al.*, (1998) and Mellor and Milyo (2002) found that state-level income inequality significantly affects self-reported health status even after controlling for individual incomes and other demographic variables. However, Mellor and Milyo (2002) reported that this association is no longer significant after controlling for regional fixed effects that take into account differences in, for example, diet, lifestyle, and access to medical care. In fact, the findings that state-level inequality is detrimental to self-rated health are not robust to alternative health outcomes. Alawode and Lawal (2014) concluded from their study that there is inequality in the distribution of income and the main factors affecting poor health status are inadequate health facilities, age of respondents, and distance of household to the health centre.

Lastly, the following studies found no significant relation between income inequality and health outcomes. These are: Shibuya *et al.*, (2002); they found no significant evidence that income inequality measured at the prefectures level have a detrimental effect on self-rated health status in Japan. In the same vein, Gerdtham and Johannesson (2004) found no significant effect of community-level income inequality on mortality in Sweden. Lorgelly and Lindley (2008) confirmed the absence of a clear association within Britain. Clearly from the above review of previous studies on this topic, there is still more room for studies on this topic because of mixed results from different researchers.

3. Methodology

The income inequality theory states that income inequality itself has an impact on the health of the masses within a country, holding their average incomes constant. According to the IHH, there is a direct link between health and income inequality. Mellor and Milyo (2002) identify two versions of this hypothesis; “strong” and “weak”. Argument of the strong version is that income inequality affects all individuals in a society equally, regardless of their income levels. On the other hand, the weak version states that income inequality has more impact on the health of persons with lowest level of income in the society. Therefore, the IHH suggests that the extent of the departure between the rich and poor people matters for population health and mortality. The key difference between the AIH and the IHH stems from the fact that the latter explicitly considers the effect of income distribution on health while the former manifest the concave relationship between health and income. However, primary data were collected from 300 residents in Karaole, Oyemekun, Aruna, Obawole and Fagba.

The study follows Hui (2004) used logistic regression to determine the degree of relationship between income inequality and health outcomes.

Model Specification

$$\text{Log (P/I-P)} = \beta_0 + \beta_1 \text{Gini_Coef} + \beta_2(\text{Sex}) + \beta_3(\text{Race}) + \beta_4(\text{Age}) + \beta_5(\text{Age}^2) + \beta_6(\text{Edu}) + \beta_7(\text{MarStat}) + \beta_8(\text{Work}) + \beta_9(\text{Income}) + \varepsilon_0$$

The model is re-specified as follows;

$$\begin{aligned} \text{Health Index Value} &= Y_{00} + Y_{01}(\text{IncIneq}) + \beta_1(\text{Sex}) + \beta_2(\text{Age}) + \beta_3(\text{Edu}) + \beta_4(\text{Work}) + \beta_5(\text{Inc}) + \varepsilon_0 \\ \text{Log (P/I-P)} &= \beta_0 + \beta_1 \text{Gini_Coef} + \beta_2(\text{Sex}) + \beta_2(\text{Age}) + \beta_3(\text{Edu}) + \beta_4(\text{Occup}) + \beta_6(\text{Inc}) + \varepsilon_0 \\ \text{Log (P/I-P)} &= \text{Odd ratio of Health Generic Scale (HGS)} \\ \text{HGS} &= \text{represent how the respondents rate their health} \\ & \quad (1 = \text{rate of health} \geq 50; 0 = \text{otherwise}) \end{aligned}$$

Where;

$$\begin{aligned} \text{Gini_Coeff} &= \text{Income inequality measure by Gini-Coefficient} \\ \text{Sex} &= \text{Sex of respondent} \\ \text{Age} &= \text{Age of the respondents} \end{aligned}$$

Edu = Level of Education
 Occup = Work of the respondents
 Inc = Log of average income per month
 E = Error term

4. Data Analysis

Evident from Table 1, the average income in Karaole Estate is the highest; while that of Obawole is the lowest; alternatively, average income of residents in aforementioned estate is seven times higher than people living in Obawole. The comparison of health scale also shows an average of 77.42 to residents in Karaole Estate against 63.71 in Obawole; which implies that the residents in the former have better health status than the latter. In depth look at other areas where the average income is greater than average income in Obawole, also reveals a higher health scale. Thus, area with higher average income is associated with good health status. Contrarily; the lowest Gini-coefficient 0.53 is found in Obawole; while 0.84 is found in Karaole; this implies a moderate and high inequality for the former and latter surveyed areas.

Descriptive Statistics^a

Community		N	Minimum	Maximum	Mean	Std. Deviation
Karaole Estate	Health Scale	60	50	100	77.42	14.187
	Gini Coefficient	61	1	1	.84	.141
	Income_Y	61	15000	200000	93112.95	45839.589
Aruna	Health Scale	58	11	100	86.21	16.497
	Gini Coefficient	58	1	1	.65	.145
	Income_Y	58	30000	80000	50931.03	16189.516
Oyemekun	Health Scale	55	50	100	78.36	12.400
	Gini Coefficient	57	1	1	.62	.149
	Income_Y	57	20000	100000	41350.88	35379.318
Fagba	Health Scale	72	40	100	69.07	13.659
	Gini Coefficient	72	1	1	.58	.113
	Income_Y	72	15000	120000	38958.33	15661.415
Obawole	Health Scale	52	15	98	63.71	16.765
	Gini Coefficient	52	1	1	.53	.000
	Income_Y	52	3000	35000	12538.46	7203.516

a. No statistics are computed for one or more split files because there are no valid cases.

Table 2 shows the Gini coefficient, that measures the inequality of income distribution in the area under study. The Gini index is the Gini coefficient expressed as a percentage, and is equal to the Gini coefficient multiplied by

100. (The Gini coefficient is equal to half of the relative mean difference). The Gini coefficient of zero (0) corresponds to perfect income equality (i.e. everyone has the same income) and one (1) corresponds to perfect income inequality (i.e. one person has all the income, while everyone else has zero income). The calculation of the Gini coefficient is the ratio of the areas on the Lorenz curve diagram. If the area between the line of perfect equality and Lorenz curve is A, and the area under the Lorenz curve is B, then the Gini coefficient is $A/(A+B)$. The Gini coefficient requires constructing a Lorenz curve that can be solved geometrically, through the calculation of several triangle and trapezoids. However, the alternative way of solving Gini-Coefficient is to organise the data into percentage of population that is richer than current group and later calculate the value of “score”. Where:

$$\text{Score} = \text{Fraction of Income} * (\text{Fraction of Population} + 2 * \% \text{ of Population Richer})$$

The intuition for the “Score” formula comes from the fact that we are computing the areas of a bunch of trapezoids. The area of a trapezoid is: $\text{Height} * (\text{Base at top} + \text{Base at bottom}) / 2$. The very last step of our calculation of the Gini is to divide by the area of the triangle which is $1/2$. So: $\text{Area of Trapezoid} / (1/2) = 2 * \text{Height} * (\text{Base at top} + \text{Base at bottom})$. In our calculation, the fraction of wealth is the height of the trapezoid, and the bases are “fraction of population that is richer than this group” and “fraction of population that is richer + this group’s fraction of population”. Thus,

$$\text{Gini Coefficient} = 1 - \text{Total Score} = 1 - 0.6344 = 0.3656$$

Since the Gini coefficient is 0.3656, this means that there is a greater income inequality in the area. In order to know the extent of the income inequality, the Lorenz curve was drawn in Figure 5.1 which falls below the line of income equality and this implied that there is income inequality in the area. It is obvious that the closer the Gini coefficient is to one, the better the income distribution and by implication the lower the inequality. Since, 0.3656 is far below one, the study inferred that the area of study is characterised by high inequality.

Table 2: Data used in Construction of Lorenz Curve and Calculation of Gini-Coefficient

GROUP (Quintiles)	F	Total Income Shared	Percentage of Population $\frac{Pop}{Total Pop} \times 100$	Percentage of Income $\frac{Income}{Total Inc} \times 100$	Proportion of Income to Population $\frac{\% of Income}{\% of Population}$	Cumulative of Population	Cumulative of Income	Percentage of Population that is Richer than current Group	Score $\{ \frac{Fraction of Income}{Fraction of Population} + 2 * \% of Population Richer \}$
						0	0		
≤ 40,000.00	153	3105000	0.51	0.21491	0.140464	0.51	0.21491	0.49	0.320216308
40,001-80,000	99	5765000	0.33	0.39902	0.403051	0.84	0.61393	0.16	0.259363132
80,001-120,000	36	3587890	0.12	0.248333	0.689814	0.96	0.862264	0.04	0.04966663
120,001-160,000	5	710000	0.016667	0.049142	0.982842	0.97666667	0.911406	0.023333	0.003112335
≥160,000.00	7	1280000	0.023333	0.088594	1.265632	1	1	0	0.002067199
	300	14447890	1	1					0.634425604

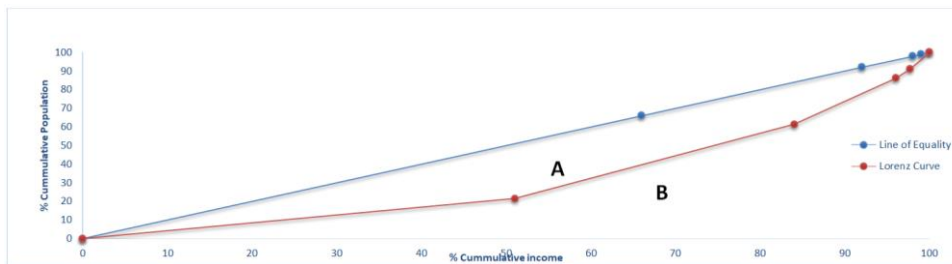


Figure 1: Lorenz Curve in Ifako-Ijaiye LGA Lagos State

Source: Author computation from field Survey, 2017

From the regression analysis in Table 3, it is obvious that an increase in Gini-coefficient by 1%, reduce the log-odds in favour of good health status among respondents by 2.55 units on average. This implied that income inequality in an area will affect the health status of the people negatively and it is statistically significant in determining the health status of residents in that area. Also, the insignificance of sex as explanatory variable indicates that it has nothing to do with how people will take care of their health. Thus, an increase in the number of male by one unit will not significantly reduce the health status in that area.

In the same vein, the result shows that as the people in the area get older they did not care more about their health. Alternatively, good health depreciate as age of respondents increases and this could be attributed to increase in poverty that has made the respondents to place low value in maintaining their health status. Thus, an increase in age by one year reduces the log-odds in favour of good health status by 0.429 units. In the same vein, the level of education of the people in the area has a negative and significant relationship with the health

status of the people in the area. Evident from descriptive statistic, respondent from primary and secondary education dominate the survey and therefore indicate that the higher the low level of education the more the reduction in the health status of respondents. Of course low level of education can easily aid increase in poverty. However, an increase in the level of education reduces the odds in favour of good health by 0.7 units.

Also, the type of job that an individual does determines whether he/she will take care of their health because the coefficient is negative. The negative sign is also established from descriptive statistic that shows artisans as the major occupation that participated in this survey. Thus, an increase in artisans by one unit will reduce the log-odds in favour of good health by 0.717 units. Lastly, income is a determinant factor in determining the health status of the people in the area. As their income increases, they tend to spend more on their health and therefore, increase the log-odds in favour of good health status in the area.

The study uses z-statistic to test for the significance of the parameters' in the model. Using 5% and 10% probability value, income inequality, sex, age, level of education and income are statistically significant in determining the health index value of the respondents while work of the respondent is not statistically significant in determining the health index value of the respondents. Therefore, out of all the six (6) variables captured in this model, five (5) variables are statistically significant at 0.05 and .10 p-value. That is, the regression analysis carried out confirmed that income inequality (proxy by Gini-coefficient), age, level of education occupation and income will determine the health index value of the respondents while sex of the respondents will not determine the health index value of the respondents.

Since the Log-Likelihood value (-103.72) of the null model falls at the subsequent iteration, it is a confirmation that our new model with explanatory variables is significantly better, or fit the model than the null model. The Pseudo R^2 is 0.156 indicate that the amount of variation in health status as it is being jointly explained by independent variables is 15.6%. However, $\chi^2=32.38$ ($p<0.01$), shows that the overall regression is significant.

Table 3: Logistic Regression Results on the Relationship between Income Inequality and Health Outcomes

```
. logit a16b Gini_Coeffi SEX AGE EDU OCCUP Inc
```

```
Iteration 0: log likelihood = -103.72071
Iteration 1: log likelihood = -91.239543
Iteration 2: log likelihood = -87.596986
Iteration 3: log likelihood = -87.530937
Iteration 4: log likelihood = -87.530784
Iteration 5: log likelihood = -87.530784
```

```
Logistic regression                Number of obs   =      298
                                   LR chi2(6)       =      32.38
                                   Prob > chi2       =      0.0000
Log likelihood = -87.530784        Pseudo R2      =      0.1561
```

a16b	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
Gini_Coeffi	-2.546261	1.188591	-2.14	0.032	-4.875857	-.216666
SEX	.6429295	.4179674	1.54	0.124	-.1762715	1.462131
AGE	-.4298281	.2235966	-1.92	0.055	-.8680693	.0084132
EDU	-.7073912	.3303946	-2.14	0.032	-1.354953	-.0598298
OCCUP	-.7171544	.1944543	-3.69	0.000	-1.098278	-.336031
Inc	.4159487	.1891238	2.20	0.028	.0452728	.7866245
_cons	5.035181	1.227821	4.10	0.000	2.628696	7.441666

Source: Author's computation using STATA 13

5. Conclusion

The study examined the relationship between income inequality and the health outcomes in Nigeria using survey method to gather the relevant data. The number of questionnaires used were three hundred (300) to gather some

necessary and relevant information. In this research work, background analysis was done to know the brief history of income structure in Nigeria, followed by the sources of income and the prevalence health matters of individuals in Ifako-Ijaiye Local Government Area and the relationship between income inequality and health outcomes of residents. Gini coefficient was used to measure the income inequality of the distribution and it is defined as a ratio with values between 0 and 1 and the estimated Gini coefficient in the income was 0.3378, which implies a greater income inequality in the area. In other to know the extent of the income inequality, the Lonrez curve was drawn which falls below the line of income equality and this implied that there was income inequality in the area. Using logistic regression; income inequality, sex, age, level of education and income are significant in determining the health index value of the respondents while work of the respondents does not determine the health index value of the respondents.

Based on the findings of this research, the following recommendations were made;

- In order to improve the health status of an individual; there is a need for government and other agencies to increase the income of their workers.
- There should be a public awareness on the use of healthcare and their implication on the longevity of the city.
- All agencies concern should invest in more health cares for the growth of the economy.
- There should be a health insurance policy for workers in their working place and this will give them a kind of incentive that they are secure and it will also increase their productivity.
- Government should direct his expenditure towards the health sector because good health will lead to high productivity in the labour market.
- In fact, it is high time to embrace micro-estimation of inequality at each locality, rather than macro-estimation that is capable of undermining the true reflection of poverty incidence. Micro-estimation of inequality will give room for comparison within locality, local government and even across the state within a country.

This research was particularly limited by dearth of literature. This was due largely to not much research works having been done in the area and as a result,

there are few reading materials on it. Also, the unfriendly behaviour of some of the respondents posed a challenge to the researcher. Some of the sampled respondents refused to fill the questionnaires; as a result, the researcher spent a longer period looking for the people who eventually responded to the questions in the research instrument.

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CHAPTER

14

THE ROLES OF COMMUNITY DEVELOPMENT OFFICERS IN SUSTAINING SOCIAL SERVICES IN LAGOS STATE

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Abstract

In line with the global development goals, sustainable development has been the yearning of many African countries, Nigeria inclusive, with 62.6% of its population living below both national and international poverty lines as at 2016. No doubt that the activities of Community Development Officers (CDOs) are essential in achieving sustainable development due to their closeness to the grassroots as well as their mandate of providing social services directly to the people. Hence, this study seeks to examine the roles of CDOs in sustaining social services in Lagos State as well as to provide valuable suggestions. The study relies extensively on secondary data from scholarly journal articles, books, dissertations, newspapers, etc. Results show that the CDOs guide the communities to identify their needs, facilitate a problem solving process, provide technical support and serve as an intermediary between the communities and other bodies such as the government, institutions or other community factions. However, general poverty among the vast majority of the populace, low level of community participation, inadequate and functional logistics, inadequate technical and financial support from the local governments (LGs) have been identified as hampering the provision and sustenance of social services in Lagos State. The study recommends that there is need for CDOs to intensify their efforts in ensuring the provision and maintenance of social services and provide adequate and functional logistics among others.

Keywords: Social Services, Sustainable Development, Community Development Officers.

Introduction

In line with the global development goals, sustainable development has been the yearning of many African countries, Nigeria inclusive, with 62.6% of its population living below both national and international poverty lines as at 2016 (Government of the Federal Republic of Nigeria, 2017). In fact, according to the Sustainable Development Goals (SDGs) report in 2018, 10% of people in developing regions are still living with their families on less than the international poverty line of US\$1.90 a day, and there are millions more who make little more than this daily amount. About 86.9 million Nigerians are now living in extreme poverty representing nearly 50% of its estimated 180 million population (Kazeem, 2018). Community Development Officers (CDOs) in Lagos State are professionals found in the Department of Community Development. Community development is a core component of social work as one of the three generic methods of social work. Community development is not of a recent origin. In the past, communities organised themselves into groups and employed communal resources and processes of community reconstruction activities through communal labour and self-help efforts. Most of these activities were for protection of the communities against invaders and provision of social services in the communities. For example, communal labour was employed in constructing homesteads, clearing farmlands, roads, and even some public utility buildings, such as “Obas” palace, market stalls and town halls (Akinsorotan and Olujide, 2007). In the South-east Nigeria, it is referred to as “Olu obodo” implying community work (Abugu, 2014). Sustainable community development cannot take place through force or order, but is most likely to happen when all actors participate and share their ideas, visions and responsibilities equally and democratically in steering and implementing their community or village development projects (Ajayi and Otuya, 2006 cited in Ozor and Nwankwo, 2008).

Social services are commonly regarded as public services which are basic to the welfare of individuals, groups and communities provided by government, private sector or voluntary sector -which include but not limited to Non-Governmental Organisations (NGOs) and Community Based Organisations (CBOs). In Nigeria, the provision of social services or social infrastructure has been the responsibility of government and the private sector (Erundu and Oladejo, 2015). However, both sectors have failed in this responsibility. In

recent times, social services are provided at the grassroots level by local governments which are the third tier of government in Nigeria. Hence in Lagos State, Community Development Department in the Ministry of Local Government and Community Affairs is responsible for the provision of social services in the local communities through the activities of Community Development Associations (CDAs). The main objective of this paper therefore is to examine the roles of (CDOs) in the provision of social services for sustainable development of communities in Lagos State via secondary sources and also to provide valuable suggestions.

Conceptual Definitions

What is the meaning of Social Services?

Social services provide a wide range of services which vary from one locality, city or town to another. Social services are a range of public services provided by the government, private, and non-profit organisations. These public services aim to create more effective organisations, build stronger communities, and promote equality and opportunity. Social service (or social welfare) refers to a variety of programmes made available by public or private agencies to individuals and families who need special assistance (Goodwin, 2005 cited in Erundu and Oladejo, 2015). Social services include the benefits and facilities such as education, food subsidies, health care, police, fire service, job training and subsidised housing, adoption, community management, policy research, and lobbying. Harmonious (2017) defines social services as a range of public services created using local or regional data, evidence, research and facts provided by government, public sector, private sector and voluntary sector employees and organisations to ensure individuals, couples, parents, families and communities receive the advice, assistance, care, education, guidance, help, information, support, solutions and training they need based on the data, evidence, facts and research from various necessary and vital sources including job centre claimant data and other local and regional multidisciplinary team data.

What is Community Development?

To understand the concept of community development, it is pertinent to define community and development separately before conceptualising community

development. Community has been defined variously by scholars. It has been defined in terms of three characteristics (a) geographic area as a place, as shared bonds and interests and as a political unit. University of South Africa (UNISA) (2017) opines that community is often viewed in geographic terms as a place where one lives e.g. the city or town. Most people belong to more than one community, whether they are aware of it or not. For example, one may be part of a community in his/her neighbourhood, church community, workplace community, sporting community, or online community. As shared bonds and interests, community can be defined by common cultural heritage, language, and beliefs or shared interests. As a political unit, Chaskin (2013 cited in Lynch and Forde, 2015) defines a community as a basis for representation, collective deliberation, mobilisation and action. This perspective encompasses communities as sites of community mobilisation and social action. Therefore, in this paper, community refers to all the people in a specific geographic area, i.e. a local government or a neighbourhood in Lagos State and to all the people or groups of people who share some common interest or function, such as welfare, occupation, agriculture, education, and religion.

Like any other concept in social sciences, the concept of development has many meanings from different disciplines. In some situations development is used as synonym for growth. According to State Resource Centre (2015), development is about local people taking control of their own lives, expressing their own demands and finding solutions to their problems. It relates to the needs and wants of the society, along with the actions taken to satisfy those needs and demands. Such actions are known as developmental activities. According to UNESCO's definition, developmental activities are conscious and scientific processes that involve five elements: population, social setup, environment, resources and technology; which when used proportionately and in a qualitative manner ensure quality of life at the macro and micro levels (State Resource Centre, 2015).

Having defined community and development, we attempt to define community development. Community development means different things to different people. According to the United Nations (cited in Erundu and Oladejo, 2015), community development is defined as the process by which

the efforts of a people are united with that of government authorities to improve the social, economic, socio-cultural conditions of the communities to integrate these communities into the life of the nation and to enable them contribute fully to national progress. Community development can be defined as a continuous process, through which community members come together to take collective action and generate solutions to their common problems (State Resource Centre, 2015). However, in 2016, International Association of Community Development (IACD) adopted a new global definition of CD as a practice-based profession and an academic discipline that promotes participative democracy, sustainable development, rights, economic opportunity, equality and social justice, through the organisation, education and empowerment of people within their communities, whether these be of locality, identity or interest, in urban and rural settings”, (IACD, 2016). In this work therefore, IACD definition of community development will be adopted.

Sustainable Development

Sustainable development has also been defined differently by different scholars, but for the purpose of this study, the most widely accepted definition will be adopted which is that of Brundtland Commission, cited in Hatthachan, (2014), it defines sustainable development as the development that “meets the needs of the present without compromising the ability of future generations to meet their own needs”. This definition implies that, sustainable development is a form of social change that emphasises continuity in meeting the needs of the people from generation to generation.

Who is a Community Development Officer (CDO)?

CDOs are participatory change agents who work in the communities where they live, and to whom they have to answer for their activities (Community Development Workers Unit (CDWU), 2007). They are required to help people in communities improve their own lives and change their circumstances. To do this, CDOs are expected to help community members to understand how they can participate in the plans for development in their communities. CDOs are expected to facilitate community participation in policy making and implementation, and in service delivery. According to University of South Africa (UNISA) (2017) community development workers help communities to help themselves. This profession is all about working alongside members of

troubled communities, inspiring them, supporting them, and offering them guidance and opportunities for initiating social change and making improvements to their own communities. Community development workers act as a bridge between marginalised communities and government authorities at local, regional and national levels. They also provide vital assistance in the distribution of funding, the implementation of community projects and monitoring the progress of the communities in their jurisdiction. Community development workers can come from a range of backgrounds and disciplines, for example development studies, social work, psychology, theology, life sciences, agriculture, and business.

Earlier Studies

In this section, literature on the role of community development officers in sustaining the provision of social services in other countries or regions is explored.

Dhavaleshwar (2016) in his work titled, “The Role of Social Worker in Community Development” mentions eight roles a social worker may play in community development. He categorises them into primary and secondary roles. According to him, primary roles are the participatory methods with the individual, groups and communities while secondary roles are both participatory and non-participatory to be used for the benefits of society at large. Primary roles include caseworker, group worker and community organiser while secondary roles are need analyser, project manager, facilitator, middle manager and counsellor. Social workers may play all of these roles in different contexts and at different times in their careers.

Mashaba (1999) assessed the differences between the roles of social workers and community development officers employed by the Departments of Health and Welfare in the Northern Province, Southern Region of South Africa. The study revealed that their roles were similar but there were differences in tasks, functions and levels of function. Mashaba (1999) revealed that CDOs performed the roles of guides/brokers, enablers/facilitators, experts/consultants, planners/coordinators, encouragers/motivators/organisers, public relations officers, educators/teachers, researchers, advocates and mediators. As guides/brokers, the CDOs helped the communities in establishing projects,

income generating projects and guided them in electing their committees. CDOs as enablers/facilitators assisted communities in the formation of projects. The CDOs assisted communities in administering and applying for funds. As planners/coordinators, CDOs involved other stakeholders because development was a multidimensional matter. As encouragers/ motivators/ organisers, CDOs encouraged communities to formulate groups and create projects. CDOs as public relations officers, engage in organising and motivating communities through campaigns. CDOs in performing their roles as educators/teachers, provide information necessary for problem situations, assist in writing business plans and practising new behaviours or skills. As researchers, CDOs assist the communities to identify their needs and go along accordingly to address them. CDOs advocate or negotiate for needed services on the behalf of the communities. As mediators, CDOs make efforts to resolve conflicts within communities and between community members.

In another area of South Africa, according to Community Development Workers Unit (2007), the role of community development workers can be described in six key points which are to assist in the smooth delivery of services by identifying and removing obstacles, strengthen the social contract between government and communities, link communities with government services, pass on community concerns and problems to government structures, support and nurture the increased exchange of information and improve government-community networks.

Nwanna (2016) conducted a study to assess the provision of social services by local governments between 1999 and 2008 in three states of Nigeria including Anambra, Lagos and Plateau States and found that local governments provided the following social services: construction of roads, health centres, classrooms, refuse disposal, street drainages, potable water, security, cleaning markets and cleaning environment. However, it was observed that community members did not participate in the provisions of these services mentioned above. People's participation in the provision of social services empowers them to be effectively involved in creating the structures and designing policies and programmes that serve the interests of all and effectively contribute to the development process and share equitably in its benefits.

From the above review, it is obvious that research in this area is scant particularly in Nigeria. Many studies were conducted in the roles of local governments in rural development but not in roles of CDOs in the provision of social services. Hence, this research will fill this gap and bring to limelight the importance of CDOs in sustainable development of Lagos State.

Theoretical Perspective

This study is based on community development theory formulated by Tan (2009). She draws her ideas of the foci, tenets, strategies and functions of community development from many scholars. According to her, the theory focuses on the organisation of community agencies, the development of local competences, and political action for change while its tenets are structural change, socioeconomic integration, institutional development, and renewal. The community development theory uses the strategies of distributive, participative, and human development and involves collective problem solving, self-help, empowerment, development of social capital, capacity building, social inclusion and exclusion. According to Tan (2009), community development theory is the most practical framework for social workers and CDOs seeking lasting change for individuals, communities and societies in which they live. It focuses on the centrality of poor, marginalised and oppressed people in the process of overcoming externally imposed social problems (Tan, 2009). This theory is very germane for community development work because it focuses on the employment of community structures to address social needs and empower groups of people which stems from its roots in sociology. When these structures and the members of the community are appropriately engaged and empowered, the role of the social worker/CDO in a community development framework lands heavily on the facilitator side of the expert-facilitator continuum. However, the theory has attracted some criticisms for lack of evidence of its effectiveness and the possibility of not securing funding in times of governmental accountability and limited funding resources.

In spite of the critiques, the theory is adopted to explicate the work of CDOs in sustaining the provision of social services in Lagos State.

Methods

This study relies extensively on secondary data from internet sources, e.g. scholarly journal articles, books, reports, dissertations, official publications and correspondence discussion documents, official papers presented at workshops and conferences, speeches and debates, newsletters and pamphlets, newspaper surveys, theses and dissertations.

What then are the Roles of Community Development Officers in Sustaining the Provision of Social Services in Lagos State?

Community Development Officers in Lagos State are professionals who work in the current Ministry of Local Government and Community Affairs. The Ministry was created from two ministries namely: Ministry of Local Government and Chieftaincy Affairs and Ministry of Rural Development by the former governor of Lagos State, His Excellency, Mr. Akinwunmi Ambode immediately after his assumption of office (Mohammed, 2017). In this respect, the Department of Community Development was moved from the Ministry of Rural Development to the new Ministry. The new creation was initiated to provide inclusive government and to enhance community welfare services (Mohammed, 2017). It was reported that Lagos State Government was committed to community development and intensifying community security as a way of strengthening the communities because growth and development should start at the community level (Okoeke, 2015). It was further reported that in order to achieve these objectives, the government had initiated a bottom to top approach to governance by making the communities an integral part of the decision making process.

Local government is a grassroots government and one of the indices of governance is provision of social services (Nwanna, 2016). According to Majekodunmi (2012), Nigerian law mandates local governments to provide the public goods and services such as establishment and maintenance of roads within the towns of the district, including sidewalks, street lights, and street drainage system, construction of water reservoirs in towns and villages, construction and management of primary schools. Other essential functions include the construction and management of centres for the care of the mother and the child, physical planning of the settlements of the districts and registration of the immovable property, solid waste collection and disposal,

food and livestock markets, slaughterhouses, management of self-help projects, registration and maintenance of civil register, and issuing business licenses, among others. Majekodunmi (2012) maintains that a key purpose of local government is to promote the well-being and quality of life of citizens and communities through effective and accountable representation and efficient performance of functions and delivery of services. Local authorities have certain advantages over more centralised organisations.

Our research shows that CDOs in Lagos State play crucial roles in ensuring the provision and sustainability of social services such as construction of schools, roads, community halls, health centres, police posts, electrification projects, streetlights, transformers and drainage channels. This is corroborated by other scholars (Majekodunmi, 2012; Nwanna, 2016). According to Lagos State Ministry of Local Government and Community Affairs (LMLGCA), the activities of CDOs include:

- Community engagement and sustainable development – here the CDOs identify the felt needs of the communities, provide grants- in- aids to the communities, sensitise and conduct capacity building, monitor and supervise projects, maintain and sustain projects. This is confirmed by the work of Mashaba (1999).
- Construction, maintenance and rehabilitation of community halls/centres across the state.
- Community mobilisation, self-help and Community Development Association (CDA) matters. The CDOs manage and oversee programmes and activities of over 3,400 CDAs in the state.
- Skills acquisition and special programme for target groups (LMLGCA, 2016). The CDOs work with CBOs, NGOs and other agencies to carry out developmental programmes for members.

These roles are not executed in isolation, but rather through a collaborative effort with the CDAs in Lagos State. CDAs are groups formed by voluntary members of a given geographical territory, with the common interest of improving the living conditions in their society (Busari-Akinbode, 2017), and are registered across the twenty local government areas of Lagos State as prescribed by Section 8 of the Community Development Associations Law (2008). This law stipulates eight duties of the Ministry of Local Government

and Community Affairs, which are as follows; to collate records of all community development projects from the returns made by the Local Government Areas; recommend to Government some selected community development; recommend to Government projects of CDAs to be supported in each fiscal year; fund the meetings and operations of the Community Development Advisory Council (CDAC); organise elections into the Executive of the CDAC; keep a register of all Community Development Committees (CDCs) in the State; organise an Annual Conference of CDAs in Lagos State to showcase model community development projects; and to ensure that the CDAC complies with guidelines as may be prescribed by the Ministry (Community Development Associations Law, 2008). These duties are being executed by the CDOs through the performance of the following roles as documented in the Ministry's report of 2016:

Guide: As a guide, the CDO/social worker helps the community identify their needs as well as means to meet these needs.

Enabler: As an enabler, the social worker or CDO may facilitate a problem solving process with the community which may be in form of helping community members to articulate their dissatisfactions and identify their causes.

Technical expert: In all self-help efforts, there is usually the need to access technical support. The social worker/CDO is useful in providing such support in areas such as community assessment, accessing information, project development and project management.

Advocate: The CDO serves as an intermediary between the community and other bodies such as the government, institutions or other community factions. All these roles validate the findings of Mashaba (1999) and are supported by community development theory.

In line with the bottom-top approach to development, CDOs endeavour to engage community members in the provision and maintenance of social services through the various CDAs in Lagos State, as noted by Okosun (2017), that projects provided solely by the government without involving the

people cannot be sustained because of the possible lack of commitment on the part of the people. However, problems such as general poverty among the vast majority of the populace, low level of community participation, logistics and inadequate technical and financial support from the LGA have been identified as hampering the provision and sustenance of social services through government and self-help efforts (Busari-Akinbode, 2017; Abugu, 2014 and Agboola, Ifesanya and Akanmu, 2012).

Conclusion

Through the Ministry of Local Government and Community Affairs, CDOs in Lagos State play crucial roles in ensuring the provision and sustainability of social services such as construction of schools, roads, community halls, health centres, police posts, electrification projects, streetlights, transformers and drainage channels though with the afore-stated challenges in the last section. Provision of social services is a necessity that must be addressed for sustainable development in Lagos State. This paper therefore concludes that, there is need for community development officers to intensify their efforts in ensuring the provision and maintenance of social services in Lagos State.

Recommendations

Based on the aforementioned challenges, this paper recommends the following;

- Social workers/CDOs should endeavour to develop stronger partnership with communities, by creating more awareness on the need for community participation in community development, intensifying community engagement and play more active roles in conflict resolutions within the community.
- CDOs should deepen their monitoring and evaluation efforts in ensuring sustainable social services. There is need for social workers to monitor and evaluate the progress and quality of every development project, as well as to provide professional advice and steps on completing and maintaining such projects.
- Also, CDOs should provide more technical and financial support to CDAs, bolster their advocacy role to government, national and international bodies in other to augment the self-help efforts of communities.

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- It is strongly recommended that CDOs place more emphasis on empowering community members economically to foster their participation in the development of their community.
- Adequate and functional logistics should be provided to CDOs to enable them carryout their duties effectively.

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CHAPTER

15

CARE OF JUVENILES UNDER THE CHILD RIGHTS LAW OF LAGOS STATE IN SOME SELECTED CUSTODIAL INSTITUTIONS

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Abstract

The main objective of this study was to assess the care of children and child offenders in particular under the Child Rights Law (CRL) of Lagos State in some selected custodial institutions. The study adopted a triangulation approach to collect both primary and secondary data from four purposefully selected Special Correctional Centres between 7th July and 30th September, 2013. Social welfare officers in charge of these custodial institutions were interrogated. Findings revealed that only two Special Children's Centres had child offenders. Other results include poor living conditions, inadequate recreational facilities, regular visits from parents/guardians and formal and informal education as stipulated in Section 52 and 224 (1) of CRL respectively. Major challenges were poor data base, poor security of the premises, shortage of skilled staff and lack of funds and awareness of the services of custodial institutions. Organisation of awareness campaigns, recruitment and capacity building for staff, improvement of living conditions to meet the CRL standard, among others, are recommended.

Key words: Child Offenders, Child Rights Law, Juveniles, Lagos State, Special Correctional Centres.

Introduction

In the past, there was no special protection to children because they were considered to be small adults. At that time, it was assumed that most adults and parents had the best interest of children at heart, thus there was no need to think in terms of children's rights (Akwara, *et al.*, 2010 cited in Ogunniran

and Nwanna, 2016a). It is a truism that children have been vulnerable right from time immemorial. They have been physically and sexually abused, maimed, killed, used in industries and child labour. The first conscious effort to grant them rights was the Minimum Age (Industry) Convention adopted by ILO in 1919 (Ogunniran and Nwanna, 2016a). Thereafter, there have been many other conventions notably Geneva Declaration on the Rights of the Child 1924, UN Declaration on the Rights of the Child 1959 and UN Convention on the Rights of the Child (CRC), 1989. CRC encapsulates the basic rights of children to survival, education, improved health conditions and protection from all forms of abuse and exploitation and also requires that these rights are implemented by all nations.

In Nigeria, Children and Young People's Act (CYPA) with other related criminal laws were the main statutes on juvenile justice administration. The Act was promulgated to make provisions for the welfare of the young and the treatment of young offenders and establishment of Juvenile Courts. The CYPA did not provide for the welfare and rights of many children which fell outside its purview. Its legal provisions fell short of the rights afforded by the African Charter on the Rights and Welfare of the Child (ACRWC), CRC, and United Nations Standard Minimum Rules for the Administration of Juvenile Justice. Furthermore, some studies such as Alemika and Chukwuma (2001 cited in Ogunniran and Nwanna, 2016a), Nwanna and Akpan (2003 cited in Ogunniran and Nwanna, 2016a) have reported inadequacies in structures of juvenile justice administration and gross violation of the rights of child inmates in the custodial institutions. In March 1991 therefore, the Nigerian government ratified CRC and domesticated it in 2003 as Child Rights Act (CRA). This Act ushered in a new legal framework with catalogues of adequate protection of the rights of the children, in general, and of the child offenders in particular. This was adopted as the Child Rights Law (CRL) of Lagos State in 2007. Since the adoption of the law in Lagos State, it has not been evaluated to assess its efficacy in sustaining the welfare and rights of children in the custodial institutions. This lacuna informed this research.

Objectives

The broad objective is to examine the care of juveniles under the Child Rights Law of Lagos State in some selected custodial institutions specifically to:

- Determine the number of child offenders in some custodial institutions in Lagos State.
- Assess the treatment of juvenile offenders in some selected custodial institutions in Lagos State under the CRL.
- Identify the challenges faced by social workers in the implementation of CRL in Lagos State

Research Questions

- How many child offenders are in the selected custodial institutions in Lagos State?
- How are juvenile offenders are treated in selected custodial institutions in Lagos State under the CRL?
- What are the challenges experienced by social workers in the implementation of the CRL in Lagos State?

Literature review

Definition of Key Terms

Definition of a Child

A child is defined variously by different regions of the country with different criteria. CYP A defines a child as a person under the age of 14 years and a young person as a person who has attained the age of 14 years and is under the age of 17 years (Ogunniran and Nwanna, 2016b). In Nigerian juvenile justice system, laws distinguish between adult offenders and child offenders or children who are in need of care and protection with respect to criminal responsibility. Section 50 of the Penal Code of the northern Nigeria and Section 30 of the Criminal Code of southern Nigeria define a child on the basis of criminal responsibility, that a child younger than 7 years is considered not to be criminally liable and presumed to be incapable of committing an offence (Abdulraheem-Mustapha, 2016). Under Sharia law, the age of criminal responsibility is determined either by puberty or if the person has attained the age of 18 years, except in the case of Zina (fornication or adultery), where the age of criminal responsibility is 15 years (Abdulraheem-Mustapha, 2016). CRA and other international instruments define a child as a person under the age of 18. Some northern states which have not yet

domesticated CRA still use age of criminal responsibility while Akwa Ibom uses age of marriage which is pegged at 12 years for girls. Despite the CRA's position, Akwa Ibom State has set the minimum age for marriage at 16 years.

Definition of Child Rights

Rights are fundamental human rights which are inalienable rights of all human beings. Child rights, therefore, are human rights with particular attention to the rights of special protection and care afforded to minors, including their rights to association with both parents, human identity, basic needs for food, universal state-paid education, health care and criminal laws appropriate for the age and development of the child, equal protection of the child's civil rights and freedom from discrimination on the basis of the child's race, gender, sexual orientation, gender identity, national origin, religion, disability, colour, ethnicity, or other characteristics (Amnesty International, 2008) .

Definition of Child Rights Law

Law is the body of official rules and regulations, generally found in constitutions, legislations, judicial opinions, and the like, that is used to govern a society and to control the behaviours of its members, so, law is a formal mechanism of social control (Lindsell, 2008 cited in Ogunniran and Nwanna, 2016b). Child Rights Law therefore is the point where the law intersects with a child's life which includes juvenile delinquency, due process for children involved in the criminal justice system, appropriate representation, and effective rehabilitative services; care and protection for children in state care; ensuring education for all children (Ahearn *et al.*, 2007 cited in Ogunniran and Nwanna, 2016b).

Related Studies

Lucas, T. B. (2010) reported a study on the role of social work in juvenile justice system in Botswana particularly with emphasis on the provisions of the Children's Acts of 1981 and 2009 for dealing with juvenile offenders. The results indicated that structures, infrastructure and services associated with juvenile justice were either inadequate or non-existent. Probation services were provided by untrained personnel; probation rules and regulations were outdated; infrastructure such as attendance centres were not available and juveniles committed to prison sentences were not given specialised care and

treatment consistent with their age and level of maturity. He concluded therefore that Botswana's juvenile justice system was profoundly underdeveloped.

Human Rights Watch in (1999) investigated the conditions and care of juvenile inmates in 2 urban prisons and 2 juvenile institutions in Pakistan. They interviewed children, directors of the institutions, judges, legal aid lawyers, and physicians. Results revealed that overcrowding was pervasive, children were housed in dormitory-style barracks and slept either on the floor or on raised cement blocks, unhygienic environment and provision of education and vocational training was severely limited. Children committed to borstal home who had been sentenced to "rigorous" imprisonment worked in six hours shifts with antiquated equipment at tasks such as tailoring, carpet-weaving, and carpentry. The disciplinary measure most frequently imposed on children was solitary confinement for up to two or three weeks; they were deprived of any communication with their families during that time. The findings also revealed that several juveniles attending classes in the borstal had their legs in iron shackles, 17.4% of them had been punished through hard labour, food deprivation and being forced to stand in the hot sun or maintain uncomfortable positions. Human Rights Watch in (1999) therefore argued that all these inhumane treatments violated the provisions of the Convention on the Rights of the Child.

Nwanna and Akpan (2003) conducted a study on juvenile justice system with emphasis on Sections 37 and 40 of CRC in the six geo-political zones of Nigeria. The research findings revealed a high level of violations and abuse of the children's rights and gross deficiencies in the administration of the juvenile justice system in Nigeria in terms of laws, policies, and practice. The juvenile justice system was characterised by low calibre of personnel, dilapidated and inadequate facilities and inadequate educational and vocational facilities and funding. There were gross violations of children's rights to care, protection. Children complained of being compelled to confess to guilt, abused and tortured. Horse whipping and frog jumping were used as measures of corporal punishment. The custodial institutions were more of punitive than reformative and rehabilitative. The findings also demonstrated

that the system contravened the stipulations of the Articles 37 and 40 of CRC with impunity.

Validating the findings of Nwanna and Akpan (2003), Alemika *et al.*, (2004) reported the implementation of the CRC in Nigeria. Their findings in the treatment of Juveniles by Custodial Officers revealed that about 40% of the respondents stated that they were verbally abused (43.5%); physically assaulted (39.1%) and threatened with beating by Custodial Officers. A high proportion of juvenile offenders were subjected to mental or psychological torture by means of threat of beating (45.9%), denial of food (30.0%) and long detention (31.7%). However, more than one half reported having adequate facilities for sleeping (58.5%); and materials for proper hygiene (51.0%), and (47.5%) claimed that they were properly fed. The provision of education, vocational training, and moral/religious education along with the safe custody of the offenders were grossly inadequate both in quantitative and qualitative terms, within the Nigerian juvenile institutions and the wider criminal justice system. Workshop facilities in the nation's juvenile institutions and prisons were in a state of obsolescence and un-serviceability. The problem of inadequate staff to teach as well as overcrowding also militated against the effective utilisation of the even obsolete facilities in the workshops.

All these studies highlighted the challenges and inadequacies in the juvenile justice systems.

Theoretical Perspectives

Implementing effective social work practices or approaches within the social work field is extremely important to help promote change among client systems. Social workers utilise numerous approaches, theories and practices that are designed to facilitate change among the clients. This work is premised on an eclectic paradigm adopting three theories and a conceptual framework adapted from political economy theory. The other three theories are ecological theory, attachment theory and good lives model.

The Ecological Perspective

Ecological perspective is a variant of social systems model formulated by Germain (1979 cited in Pardeck, 1988). Although rooted in systems theory

and using systems concepts to integrate information, the ecological perspective provides a broader base from which to integrate theories from several disciplines and to more fully explore the nature of the relationship between the individual and the environment. For example, this perspective incorporates concepts from role theory (among many others) to explain how behaviour and relationships are affected by socio-cultural factors. From an ecological perspective, social roles determine not only how a person in a particular position behaves, but also how others behave toward that person. The systems model, as it applied to social systems, seemed to provide the social work practitioners with a means to view human behaviour through a wide lens that allowed for assessment of the client across a broad spectrum of human conditions—as a person, as a member of a family, and as a participant in the community and the wider society (DeHoyos & Jensen, 1985). The person-in-environment system becomes the unit of analysis (for example, the child in the context of family, school, or peers).

Attachment Theory

Attachment Theory was developed by John Bowlby (cited in McGrath, 2013) whose early work focused on children in institutional care, such as those being raised in orphanages after the Second World War and those denied contact with their parents during extended hospital stays. Attachment theory posits that attachment is a formative developmental process affecting all areas of a child's development. The nature and quality of a child's early attachment to a primary caregiver is a significant part of the foundation for adulthood, affecting the child's cognitive, emotional, psychological and social functioning (McGrath, 2013). If a child was made to feel safe and secure and was given appropriate attention and affection, then the child would develop future relationships and interact with others in a way that mirrored this positive relationship. Alternatively, a child who did not receive attention, affection or feel safe and secure was more likely to develop emotional and/or social problems and have a distorted or inaccurate view of others in future relationships and interactions. These individuals would develop a more negative psychological and emotional base. Attachment theory informed child welfare practice with children in custodial care and their families. Children who enter into custodial care present with complex behavioural issues, at times mental health issues, substance abuse issues and criminal activity

among other behaviours that increase their risks of harm and vulnerability (Institute for Human Services, 2001 cited in Dubois, 2014). For such children, anxieties of rejection and worthlessness dominate mental scripts and behaviours (Sng, 2009 cited in Dubois, 2014). Children in care are frequently given labels such as manipulative or oppositional when they do not access or participate in the supports and services made available to them (Sng, 2009 cited in Dubois, 2014). Negative labels may also be attributed to a child in care by their peers and adults in the child's life such as workers, teachers, therapists, and social workers if there is a lack of understanding or awareness regarding the child's maladaptive attachment strategy influencing the exhibited coping behaviour (Finzi, *et al.*, 2000 cited in Dubois, 2014). It therefore becomes imperative that social workers in the custodial institutions should conduct social inquiries, assessments and other social activities and understand the attachment relationships of the children under their care in order to reform and rehabilitate them effectively.

Good Lives Model (GLM)

The Good Lives Model (GLM) developed by Tony Ward and his colleagues in 2003 is a strengths-based approach to offender rehabilitation. Strengths-based approach assumes that every individual has identifiable strengths and by focusing on these strengths, clients can grow and overcome their difficulties. GLM augments the risk, need, and responsivity principles of effective correctional intervention (Andrews and Bonta, 2010 cited in Prescott, 2013) through its focus on assisting clients to develop and implement meaningful life plans that are incompatible with offending. This model offers a unique and comprehensive approach to the rehabilitation of sexual offenders but has gained international attention as a useful theory and practice model for general offender rehabilitation (Phifer, 2012). A central assumption of the GLM is that offending results from problems in the way an individual seeks to attain primary human goods e.g. happiness, relationships/friendships, and experiencing mastery in work and leisure activities. Identifying the primary goods that are most important to clients, and those that are implicated in the offence process, constitutes a fundamental component of assessment because treatment explicitly aims to assist clients to attain these primary goods in personally meaningful, rewarding, and non-harmful ways in addition to addressing re-offence risk (Yates *et al.*, 2010 cited in Prescott, 2013). Within

the GLM, in addition to representing risk factors for recidivism, criminogenic needs are conceptualised as obstacles that block or otherwise frustrate pro-social attainment of primary human goods. They are therefore directly targeted in treatment as a crucial step towards assisting clients to attain primary goods in their lives. In this way, clients become invested in the treatment process because treatment explicitly aims to assist them live a fulfilling life in addition to reducing and managing risk. Offenders want better lives not simply the promise of less harmful ones.

Conceptual Framework of the Study: Political Economy Perspective of the Service Delivery Organisations

Political economy perspective of the service delivery organisations was formulated by Garrow and Hasenfeld (2010). It is one of the variants of political economy theory with the ideology of economic nationalism, a situation where the state possesses all the power while individuals work to enjoy the economic benefits (Corporate Finance Institute (CFI), 2015-2019). This perspective states that human service organisations have two kinds of resources (a) legitimacy and power and (b) production resources such as money, clients and personnel in order to have an effective service delivery system (Garrow and Hasenfeld, 2010). Within a task environment, organisations and interest groups including clients have a potential stake in the organisation either because they control important resources needed by it or because it can advance their own interests. The theory proposes that the organisations depend on resources controlled by external elements such as government, hence, the more the dependence on external element, the greater the influence of that element on the organisation. Therefore, such organisations will reflect the constraints and contingencies imposed by those who control needed resources (Cress & Snow, 1996 cited in Garrow and Hasenfeld, 2010). It is quite common for social service agencies to obtain governmental contracts to deliver services such as child protection. To secure these contracts, the agencies may undertake several strategies, including (a) providing good treatment for clients which can demonstrate positive outcomes; (b) using unpaid or low-paid staff to save costs; and (c) including influential persons on their board of directors (Kramer & Grossman, 1987 cited in Garrow and Hasenfeld, 2010).

Extrapolating this theory into the case of implementation of Child Rights Law of Lagos State, in custodial institutions, the institutions depend more on the resources provided by Lagos State Government which may or may not be sufficient for effective service delivery. This may reflect in the quality and number of personnel, quality of services rendered, etc. (See the Figure 1 below). For instance, at the inception of the law in Lagos State, the then governor, Mr. Raji Fashola employed all manners of people to work in these institutions as social workers.

Political economy perspective has been criticised for undermining the importance of moral values and ideologies that transcend calculations of power and money in shaping organisational behaviour (Garrow and Hasenfeld, 2010).

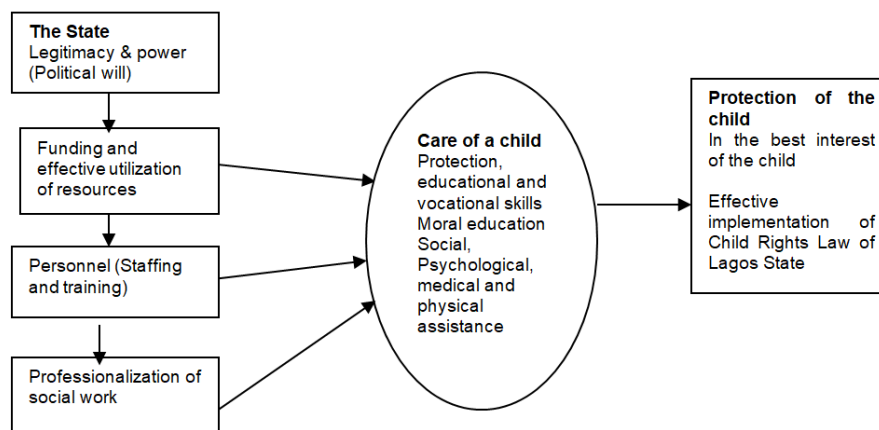


Figure 1: Conceptualisation of the Political Economy Perspective of the Service Delivery Organisations

In summary, these theories will guide social workers in the care and treatment of children in their respective custodial institutions.

Research Design

It was a cross sectional and exploratory survey.

Study Settings

There are specialised institutions for the detention and treatment of juvenile offenders in Nigeria. These include Approved Schools, Remand Homes and Borstal Institutions. The Approved School system is traced back to 1933 when it replaced the reformatory and Industrial Schools of the 19th century, earlier reorganised in 1908 (Nwanna and Akpan, 2003). Approved Schools essentially catered for boys and girls who were more highly disturbed and less responsive to therapy. Reformatory and Industrial Schools were said to have been established in Nigeria first time at Enugu in 1933 following the British colonial pattern and later at Isheri and Military Street Lagos (Igbo, 1999:84). Generally, the law establishing Approved Schools stipulates that only children between 10 and 16 years of age should be admitted to the Approved Schools. Deriving from the Borstal Institutions and Remand Centre Act (no. 32 of 1960) the Children and Young Person' Act (CYPA) also empowered Native Local Authority and Local Government Council to establish Remand Homes as stipulated in Section 15 of the Act. The history of Remand Home establishment is as old as history of social welfare in Nigeria. Social welfare activity in an organised setting under the Lagos Colony came into being in 1942. By 1945, the first Boys' Remand Home was established in Military Street, Lagos. This was eventually moved to No. 1, Industrial Avenue, Sabo, Yaba in the early 1960s. Also, Bolade Boys' Remand Home had existed at Oshodi in the late 1960s. By 1976, the Remand Home in Yaba was merged with the existing home at Oregun.

Remand Homes were established to cater for juvenile offenders whose offences would attract imprisonment if they were adults. They were for short periods only and for serious offences. Remand Homes sharing most of the characteristics of prisons, serve as places where juveniles facing trial in a juvenile court were sent pending the final determination of their cases. Also, juveniles who were thought to be beyond parental control or in need of care and protection were sent to remand centres until suitable foster homes were found for them. Ordinarily then, children in Remand Homes were usually there on transit. (Igbo, 1999:86-87 cited in Nwanna and Akpan, 2003). In recent times, these homes were re-christened Children Correctional Centres to serve the purpose of the CRL. For instance, in Section 238 Subsection (4), the CRL prescribes that "*Children Correctional Centre shall be a place in which*

offenders shall be detained and given such training and instruction as shall be conducive to their reformation and re-socialisation, and the removal or reduction, in terms of their tendency to commit anti-social acts and such other acts which violate the criminal law". In Subsection (5), "Special Children Correctional Centre shall be a place in which a child, who is found to be incorrigible or is exercising bad influence on other inmates detained in children correctional centre, may be detained".

There are five correctional centres in Lagos with two situated in one location i.e. Special Correctional Centre for Girls, Idi-Araba and Children's Correctional Centre, Idi-Araba. Four of them were investigated. They are: Special Correctional Centre for Boys, Oregun; Special Correctional Centre for Junior Boys, Birrel Street, Yaba; Special Correctional Centre for Boys, Isheri and Special Correctional Centre for Girls, Idi-Araba, Mushin Local Government. All the four Correctional Centres had the same administrative structure. The centres are under the headships of Principals followed by the Vice Principals. Others are Social Welfare Officers, teachers, vocational instructors, health workers, care givers, cooks, cleaners and security personnel. Social workers act as probation officers and correctional officers. They monitor the inmates' well-being and carry out social investigations on each inmate. They also counsel the children and perform home tracing. They receive voluntary donations on behalf of the children and receive visitors, agencies, organisations, parents and guardians. Lagos State Government is the major financier of the agencies through the Ministry of Youth, Sports and Social Development supported by philanthropists, Non-Governmental Organisation (NGOs), churches and mosques. They render assistance in terms of food, clothing, lectures and health sessions and so on. In all the Centres, daily activities commenced with morning devotion at 5.30 a.m. and ran throughout the day to 10.00 p.m. when the children would go to bed.

Method of Data Collection

Secondary data were collected via desk review of extant literature. Primary data were collected via Key Informant Interviews (KII) and observation. KII guide was constructed.

The main objective of institutionalisation of children is to reform and rehabilitate them to become better citizens of their societies. This involves training and treatment. According to Section 224 (1), “*the objective of training and treatment of a child placed in an institution shall be to provide care, protection, educational and vocational skills with a view to assisting the child to be socially constructive and play productive roles in the society.*” Furthermore, Subsection (2) states that “*a child offender in an institution shall be given care, protection and all necessary assistance, including social, educational, vocational, psychological, medical and physical assistance, that he may require, having regard to his age, sex, personality and in the interest of his/her development.*” Based on these sections of CRL, the following questions were included in the KII guide: Whether the social workers were aware of the CRL; what services were provided for child offenders; the categories of children committed into the custodial institutions; number of child offenders in the institutions; the offences majority of them committed; the number of years child offenders spent in custody; the children’s feeding pattern; how they were treated when sick; the number of children in a room/cell; and how often the parents or relations of the child offenders visited them. Other questions are: the type of punishment the children received when they violated the institution’s rules; the types of education/training provided for the child offenders and the other vulnerable children while in custody and the challenges experienced in the implementation of the CRL.

Field work took place between 7th July and 30th September, 2013. Four experienced Research Assistants (RAs) were recruited because this is a part of a larger study. The RAs were trained for one day to enhance the quality of the data collected. In each of the four custodial institutions, the principal social welfare officer or welfare officer-in-charge was interviewed. This was because Section 184 (1) states *inter alia* “*where a child is accommodated in a children’s home, it shall be the duty of the person managing the children’s home to: (a) safeguard and promote the welfare of the child; (b) make such use of the services and facilities available for children cared for by their own parents as appears to that person reasonable in the case of the child; and (c) advise, assist and befriend the child with a view to promoting his welfare when he ceases to be so accommodated*”.

Ethical issues were also observed. KII data were transcribed. Data were analysed using content analysis

Results

The social welfare officers were first of all asked if they were aware of the CRL. All of them admitted to be fully aware of the Child Rights Law in Lagos State. With respect to the services they rendered to the juveniles, shelter, behavioural modification/psycho-social treatment, social investigation, correctional services, education and training and rehabilitation and reformation were provided.

For the categories of children committed into the institutions, the respondents said the following categories were committed: children beyond parental control, children in conflict with the law/child offenders, children in need of care and protection including lost but found on the street, children in need of shelter i.e. the sexually and physically abused, vulnerable children and those who were orphaned, task force children/children rescued on the road e.g. hawkers. This category of children was mainly for the Special Correctional Centre for Girls, Idiaraba, Mushin.

On the question of the number of child offenders in each Centre, this varies from one centre to another. For example, Oregon Centre had 18 boys, 4 in Idiaraba Centre for girls, while Birrel and Isheri had no child offenders. For Oregon and Idiaraba Centres, the major offences committed by the child offenders were stealing, burglary, robbery, prostitution, aiding and abetting, etc., although most of the offences were still under trial and not yet established and confirmed.

The study also wanted to know how many years, children were supposed to spend in correctional institutions. Various periods were mentioned by the respondents. For Birrel and Isheri respondents, it was between 6 months and 3 years while for Idi Araba respondent, it was between 3 and 9 months. Birrel respondent added:

At most 3 years. Usually it is 6 months. CRL stipulates minimum of 6 months and maximum of 3 years in a correctional institution but

usually the order expires every 6 months and it is renewed because normally a child cannot complete his education in 6 months.

Isheri respondent was of the same opinion and had this to say:

Maximum of 3 years, minimum of 6 months. It depends on the offences e.g.

- (i) Beyond parental control, the magistrate reserves the right to commit the child for the first six month of which the home report would be tendered in the next adjournment just to see the improvement in his character moulding, so that he could be re-united with his family.*
- (ii) Care and protection, maximum of 3yrs because they have to go school and learn a trade or vocation e.g. shoe making, vulcanizer, furniture making or carpentry, etc.*
- (iii) Children in the need of shelter, it depends on the ability and willingness of their parents or guardian to accept them after the social workers must have worked on them.*

Oregun respondent opined that the number of years depended on the court and offence. He said, *“It depends on the court. It is the court that determines that. Some are one year. Some are two while some are more than that”*.

When asked about their feeding patterns, all the respondents stated that the children had three meals daily in all the correctional centres. The respondents claimed that when the children were ill, they would be taken to hospitals for treatment. Oregun custodial institution actually had a sick bay where the children would be given first aid treatment before the arrival of the doctors. Other centres were attached to one hospital or the other. They also claimed that they had some friends of the homes who were doctors that came to assess the children’s health and helped to give treatment when the children were sick.

Hygienic environment is very paramount to the health of the inmates therefore the respondents were asked to state the number of children in a room. Their

responses revealed that dormitory type of hostels was being operated against rooms. One dormitory contains between 25 and 30 children

About parental or guardians' visits to the institutions, all the respondents confirmed that the children were visited at least once a month. Section 224 (4) permits parents and guardian of child offenders placed in institutions to have the right of access to the children.

In case of type of punishments the child offenders received when they violated the institution's rules, the respondents mentioned cleaning of surroundings, picking of refuse, extension of chores, cleaning of toilets, confinement and finally counselling. It is only in one of the institutions i.e. Isheri where the respondents added cutting of grass and caning saying:

They cut grass and we suspend people that clean the toilets, bathroom and those that do kitchen works and we now put them there for certain numbers of days, and if they don't show remorse, then we cane them on their palms like six strokes.

The respondents were asked to provide information on the types of education/training given to the child offenders while in custody. They reported that the children were given both formal and informal education and vocational trainings such as shoe making, tailoring, vulcanizing, Global System for Mobile communications (G.S.M) Telephone repairs, tie and dye, barbing, etc.

The respondents also reported that the children would receive after care services when released. Such services include monitoring and supervision, assistance to re-integrate into the society, moral and financial empowerment. Some would be equipped with relevant tools based on their chosen vocational training. Opportunities would be provided for them to write trade tests and acquire certificates.

The respondents were asked to evaluate their services. They rated themselves as being satisfactory. They described their relationships with the children as cordial like parents-child-relationships because they are the locus parentis.

With regards to challenges facing the custodial institutions, Oregon respondent said that the greatest challenge was medical. The respondent argued that a facility with over one hundred children should have a resident medical doctor for prompt treatment. Another challenge was funding and it was suggested that government should get support from the members of the public. According to Birrel respondent the major challenge was lack of awareness of the services of the correctional institutions. Others were poverty, bad living condition, financial constraint on the part of the parents which forced them to neglect and abandon their children coupled with the cosmopolitan nature of the state, bad addressing system and bad data base.

For Isheri respondent, funding, logistics lack of medical personnel were parts of the challenges. The respondent expressed some fears about security issues as he alleged that too many people came into the custodial institution on daily basis. The respondent said:

There is problem of funding. There is no utility van for hospital and market, no sick bay for sick children and competent medical personnel, no adequate security and influx of people into the home does not conform to the international standard.

The respondents were asked to suggest ways to solve the challenges they were experiencing. All of them believed that CRL should be reviewed because there seemed to be too many flaws. Creation of awareness had been mentioned severally by the other justice administrators. Oregon respondents suggested recruitment of more professionals and capacity building among others. According to the respondent:

The government should probably recruit more professionals like psychologists to take care of their psycho-social needs, medical officers to reside within the home so that they can receive treatment on time. Training of social workers is also very important. They should train the social workers to upgrade them. Another thing is on the Child Rights Law itself. Those that formulated the CRL are not practitioners. There are so many flaws in the law like assigning responsibilities to wrong body. The procedure for guardianship and protection are

initiated from the court and it shouldn't have been so. And there is no strict punishment for offenders of the law. There should also be a part of the law that will differentiate between formal and informal care. People are just establishing NGOs here and there saying they are giving care to children. This has to be strictly monitored. More so, in the CRL, there is no table of content and you find it difficult to locate what you are looking for.

The Birrel respondent added improvement of the standard of living of the people, review of wages of workers, creation of good data base and correction of the addressing system for easy home tracing. The respondents also noted that the law did not take into cognisance the culture of the people that were directly affected by this law e.g. issue of extended family, guardianship and family relation.

The Isheri respondent opined that funds should be provided. There is need for private partnership with humanitarian service base organisations like they do in hospitals e.g. HIV/AIDS 'GHAIN' programme. Other suggestions are provision of utility/van for mobility purposes, functional/sick bay with medical personnel, provision of adequate and competent security personnel and competent staff with professional background. Government should come and assist in area of recreational activities, home like this place need to be spacious; giving of land to sister ministries should be discouraged e.g. giving of the football field to sports.

Discussion of Findings and Their Implications

Among the services rendered to the children is social investigation. This is validating ecological and attachment theories (Bowlby cited in McGrath, 2013) which posit that social workers need to do thorough assessments in order to diagnose the causes of the children's situations and thereby be able to reform and rehabilitate them.

Only Oregun and Idiaraba Special Children's Centres had child offenders i.e. eighteen and four respectively. This implies that the Centres served more as shelters than as detention homes for child offenders. The policy implication

here is that more children are homeless, street children or beyond parental control.

Room occupancy rate is a good measure of healthy environment so the respondents were asked to state the number of children in a room. It was revealed that there were about 25 to 30 children in one dormitory. This could be satisfactory as long as the dormitories are not over crowded. The finding supports the finding of Human Rights Watch (1999) which observed that juvenile inmates in Pakistan custodial institutions were kept in dormitories. Secondly, personal observation revealed that the conditions in the Centres had improved tremendously. At the time of the study, they were found to be clean and fit for habitation. This is probably because in Section 167 (1a) the law mandates the state to provide accommodation for children under her care. This finding is contrary to the findings of earlier studies by Alemika and Chukwuma (2001), Nwanna and Akpan (2003) and Human Rights Watch (1999) where the conditions were found to be very poor and unhygienic. They looked better than the Approved Schools and Remand Homes of earlier years prior to the enactment of the CRL in Nigeria. Meal situations were observed to be satisfactory. The implication of all this is that CRL is indeed good and has improved the situation of children in conflict with the law and other vulnerable children under the custody of Lagos State.

Visits from relations are important aspect of treatment in these centres. The frequency of parental visits would enhance the speedy reformation of the children. The study found that parents and guardians visited inmates regularly as stipulated in Section 52 of the CRL which *inter alia* says (1) *Where a child is in the care of the State Government or an appropriate authority, it shall, allow the child reasonable contact with: (a) the parents of the child; (b) a guardian of the child; (c) a person in whose favour a residence order was previously granted immediately before a care order was granted; and (d) a person who, had care of the child by virtue of an order made by Court.*

The results showed that the punishments meted out to erring inmates included caning. Caning may be accepted as long as it does not cause any bodily harm. This is contrary to the inhumane treatment children in conflict with the law

had received while in the Remand Homes and Approved Schools in Lagos State (Alemika and Chukwuma (2001); Nwanna and Akpan, 2003)

It was discovered that formal, informal education and vocational trainings were provided for the inmates. In Section 224 (1), CRL states that “*the objective of training and treatment of a child placed in an institution shall be to provide care, protection, educational and vocational skills with a view to assisting the child to be socially constructive and play productive roles in the society*”.

In view of this, education and vocational training are very germane to the successful rehabilitation of the children. It was observed that all the centres had schools with Principals, Vice Principals, teachers and vocational instructors within their premises contrary to Approved Schools and Remand Homes days when the children had to go to schools outside the homes with inadequate number of instructors or none at all. All these results and observations demonstrate that the CRL has positive effects on the child justice system.

The findings revealed that when released, the children would be given after care services that equip them for proper re-integration into the society. Evaluation of their services showed that the respondents described their services as being satisfactory with cordial relationships with the children.

With regards to challenges facing the institutions, the study revealed the following lack of medical facilities, funding, lack of awareness of the services of custodial institutions, bad living conditions, bad addressing system, bad data base, lack of utility van for hospital, inadequate recreational facilities and market and inadequate personnel. All these challenges lend credence to the claims of political economy perspective of the service delivery organisations which states that organisations are resource dependent on external forces and hence are likely to have constraints in carrying out their duties (Cress & Snow, 1996 cited in Garrow and Hasenfeld, 2010).

Recommendations

Based on the findings, the following are recommended:

- Parents should take proper care of their children and should not abdicate their caring role.
- Enlightenment campaigns, seminars and workshops should be organised to create awareness of the services of the Children's Correctional Centres.
- More professionals e.g. psychologists, medical personnel, social workers should be recruited while capacity building should be organised for the employed social workers.
- Government should endeavour to establish a sick bay in each of the institutions and employ at least nurses to take care of the sick inmates before the arrival of doctors.
- Living conditions in Birrel Correctional Centre should be improved to meet the CRL standard.
- Security men should be employed to guard the premises of these custodial institutions.
- Government should call upon private individuals, philanthropists and corporate organisations to partner with them in funding the institutions.
- Recreational facilities should be provided in each of the institutions.
- Utility vans, at least one, should be provided in each Correctional Centre to help in their routines.
- Seminars and workshops should be organised for the general public about the rehabilitation of children who had been in custody for easy re-integration into the larger society after discharge.
- Parents of children in correctional institutions should be enlightened about the progress of their children from time to time so that they can easily accept the children when discharged.
- Ministry of Women Affairs and Poverty Alleviation (MWAPA) has simplified the law and so it should be well disseminated.

Conclusion

Lagos State has started a commendable journey on the implementation of Child Rights Law in the State. Future Reform Agenda must pay particular attention to the key issues raised in this research.

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CHAPTER

16

INCIDENCE AND SEVERITY OF HEALTH POVERTY IN LAGOS STATE: A STUDY OF SELECTED LOCAL GOVERNMENT AREAS (LGAs)

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Abstract

Poverty as a concept has evolved over the years, and is now of varied forms such as energy poverty, water poverty and health poverty. This study therefore explores health poverty in Lagos State with the aim of ascertaining the depth and gap. To achieve this, descriptive survey design which involved the use of well-structured questionnaires were administered to 346 respondents from 10 Local Government Areas (LGAs). The data was analysed using various analytical tools such as descriptive statistics, headcount, mean overshoot and mean positive overshoot at varied thresholds. The findings revealed that there were high incidence and intensity of health poverty among the sampled/individuals in the studied. However, as the threshold increased upwards, the incidence and severity of health poverty decline. Based on the findings, the study therefore recommends among others that, most individuals need to be protected against excessive healthcare spending.

Key words: Intensity, Severity, Health Poverty, Catastrophic, Threshold.

1. Introduction

Poverty and ill-health are two issues inhibiting growth and development of most nations, especially in Less Developed Countries (LDCs). These two developmental issues are so challenging to the point that, both have received much attentions even at international forums. For instance, the Millennium Development Goals (MDGs) which had eight time-bound agendas had two of

the goals focused on these challenging issues. However, at the close of MDGs, the outcomes achieved on these two goals fell short of their set targets. By 2016, the Sustainable Development Goals (SDGs) commenced, and is meant to finish the unfinished business of MDGs. But, in the on-going development agenda, goal 17, which is basically on health issues, have been enlarged. By 2009, Nigeria a visible nation in sub-Saharan Africa (SSA), had 80 percent of her population fed on less than \$1 per day (World Bank, 2010), now over four hundred and fifty naira (₦ 450). Her health indices compared to other nations' health indices in developed world are frightening. In fact, Umoru and Yaqub (2013) remark that, the state of health of most Nigerians are precarious, and that, the healthcare system is nose-diving. They stressed further that, the maternal mortality rate is one of the highest in the world, and the under-five and adult death rates are above the SSA mean death rate.

The link between health and poverty has shown that ill-health has a way of affecting wellbeing, and in turn influences economic development. A study by Aregbesola and Khan (2018) reveals that most households are now vulnerable to poverty due to spending on ill-health. The study discloses that, healthcare bills have increased poverty headcount by 0.8 percent, and that many Nigerian residents are living below the poverty line. Poverty, directly or indirectly has the ability to influence all human endeavours. An instance is, a household who feeds on less than \$1 a day certainly cannot conveniently afford any basic or qualitative healthcare services. Where such a household struggles to accommodate the bills, her living conditions would no doubt deteriorate. The 80 percent spending on healthcare in 2009 by households was an out-of-pocket (OOP) expenditure. By implication, this compounded the economic woes of most Nigerians (Federal Ministry of Health [FMOH], 2009), and somehow has limited some people's access to basic healthcare services (Aregbesola & Khan, 2018). For instance, about 36 percent expectant mothers delivered in a health facility, and 38 percent of the deliveries were handled by skilled birth assistants (Nigeria Demographic and Health Survey [NDHS], 2013). This is an indication that, over 60 percent of the deliveries during the said period, was done under circumstances not safe, and perhaps via crude means. This probably could be as a result of the inabilities of the individuals involved to afford fees charged in any of the formal health facilities.

One consequence of impoverishment is health poverty or poor health (Todaro & Smith, 2008). Health poverty is a low health capital which results to deplorable health status of households. Apart from the inabilities of some households to foot their bills occasioned by their impoverished state, one other way most households have crept into poverty is through spending as a result of ill-health. Studies have revealed that, some households spend large portion of their incomes on curative healthcare while having little left for food and non-food spending. Where food and non-food share of the total expenditure fall short of the share of health spending, such a scenario is considered catastrophic health spending (Wyszewianski, 1986), and could leads to deplorable health status of a person or household. This form of poverty is known as 'health poverty.' It is a situation of spending excessively to treat ailments. In 2014 alone, approximately 72 percent of the health expenditure was out-of-pocket (World Development Indicator [WDI], 2016). This is an indication that most Nigerians are still engaged in postpaid health system, and very likely catastrophic health expenses.

Poverty over time has evolved to have forms such as energy poverty, water poverty and now health poverty. Going by available statistics, many residents in Nigeria are already spending catastrophically as a result of ill-health (deplorable state of health or poor health). Studies have investigated catastrophic health spending in Nigeria; however, rare studies have looked at health poverty vis-à-vis its magnitude. This study therefore, explores issues around health poverty using individual catastrophic healthcare expenditure, with the aim of ascertaining its incidence and severity in Lagos State. To achieve this, the study is structured thus: following the introductory section is conceptual and literature review on health poverty in section 2. In section 3, the theoretical framework and methodology are discussed. Thus, section 4, exploited results presentation and interpretation while section 5 focused on conclusion and policy implications.

2 Conceptual, Theoretical and Empirical Reviews

2.1 Conceptual Understanding of Health Poverty

Health poverty is occasioned not only by impoverishment, but also by the healthcare spending pattern of households. Some households spend sizable

proportion of their income to treat their illnesses and thereby, are left with too little for food and non-food expenditures. When this happens, such household is engaged in catastrophic health spending. It is pertinent to note that, any cost of healthcare, irrespective of its magnitude not borne directly by the household or person, is not considered cost of care, and cannot be catastrophic on a household. Healthcare spending is considered catastrophic when any household had to forgo part or reduce expenditures on food and non-food items in order to accommodate healthcare cost (Wyszewianski, 1986). According to Wyszewianski, there is yet no agreement on the proportion of what is to be known as household effective healthcare spending. But, Xu *et al.*, (2003) see effective healthcare spending as that portion of the household income that is left after the basic subsistence needs have been taken care of. To put it differently, food and non-food expenditures are very essential for households' survival, and once these are met, whatever is left can be spent on curative health, and this is what Xu *et al.*, called effective health spending.

From another perspective, catastrophic health spending is as a result of the large portion of households' out-of-pocket (OOP) spent on curative health out of the income earned. When this occurs, the household may slip into catastrophic health spending (Xu, 2005), which is health poverty. By implication, from available data, over 70 percent of Nigerians as at 2016 (WDI) spent catastrophically on healthcare, and are incidentally in health poverty since over 70 percent of their income were spent on OOP payment (FMOH, 2009). It, therefore, means that most Nigerians maybe impoverished, and are still not protected against excessive health spending. According to Wagstaff and van Doorslaer (2003), Xu (2005) and Limwattananon *et al.*, (2007), where households are not protected against any form of shock as a result of healthcare expenses, such households are bound to experience income loss if they are working individuals. It thus means that, there is possibility of households' health poverty being occasioned by catastrophic health spending. In another dimension, when households expend a big portion of their entire budget on curative healthcare services, very important aspects of the household basic needs are left uncovered. Most often these have negative implications on the households' living conditions (O'Donnell *et al.*, 2008).

There are two known approaches to this. The first approach sets the limit (i.e. threshold) in terms of proportionality of income. This method sets out-of-pocket (OOP) payments to be a fraction of household's income (Y). In other words, what is OOP to total household's income (OOP/Y). The limits as employed overtime varied from 2.5% to 15% (Buigut *et al.*, 2015). However, there have been divergent opinions on the use of the same threshold for both the poor and the rich households. This is because there will always be the advantage of ability to pay on the part of rich households. An indication that they are more likely to exceed the set limits (Wagstaff & van Doorslaer, 2003). This proportionality method reveals that the fraction of a household's income allowed to be spent as OOP over the years was 2.5 to 15 percent.

Another approach is based on ability-to-pay. This method of assessing what households spend on healthcare sees out-of-pocket payments as the ability-to-pay represented by (x). Therefore, $x = Y - \text{Sexp}$, (where Sexp is the subsistence spending, and it is the mean of households' food spending whose food spending share is in the 45th to 55th range) and Y is household's entire income (Buigut *et al.*, 2015). The computation of the ability to pay from the subsistence spending has been conflicting in literature. In order to go away from this conflicting situation, World Health Organisation (WHO) Report 2002, expresses ability to pay as the income left after the basic needs (subsistence) have been met. Therefore, in this approach, $x = Y - \text{Sexp}$, 45th/55th where Y is the household's income or consumption spending.

It is important to note that, once households' or individuals' healthcare spending surpasses the established threshold (like poverty level), catastrophic expenditure is established and such person or household is in health poverty. A person falls into poverty when he or she leaves below the established level or threshold.

2.2 Theoretical Review

Just as we have considered the findings or outcomes of related studies under conceptual reviews, we shall also be looking at some theories that can underpin poverty as a concept. Theories such as individual deficiencies, economic and political distortions, and the likes are briefly considered below.

Individual Deficiencies Theory

The theory is of the view that, individuals are responsible for their poverty situation. In general, individual deficiencies theory opines that poverty can be avoided by working harder and making better choices. The proponents of this theory also contend that the poor lack the basic incentives to improving on their own conditions because of their over dependency on the welfare systems. The theory has received a lot of attention and has been cited in writings on how to improve one's well-being through well planned goals. However, the theory has also been criticised on so many grounds, especially on the premise that, it is a lame excuse for social inequality (Fischer *et al.*, 1996).

Culture of Poverty Theory

The culture of poverty theory holds that, it is the characteristics of the poor, their value systems and culture which bring about poverty in some communities. According to Bradshaw (2006), poverty is created by transmitting to generations some set of maladaptive beliefs, values and skills that are socially generated but are individually held. The theory holds that the poor should be held responsible for what befalls them. But, there are questions over their explanation of blaming the poor for their predicaments, as if to imply that if the poor would change their values, then poverty would cease.

Economic and Political Distortions

This theory associated poverty with economic, political and social system that enables individuals to have limited opportunities and resources with which to achieve income and well-being (Bradshaw, 2006). The proponents submit that the economic system is structured in such a way that the poor is always left behind irrespective of how competent they may be. The theory equally contends that poverty is as a result of the inability of the poor to influence and take advantage of the political system. Studies have revealed that the poor are less involved in political discussions, and their interests are more vulnerable in the political process and therefore, are always excluded when it matters most.

The Capability Approach

This approach was originated by Sen in 1982 in his work titled, "Equality of What?" The focus of the approach as propounded by Sen is that what people are able to do and be, as opposed to what they have, or how they feel. That, in

analysing well-being, attention should be focused on ‘ends’, not ‘means to ends.’ What Sen is trying to pass across is that, focus should be shifted from ‘the means of living’, such as income, to the ‘actual opportunities a person has’, such as functioning and capability. According to Sen, functioning are the various things an individual succeeds in doing or becoming, like being healthy, partaking in life society and many others. Capability thus, refers to any person’s freedom to achieve healthy living, and the likes (that is, functioning).

According to Hick (2012), the capability approach by Sen has seen poverty as a deprivation of certain basic capabilities, that all these vary from such elementary physical ones as being well nourished, being adequately clothed and sheltered, avoiding preventable morbidity, and so forth, to more complex social achievements such as taking part in the life of the community, being able to appear in public without shame, and so on. What this mean is that, using income of an individual to determine whether he or she is poor or not is not a sufficient measure for poverty. An individual could be rich in terms of having a lot of money in his bank accounts. However, he could have health challenges that could incapacitate functioning in the society.

2.3 Empirical Literatures

Having been able to associate health poverty with catastrophic health spending, it therefore shows that, health poverty can be occasioned by catastrophic expenditure. Households may be poor health wise, if they are impoverished. At impoverished state, most households may not be able to finance their health expenses, because, any amount or proportion of their income expended on medical care could be catastrophic. If this continues, the health of such household or person is likely to deteriorate. Catastrophic health spending is as a result of the share of out-of-pocket costs surpassing the limit set as a fraction of the entire household expenditures. Studies such as Wyszewianski, (1986); Wagstaff and van Doorslaer, (2003); Xu *et al.*, (2003) and others have tried to establish an acceptable limit (threshold).

According to Akinkugbe *et al.*, (2012), in spite of the arbitrariness of the spending limit for health care spending by households, the seemly acceptable threshold is 10 percent. The idea behind this is that, beyond this limit (i.e. 10

percent), households are no longer ready to sacrifice other basic needs, forgo assets or compromise their living standard (Russell, 2004). Still considering scholars opinions on the fraction of households' curative health spending to the entire consumption expenses, World Health Organisation (WHO, 2000) opines that if the ratio of households' healthcare spending to total consumption expenditure is more than half, it is most likely that those households will fall into catastrophic health spending, and they could be impoverished. By inference, WHO Report allows for a 50 percent threshold, that, beyond the 50% threshold, households' healthcare spending could be considered catastrophic. However, Kawabata *et al.*, (2002) proposition varied slightly from what WHO opines. Kawabata and others suggest that households' health expenditures should only be considered catastrophic the moment it surpasses 40 percent of the households' ability to pay. Meanwhile, the ability to pay has been established to be households' income less the subsistence expenditures. Subsistence expenditures are expenses on basic households' needs (such as food and non-food items) that would guarantee households survival.

In line with this curative health spending limit of 40 percent, Xu *et al.*, (2003) did a study of 59 nations employing cross-sectional data to evaluate the incidence and reasons for catastrophic health expense. The outcome of the investigation revealed the percentage of households that incur catastrophic health expenses in those nations: Brazil - 10.3 percent; Costa Rica - 0.1 percent; Mexico – 1.5 percent; Nicaragua – 2.1 percent; Panama – 2.4 percent; Paraguay – 3.5 percent and 3.2 percent for Peru. In other words, the study shows that, in Brazil, about 10.3 percent of the citizens were engaged in catastrophic expenditure and were health poor while Costa Rica had the least number of people involved in catastrophic health spending. Still continuing on limit (threshold) setting, in a study conducted in six urban slums of Kenya by Buigut *et al.*, (2015), using 10 to 30 percent thresholds, the findings showed that the percentage of households facing catastrophic health spending differs greatly between 1.52 and 28.38 percent. The study also found that the number of adult working in households and number of people who belonged to any social safety net reduced catastrophic health spending. On the contrary, seeking curative health either at the private or public medical centre pushes up the risk of engaging in catastrophic health spending in Kenya. From this

finding, it is evident that, cost of seeking medical care was very high in Kenya, and the non-patronage of medical care may be as result of citizens' living conditions.

In the same vein, Chuma and Maina (2012) carry out a study to determine the intensity and incidence of catastrophic spending in Kenya. Data drawn from nationally representative health expenditure and utilisation survey were estimated utilising the standard data analytical techniques with 10 to 40 percent thresholds. The investigation found that on annual basis, over one tenth of households' budgets in Kenya are expended on medical care. The burden of out-of-pocket payments is highest among the poor. The poorest of the households expended one third of their income on curative health payments annually compared with the richest households 8 percent. Medical care expenses have pushed about 1.48 million people below the national poverty line in Kenya. On thresholds used, at 10 percent, 15.5% of households in Kenya were engaged in catastrophic spending. However, with 40 percent, the percentage of the people surveyed who were in catastrophic spending dropped to 4.6.

Akinkugbe *et al.*, (2012) did a primary study of Botswana and Lesotho on health financing and catastrophic health spending. The study used logit regression to analyse data drawn from households' survey of both nations between 2002 and 2003. The outcomes reveal that 11 and 7 percent of households at 20 and 40 percent thresholds were engaged in catastrophic health spending in Botswana and out-of-pocket health payment share was 0.93 percent as at the survey period. In Lesotho, at 20 and 40 percent thresholds, 3.22 and 1.25 percent of the households were involved in catastrophic health expenditure with 1.34 percent as share of out-of-pocket payment to monthly expenditure. In Botswana, gender and education status of households determined the risk of falling into catastrophic spending, while in Lesotho, it was the number of elderly in a household. Comparatively, more people were in the health poverty circle in Botswana than in Lesotho as at the study period.

In like manner, Kimani (2015) conducts a study in Kenya looking at the incidence and intensity of catastrophic expenditures and impoverishment. The study was similar to Chuma and Maina (2012). The investigation used data

from two nationally representative household health expenditure and utilisation surveys conducted in 2003 and 2007 respectively. In terms of approach, it used descriptive analysis. The findings of the investigation indicated that, 10.3 percent of households were engaged in catastrophic health spending, and 3.5 percent were impoverished as a result of cost of medical care in 2003. Meanwhile, in 2007, 11.1 percent of households were involved in catastrophic health expenses, with 4 percent of the population surveyed impoverished. 20 percent of the poorest households were seriously burdened by catastrophic health expenditures in 2003 and 2007. Roughly 2.5 million Kenyans were pushed further down the national poverty limit in 2007 because of medical services cost.

Having reviewed related studies, it is evident that thresholds used in various studies varied with researchers. However, none of the study exceeded the maximum of threshold of 40 percent. Thus, as the thresholds were adjusted downward, the number of households who experienced catastrophic health spending reduced.

3.0 Theoretical Framework and Research Methodology

Theoretical Framework

Having reviewed several studies and few theories associated with poverty, it is evident that none (of these theories) is able to explain the interplay between healthcare spending and non-food/or food expenditure. Consequent upon this, the study is therefore underpinned by the ‘indifference curve’, analysis, a tool of analysis in consumers’ behaviour theory.

Basically, when examining the issue of consumer behaviour in relation to commodity consumption, three approaches readily come to mind, the cardinal, ordinal and the revealed preference. However, the study is situated in ordinal approach using ‘indifference curve analysis.’ This is on the trade-off that exists between these economic good (health expenditure and non-food/or food expenditure). It is important to note that, households’ consumption of good or service can be measured using the amount of money spent. The indifference curve analysis is used by the ordinalist to explain households’ or individuals’ behaviour as regard their preference for combination of two goods or services,

in this case, healthcare expenditure and non-food/food expenditure. An indifference curve is convex, smooth and continuous which is an indication of two goods yielding some level of satisfaction to the consumer. Given the income of the consumer, the skill of scale of preference which has both 'indifference' and 'preference' is employed by the consumer to decide on the level of demand.

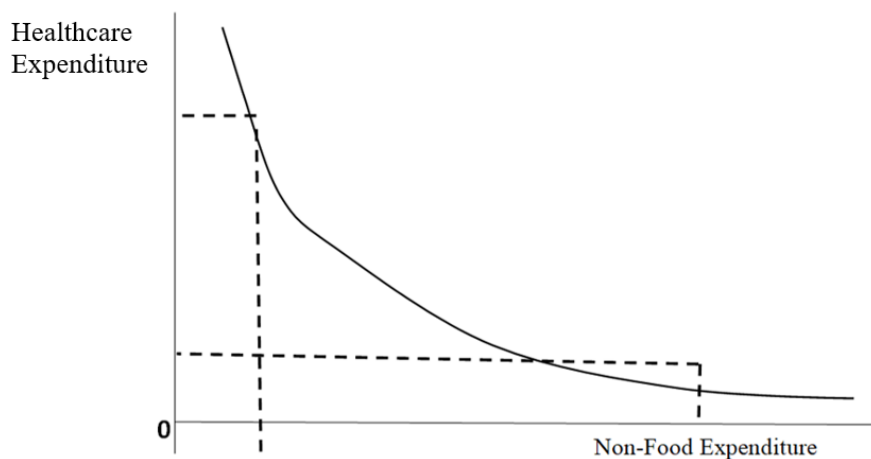


Fig 3.1: Indifference Curve Showing Trade-off between Healthcare Expenditure and Non-food Expenditure

From the diagram in Figure 3.1, some basic properties of indifference curve are evident. These are convexity of the curve to origin, negativity of its slope and the trade-off episode between the two goods (healthcare expenditure and non-food/food expenditure), that brings about the concept of 'marginal rate of substitution.' This concept explains the trade-off between healthcare expenditure and non-food/or food expenditure of households. Marginal rate of substitution is the rate of trade-off between two goods that are preferred similarly. In other words, between consumption of health and non-food/food items by households, measured in terms of money expended, a sort of trade-off takes place to achieve a level of satisfaction. As this occurs, it results to marginal rate of substituting a good expenditure for the other, or vice versa.

However, as the trade-off continues between healthcare spending and non-food/food expenditure, according to Hicks (1934) the trade-off will lead to

increase in one good and reduction in the other. On trying to balance the total effect of the trade-off, it often results to negativity (diminishing effect) which affects the household or individual. Therefore, where the trade-off favour healthcare spending against non-food (that is, increasing share of healthcare spending over non-food/food expenditure), the resultant effect on the household will be catastrophic spending, hence, health poverty.

Research Methodology

Research Design

Descriptive survey design was employed for the field survey. The technique avail the researcher, the opportunity to administer questionnaires to each respondent in their locations, ask questions about the survey and document the response of the respondents.

Study Area and Sampling Technique

The study area is Lagos State, one of the most heterogeneous states, with multi-ethnic groups in the country. With an estimated population of 22 million people, the state is considered the second most populous in Nigeria (See Olofinji, 2015), and remains the commercial hub of the nation (Nwagwu & Oni, 2015). The State comprises twenty (20) Local Government Areas (LGAs), which includes: Agege, Ajeromi-Ifelodun, Alimosho, Amuwo-Odofin, Apapa, Badagry, Eti-Osa, Epe, Ibeju-Lekki, Ifako-Ijaiye, Ikeja, Ikorodu, Kosofe, Lagos Island, Lagos Mainland, Mushin, Ojo, Oshodi-Isolo, Shomolu and Surulere. Of which, ten LGAs (Alimosho, Ibeju-Lekki, Ikeja, Ikorodu, Kosofe, Lagos Island, Lagos Mainland, Mushin, Ojo and Shomolu) were purposively selected based on data accessibility from respondents.

Population, Sample Size Determination and Research Instrument

The study population includes: all residents in the selected LGAs. The sample size is determined using Krejcie and Morgan (1970) and Bartlett, Kotrlik and Higgins (2001) tables for sample size determination. A sample size of 384 is appropriate for a population greater than 10, 000 (Bartlett *et al.*, 2001). For a more robust empirical analysis and outcome, the sample size is given as 500 respondents. In each LGA, 50 respondents are drawn using convenient

sampling technique. Each respondent is within the age group (18 - 65 years), as classified by the ILO Report (2015) as the economic active population of a country. The researchers employed 10 undergraduate students of UNILAG to assist in administering the tools to all respondents in their respective selected LGAs. The data was collected by means of structured questionnaires. The closed-ended questions were mostly adopted for the study in order to cover a wide range of geographical area.

Analytical Framework and Method of Data Analysis

In this sub-section, a detailed analysis of the methods engaged to meet the objectives of the study are discussed. Recall that the focus of the study is to determine health poverty incidence and intensity (severity) in Lagos State. In other words, we considered the Catastrophic Expenditure Headcount, Catastrophic Expenditure Overshoot and the Mean Positive Overshoot among the people.

Catastrophic Expenditure Headcount

It measures the proportion of the studied population that is counted as being in health poverty or is engaged in catastrophic healthcare spending, often denoted by *HC*. Empirically, it is,

$$HC = \frac{1}{N} \sum_{i=1}^N E \quad 1$$

Where: *N* is the sample size, *E* is an indicator function that takes on the value of 1, if catastrophic expenditure is greater than budget share threshold (5% to 40%), and is 0 if otherwise. It is pertinent to note that, the *HC* only reveals the proportion of the individual or household whose out-of-payment (OOP) on curative healthcare exceed the threshold, that is, the incidence. It does not however, indicate the exact proportion with which it overshoots the threshold. It becomes imperative to determine what is known as catastrophic payment overshoot denoted by (*O*).

Catastrophic Payment Overshoot

By this concept, we understand the precise proportion with which an individual or a household overshoots the threshold (i.e. budget share or poverty line). It gives the exact measure of the intensity of catastrophic OOP

or the depth or extent of health poor in a given society. The value of catastrophic payment overshoot represented by 'O' is estimated thus:

$$O_i = E_i \left(T_i / X_i - Z \right) \quad 2$$

Where T_i is health expenditure of individual i or household i , X_i is consumption expenditure (food or non-food) and Z is the threshold budget share. Therefore, following this estimation, the mean catastrophic payment overshoot is,

$$O = \frac{1}{N} \sum_{i=1}^N O \quad 3$$

The mean of healthcare expenditure overshoot divided by the headcount gives the intensity (severity) of the catastrophic expenditure. Therefore,

$$MPO = \frac{O}{HC} \quad 4$$

Catastrophic Expenditure Threshold

In this study, we applied the principle of poverty to health ratio to enable us determine when households are in poverty (health poverty). Therefore, unlike the use of poverty line to ascertain poverty gap and severity in poverty related issues, in health poverty, catastrophic health expenditure holds sway. As noted earlier, catastrophic expenditure is the share of healthcare expenditure of households to food or non-food expenditures. Various thresholds which range from 5% to as high as 40% have been used (see Xu *et al.*, 2003). Threshold in this case is synonymous with the famous poverty line. In this study, we adopted 5% to 40% threshold in line with Xu *et al.*, (2003) and O'Donnell *et al.*, (2008). These allow comparison of incidence and severity of health poverty at various thresholds. According to Xu *et al.*, (2003), catastrophic healthcare spending occurs when the share of out-of-pocket spending to non-food spending in a household falls between 5 to 40% (depending on the threshold used). In other words, individuals or households fall in poverty (health poverty) if they expend between 5 to 40% and above as their non-food to finance curative healthcare expenditure. Before the health count ratios and

overshoot ratio is discussed, descriptive statistics is employed on the data to determine the mean values of household income, food spending, non-food expenditure, etc., (See Table 1.1).

4.1 Result Presentation and Interpretation

The Table 1.1, present selected demographic, health and socioeconomic characteristics of households.

Table 1.1: Selected Characteristics of Households (Values are in Naira) Except Catastrophic Spending

Head of Household	N	HH Income	HH Food Expense	HH Health Expense	HH Non-food Expense	Catastrophic Effect Using Non-food Expenditure	Catastrophic Effect Using Total Consumption expenditure
Male	250	100004.	38238.3	6880.19	54957.54	17.2008	8.4673
Female	96	80198.23	28093.96	6396	45989.54	18.6579	9.171
HSIZE							
1 – 2	29	98069.36	38207.21	5482.897	54379.26	14.4378	7.0775
3 – 4	99	93858.99	35661.93	6000.131	52231.38	16.7315	8.6125
5 – 6	135	93467.03	34481.74	6777.978	52273.97	17.0855	7.7893
7 – 8	61	100623.3	35721.6	8590.443	56712.98	21.9587	10.8053
9 & Above	22	82182.18	35636.64	6454.75	40454.48	16.8273	10.394
EDU HEAD							
No Education	8	65250.19	30875.19	2750.063	31624.94	6.7703	3.6652
Primary Education	20	63000.25	20700.18	2450.025	39850.05	8.7845	4.0278
Secondary Education	70	70443.16	23207.29	5128.714	43635.74	14.8196	8.1983
Dipl./NCE/OND	104	83375.33	32192.58	6855.962	44552.77	22.9115	10.9422
B.Sc./HND	102	115941.6	41662.12	8363	65077.41	17.3368	8.7511
M.Sc.	30	106500.4	43033.67	6266.8	57199.93	12.818	6.5176
Ph.D.	10	186300.8	95250.75	12000.35	79049.7	26.5604	7.3459
Others	2	216001	65000.5	15000.5	136000	11.4155	6.9446
House Type							
Tenement	88	76807.12	26170.65	5238.767	45477.25	17.0399	7.781

Readings in UN-Sustainable Development Goals and the Lagos Region

Mini Flat	86	77965.41	25157.14	6011.779	46470.95	17.423	10.153
2 Bedroom	60	101150.4	39642.04	7950.267	53756.59	19.6443	9.7551
3 Bedroom	78	121038.9	48019.65	8192.558	65519.06	16.21	7.8765
Duplex	28	104464.8	48161.07	7000.179	49303.52	19.8434	7.2532
Others	6	133500.	52917.0	7333.41	73250.1	15.8008	6.0957
Occupation Head							
Govt. Worker	83	103120.	39229.2	6891.7	56981.8	18.3209	8.0099
Private Employed	55	92454.9	36954.9	7127.49	47489.0	19.701	8.883
Petty Trader	99	96263.0	35874.0	7091.10	54136.3	17.606	9.421
Self Employed	44	87136.6	30511.6	5591.04	50897.6	17.564	9.105
NGO Worker	22	99182.2	37954.8	6909.27	55136.3	16.268	9.2454
Family Business	19	84316.1	25710.7	7210.76	51394.6	15.896	7.1233
Unemployed	17	75176.7	30000.2	4353.03	40823.5	10.356	6.7903
Others	7	90000.3	34357.4	8428.85	47214.1	19.316	8.0469

The descriptive statistics result suggested that only 346 (69.2%), of the 500 questionnaires retrieved from the ten Local Government Areas (LGAs) were deemed usable for the analysis. See Table 1, for selected social and economic indicators of households in the study. Also, included is the mean income, food expenditure, health expenditure, non-food expenditure and catastrophic health expenditure (%) of households in the selected Local Government Areas of Lagos State. The outcome suggested that 72% (250 respondents) were male head of households while 28% were female head of households. Mean income, food expenditure, health expenditure and non-food expenditure were higher in male head of household when compared with female household head. However, female household head experienced greater catastrophic health expenditure (18.66 %) than their male counterpart.

In sum, catastrophic health expenditure is higher among the following subgroups: private employees, occupants/residents in duplex, Dipl./NCE/OND and Ph.D. degree holders and household size of 7 – 8 persons.

Table 1.2: Showing Incidence and Intensity of Health Poverty Using Share of Healthcare Spending to Total and Non-food Spending

Catastrophic Spending Measures	Thresholds (budget shares)				
Healthcare spending as share of Total spending	5%	10%	15%	20%	40%
Head Count (H)	56.4	22.3	10.98	7.80	0.3
Overshoot (O)	3.6	1.83	0.95	0.55	0.04
Mean Positive Overshoot (MPO)	8.34	8.2	8.68	7.07	12.63
Healthcare spending as share of Non-food spending	5%	10%	15%	20%	40%
Head Count (H)	63.3	46.82	35.3	25.43	7.80
Overshoot (O)	10.12	7.44	5.30	3.80	1.22
Mean Positive Overshoot (MPO)	15.98	15.88	15.02	14.95	15.63

Source: Author's computation 2018

Table 5.2 as displaced shows the incidence and severity (i.e. intensity) of health poverty in Lagos State. This is the essence of this study. That is, to estimate the depth and intensity of health poverty among people living in Lagos State. From inception, the study has related health poverty to catastrophic healthcare spending. The estimation of households' catastrophic spending from healthcare would establish if a particular household is living in poverty (health poverty) or not. Catastrophic healthcare spending has been defined as the share of curative health spending to either total household expenditure or non-food expenditure, using various threshold budget shares. This study used thresholds of 5% to 40%.

Therefore, from our estimation presented in Table 2, as the threshold increased from 5% to 40% of total expenditure, the incidence of catastrophic healthcare spending (that is, health poverty) denoted by *H* declines from 56.4% to 0.3%, and the mean overshoot represented by *O* falls from 3.6% to 0.04%. However, the values of the mean positive overshoot of those individuals who exceeded the threshold are expected not to decline unlike the values of incidence and the severity (intensity). It, therefore, means that those who overshoot the threshold by 5% of total expenditure on curative health, on the average expended 13.34% (that is, 5% + 8.34%). Also, for those who have overshoot by 40%, on the average spent 52.63%.

In the same vein, utilising the same threshold values to evaluate the depth and intensity of health poverty, using catastrophic curative health expenditure in respect to non-food spending, the outcomes follow the pattern of the former, except with variations in values. For instance, the incidence of health poverty drops from 63.3% to 7.80% as the threshold increased (that is, increased to 40% from 5%), and the overshoot drops from 10.12% to 1.22%. However, the values of the mean positive overshoot of those persons who exceeded the threshold are expected not to decline unlike the values of incidence and the severity (intensity). It, therefore, means that those who overshoot the threshold by 5% of total expenditure on curative health, on the average expended 20.98%. On the other hand, that is individuals who overshoot by 40%, on the average expended 55.63%.

5.0 Conclusion, Policy Implications and Recommendations

The essence of this study is to determine the incidence (that is depth) and the severity of health poverty in Lagos State. However, 10 LGAs were purposefully selected from the twenty LGAs in the studied areas. Having elicited responses from the respondents via a research instrument (structured questionnaires), the study's finding is fundamental and will be interesting to policy maker on health financing. In all, the findings reveal the existence of health poverty and its magnitudes in Lagos State with varied thresholds. It is instructive to know that, as threshold increased (that is, from 5 to 10%, 10 to 15%, etc.), the proportion of persons who crept into health poverty declines. In other words, the percentages of incidence and severity of health poverty reduced. However, findings have shown that the proportions of incidence and severity of health poverty are function of thresholds used. This is very vital to policy makers. It means that, whatever policy put in place as regard healthcare funding, such as National Health Insurance Scheme (NHIS), if well implemented, this will influence (reduce) health poverty positively in Lagos state.

Therefore, since the share of healthcare expenses to either total expenditure or non-food/food expenditure determines if households or persons are health poor, or not, thus, the policy implication of this is that, there is need to protect Lagosian from excessive healthcare spending. One possible way to do this is to introduce health insurance scheme in the state. It will bring about functional healthcare financing, and will ultimately reduce the burden of OOP on the

people. Another policy implication of this is that, government should pursue agricultural policies and programmes that would make Lagos food secured. By so doing, the people will have access to afford food, and consume the minimum required calories and nutrients for the body to function effectively thereby reducing ill-health, and reducing healthcare spending. Lastly, there is need to educate the citizens on the merits of regular medical check-up to prevent exacerbating health conditions.

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CHAPTER

17

FERTILITY, FEMALE EDUCATION AND FEMALE LABOUR FORCE PARTICIPATION IN NIGERIA (1980-2016)

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Abstract

Female education cannot be overemphasised as far as development is concerned. No wonder that Gender equality and Quality education are part of the Sustainable Development Goals (SDGs) set up by the United Nations. However, the level at which women give birth could be seen as a stumbling block to achieving female education and consequently female participation in the labour market. Women's participation is very important in order to achieve a meaningful development especially in a developing country like Nigeria. Therefore, this study seeks to investigate the impact of fertility rate and female schooling on the female labour force participation in Nigeria. The objectives of the study are to; (a) assess the trends of fertility rate and female education in Nigeria, and (b) examine the impact of fertility and female education on the female labour force participation rate in Nigeria. Secondary data sourced from the World Development Indicators (WDI) were used for the study. Line graphs are used to assess the trend of fertility and female education in Nigeria. In order to examine the effects of fertility and female education on female labour force participation, Descriptive statistics were used and the unit root test was conducted to test for the time series stationarity. Non-Linear Autoregressive Distributed Lag (NARDL) modelling technique was used to estimate the variables. In the short run, fertility rate, female primary and secondary school enrolments and GDP per capita were positive and

significant at 5%. But unemployment had a negative and significant relationship with female labour force participation. Also, in the long run, fertility rate, female primary school enrolment, GDP per capita had positive relationship with the female labour force partition while secondary school enrolment and unemployment were negative and significant at 5%. The results from the study implied that government should adopt appropriate policy that will improve educational enrolment for females. There is need for the Nigerian government to invest more in the girl-child education. Also, the government can support women who are self-employed through micro-financing. Government should ensure that time use for labour activities is more flexible and are compatible with child care, especially with women working in the formal sector. Conclusively, female education is very important in order to have increase in the participation of women in the labour force and, high fertility rate is not a threat to female participation in the Nigerian labour force.

1. Introduction

The development of a country economically, depends largely on the participation of its labour force. The female labour force participation of a country is very crucial to the development of a nation and in particular a developing nation like Nigeria. Nigeria has witnessed an increase in the female labour force participation rate over the years. Though, the increase has not been substantial. For instance, in 1990 the female labour force participation rate was about 47% while in 2017 it was about 50% (WDI, 2017). Labour force refers to the share of the working age population who are either in a job or actively looking for one (Ozsoy and Atlama, 2010). Female labour force participation rate indicates the ratio of the female labour force to the female population 15 years of age and over.

In the world's population, women account for more than half but perform two-thirds of the hours work, (Forgha and Mbella, 2016). Generally, all over the world, women receive low income. According to ILO (2013), women have one-tenth of the world's income and have less than one hundredth of the world's property registered in their names. A large percentage of women are in the poverty group especially in the developing countries. Women

participate both in the formal and informal sector. (Nagac and Nuhu,2016). However, high female participation in the labour market had been judged to increase the relative economic and social position of women and also bringing about increased utilisation of human potential for economic growth and development (Kizihrmak, 2005).

Education is critical to labour participation and productivity. It serves dual purpose of increasing both empowerment and economic growth. Investing in education will not only increase the rate at which female adopts new innovations but also influence their income-generating activities (Olowa and Adeoti, 2014). Studies have showed that when women are educated, it increases their chance of participating fully in the labour market (Kennedy and Hedley, 2003 and Ince, 2010). Ince (2010) stated that female education has a greater impact on the well-being of the families and societies. This is because, firstly, female education increases females' productivity by rising output in economic activities. Secondly, it increases children's education profile which results in better educated people.

Fertility choices are also interrelated with labour supply decisions. (Sheran, 2006). To explain fertility decisions, Becker (1993) refers to the high value of time which increases the cost of children, thus diminishing the demand for large families and reducing fertility. Some studies have showed that there is no consensus yet on the relationship between fertility and female labour force participation rate. For instance, Adebisi and Onifade (2014) stated that while some studies found out that higher wages should increase the opportunity costs of childbearing and reduce fertility, (Becker 1993 and Oppenheimer, 1994) and other studies have revealed a positive impact of female employment on the transition rate to more births. The negative effect indicates a substitution effect while a positive effect indicates an income effect. Also, some held an indifferent view. For instance, Younger (2006) opined that the communal lifestyle witnessed in many African countries will encourage women to give birth and still combine schooling and working together because the neighbours or the extended families can take care of the child even when the mother is not around.

Nonetheless, there are labour market constraints that women face which had led to the low female participation in the labour market. These constraints include child birth, child care and lack of necessary education. Despite a slight increase in the female labour force participation rate in Nigeria, male labour force participation rate is higher. This paper therefore tries to contribute to the existing literature by exploring the impacts of fertility and education (female schooling and literacy level) in the context of female labour force participation rate.

At this point, it is pertinent to raise the following questions; what are the levels of female schooling and fertility in Nigeria? Do fertility rates and the level of female education have significant impact on the female labour force participation over the years? This study will provide answers to the above questions by analysing the trend of fertility rate and female education in Nigeria. This is with a view to examining the effects of female education and fertility and the female labour force participation rate. This study makes use of the nonlinear auto-regressive distributed lag (NARDL) modelling approach. This approach will correct for endogeneity and serial correlation.

2. Literature Review

Some theories have linked fertility education and female labour force participation rate. For instance, the human capital model suggests that female labour force participation is influenced by women's productive opportunities as reflected by their level of education, their non-human capital assets, the presence of children and/or the child survival rate and their social environment. (Sackey, 2005). The human capital theory suggests that an increase in the level of woman's education is expected to have a positive effect on labour force participation while a low level of education will bring about a negative effect (Olowa and Adeoti, 2014).

Gary Becker considered the family to be the most fundamental societal institution in the society in his theory called the new household economic theory. This theory was originally adopted to describe resource allocations, decision making and utility maximisation processes of households in the USA, Japan and Israel. It was later that the theory was also applied to developing countries and particularly to the analysis of agricultural

households. The theory of household economics is closely related to gender issues particularly the work and status of women within the family and the household. Becker also considered the rational choice approach which uses a framework to combine maximising behaviour with the analysis of marriage and divorce markets, division of labour and investment in children (Olowa and Adeoti, 2014).

Aromolaran (2004) investigated on the effect of female schooling on the female labour force participation in Nigeria. He used the Nigerian General household survey data. He found a non-linear relationship between women's labour market participation and schooling. He concluded that additional years of postsecondary education may increase wage market participation among women in Nigeria while education enables women to respond to opportunities, to challenge their traditional roles and to change their life style. Rindfuss et al., (1991) opined that women who work for pay have fewer children (on average than women who do not and that mothers spend less time in paid employment on average) than childless women. In most African countries, the role of the woman was known to be in the kitchen and also for childbearing.

Fadayomi and Olurinola (2014) examined the influence of household structure on labour market participation in Nigeria using the data from the Nigerian Labour Market Survey published by the defunct National Manpower Board. Using both descriptive and logit regression to analyse the data, they found that household structure is an important factor in determining the participation of women in the labour force.

Nagac and Nuhu (2016) examined the effect of education on female labour force participation in Nigeria using both descriptive statistics and binary logistics regression. Their study revealed a U-shaped relationship between education and female labour force participation rate. Olowa and Adeoti (2014) investigated on the effect of education status of women on their labour market participation in rural areas, in Nigeria. They made use of the 2009/2010 Nigerian Living Standard Survey data. They also found a positive and significant effect of educational attainment on female labour force participation in rural areas of Nigeria.

Iweagu, Yuni, Nwokolo and Bulus (2015), studied the determinants of female labour force participation in Nigeria. They employed the logistic regression on a household survey data of employment. Their study revealed that marital status, religion and poverty rate was significant in determining the female labour force participation rate in the rural areas. While in the urban sector, age and literacy rate were significant in determining the female labour force participation rate.

Baah-Baah-Boateng, Nketah-Amponsah and Frempong (2013), used the logistic regression and they found that fertility of Ghanaian women has significant and increasing effect on their labour market participation. They found a positive effect of education on female labour force participation in Ghana especially in the urban centres.

Most of the studies reviewed above revealed that, the studies made use of primary data. However, our study is making use of secondary data in order to examine the contributions of fertility and female education to female labour force participation in Nigeria. Furthermore, this study is different from other studies as it employs different approach from previous studies. Specifically, this study utilises the nonlinear auto-regressive distributed lag (NARDL) modelling approach to co-integration in terms of methodology. One advantage of the approach is that it can be applied regardless of whether variables have a unit root or are covariance stationary. It also enables to capture asymmetries in the female labour force participation, education and fertility not in the long run but in the short run as well. Furthermore, the method corrects for endogeneity and serial correlation and allows for possible asymmetric (i.e. nonlinear) adjustments of female labour force participation rate to movements in other variables. In other words, increases and decreases in other variables are allowed to affect female labour force participation rate differently.

3. Research Methods

Earlier studies on fertility, education and female labour force participation adopted various models, most of which in the recent times employed the use of Probit models, Logit models, which are mostly based on primary data or micro data set from household survey data. This study makes use of secondary data which were sourced from World Development Indicator, published by

the World Bank annual data covering the period from 1980 to 2016. The Female Labour Force Participation, Fertility Rate, GDP per capita, education and literacy level proxied by Female Primary School Enrolment, Female Secondary School Enrolment and Unemployment rate were the variables of interest.

In order to assess the trend of fertility, education and female labour force participation rate, graphs were used and the Non-Linear Autoregressive Distributed Lag (NARDL) modelling technique was adopted in order to examine the relationship among the fertility rate, education and female labour force participation rate in Nigeria. Consequently, both the Augmented Dickey-Fuller (ADF) (Dickey & Fuller, 1979, 1981) and Phillips-Perron (PP) (1988) unit root tests and correlation matrix were employed to determine the order of integration of the series and level of the correlation among the series in this study.

This study further employed and modified the model of Boateng & Frempong (2013) using the Human capital model and theory to estimate the effect and the relationship among fertility, education and female labour force participation rate in Nigeria. We specify the human capital model and the models of Boateng & Frempong (2013) as follows in equation 1:

$$\ln FLFPR_t = \alpha_0 + \alpha_1 \ln HDI_t + \alpha_2 \ln GDPPCI_t + \varepsilon_t \dots\dots\dots (1).$$

HDI stands for vector of human capital development variables (school enrolment, unemployment and fertility).

In linear form, we adopted and re-modified equation 1 as follows:

$$\begin{aligned} \ln FLFPR_t = & \alpha_0 + \alpha_1 \ln FPSE_t^+ + \alpha_2 \ln FPSE_t^- + \alpha_3 \ln FSSE_t^+ + \\ & \alpha_4 \ln FSSE_t^- + \alpha_5 \ln FER_t^+ + \alpha_6 \ln FER_t^- + \alpha_7 \ln GDPK_t + \\ & \alpha_8 \ln UNEM_t + \mu_t \dots\dots\dots (2). \end{aligned}$$

Where α_0 = Constant, α_{1-8} = Coefficients and vectors of long run parameters to be estimated μ_t = Error term.

In (2), $FPSE_t^+$ and $FPSE_t^-$ are partial sums of positive and negative changes in $FPSE_t$. Also, $FSSE_t^+$ and $FSSE_t^-$ are partial sums of positive and negative

changes in $FSSE_t$, FER_t^+ and FER_t^- are partial sums of positive and negative changes in FER_t .

Since we have hypothesised log-linear functional form between the variables given in equation (2), we further performed the NARDL bounds F (or Wald) test for examining evidence for long run relationship. The NARDL bound testing approach for co-integration can be written as below (Pesaran *et al.*, 2001):

$$\Delta \ln FLFPR_t = \alpha_1 + \sum_{i=0}^p \beta_i \Delta \ln FLFPR_{t-i} + \sum_{i=0}^p \pi_i \Delta \ln FPSE_t + \sum_{i=0}^p \theta_i \Delta \ln FSSE_{t-i} + \sum_{i=0}^p \delta_i \Delta \ln FER_{t-i} + \sum_{i=0}^p \gamma_i \Delta \ln GDPK_{t-i} + \sum_{i=0}^p \sigma_i \Delta \ln UNEM_{t-i} + \mu_t \dots \dots \dots (3).$$

Where μ_t stands for the error correction term and Δ is the first difference operator.

- $\ln FLFPR_t$ = The natural logarithm of female labour force participation rate.
- $\ln UNEM_t$ = The natural logarithm of unemployment rate over time.
- $\ln FPSE_t$ = The natural logarithm of female primary school enrolment.
- $\ln FSSE_t$ = The natural logarithm of female secondary school enrolment.
- $\ln FER_t$ = The natural logarithm of fertility rate.
- $\ln GDPK_t$ = The natural logarithm of gross domestic product per capita.
- β_i = Coefficient of female labour force participation rate. σ_i = Coefficient of unemployment rate.
- π_i = Coefficient of female primary school enrolment.
- θ_i = Coefficient of female secondary school enrolment.
- γ_i = Coefficient of GDP capita δ_i = Coefficient of fertility rate.

4. Analysis, Results and Discussions

To start with, trends of both fertility rate and school enrolment are presented below.

4.1 Trends of Fertility Rate and Female School Enrolments in Nigeria

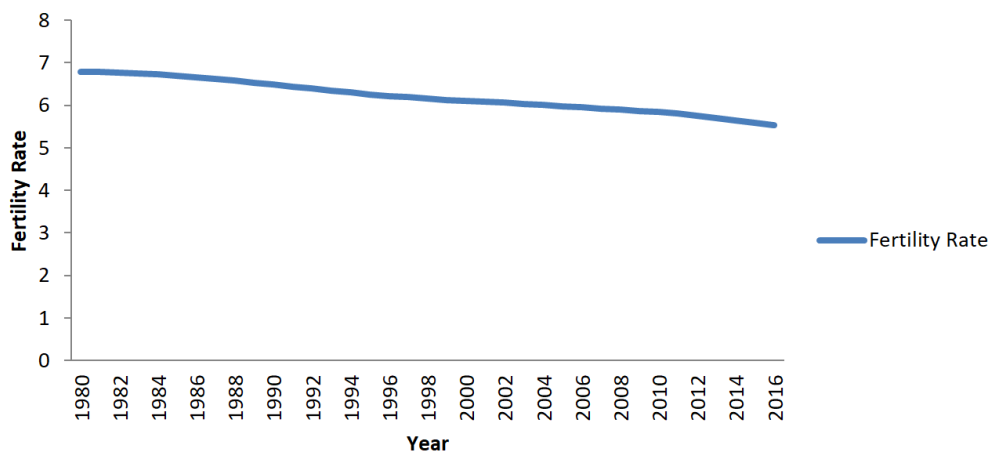


Figure 1: Fertility Rate in Nigeria (1980-2016)

Source: Authors' Computation

Fertility rate in Nigeria, covering the study period is presented in Table 1 above. It can be gathered that the fertility rate in Nigeria over the years has been declining but the decline is not significant. In 1980, the fertility rate was about 6.8 and in 1990 it was about 6.5. In 2000, the fertility rate was about 6.1, while after 10 years, (2010) it was just 5.9 and in 2016 it declined to 5.5. It showed that between 1980 and 2016, fertility rate in Nigeria just decreased with about 1.3. Akintunde (2016) refers to the previous work by Bankole (2002), that child mortality, early marriage, early child bearing, low use of contraception and high social values placed on child bearing are responsible for the slow decline of the fertility rate witnessed in Nigeria over the years.

Table 2 below shows the trends of both primary and secondary school enrolments of females. The female primary school enrolment has not been stable over the years. Between 1980 and 1985, the primary school enrolment for female increased from 84 to about 95. However, in 1986, there was a sharp decline to about 84. This period witnessed the military rule and it was also the period of Structural Adjustment Programme (SAP) which was characterised by reduction in the government spending. Also, prior to the military rule, it was the civilian regime which introduced free education programme for most of the elementary schools. By the year 2000, there was a considerable increase

in the enrolment to about 88. This period witnessed another civilian regime which introduced free basic education to the educational system in the country. The female primary school enrolment increased to about 94 in 2006 before it started falling again and it later rose to fall again.

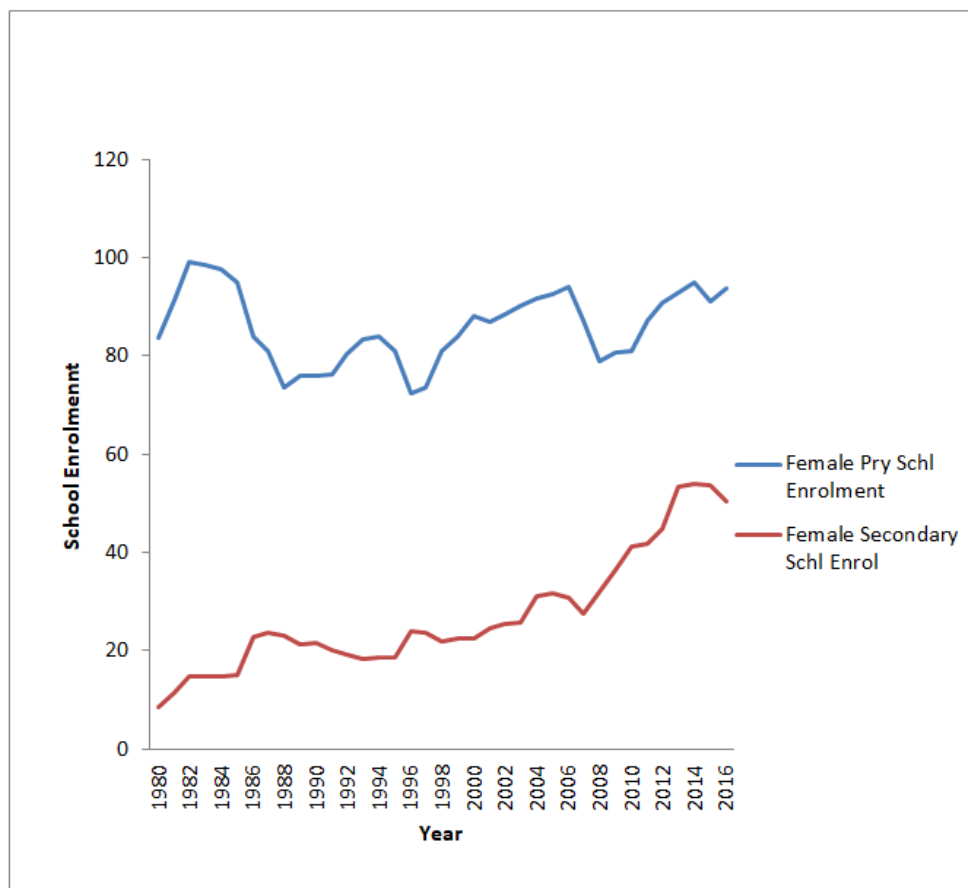


Figure 2: Female Primary and Secondary School Enrolment in Nigeria (1980-2016)

Source: Authors' Computation

Furthermore, it can be seen from Table 2 that the female secondary school enrolment is low when compared with the female primary school enrolment. The high level of teenage pregnancy in Nigeria might have accounted for this,

because pregnant girls eventually drop out of school. However, the female secondary school enrolment has witnessed increase over the years.

4.2 Descriptive Statistics and Correlation Analysis

Results of the descriptive statistics and pre-estimation tests of the variables used in the regression analysis were reported in Tables 1 and 2. They are tests used to support the choice of a model. The rule of thumb is that standard deviation (SD) of any variable should be equal to zero or close to zero, which implies that the deviation from the mean must be small over time for our chosen series to be less volatile. In Table 1, all the variables (fertility rate, female labour force participation, female primary school enrolment, female secondary school enrolment, per capita income and unemployment rate are not statistically different from zero over time with values of (0.374, 5.981, 7.513, 0.089, 0.956 and 0.333), thereby conforming to the rule of the thumb. For a series that is normally distributed, we expect the deviation from the mean to be zero or not to be statistically different from zero. The skewness looks at the spread of the data and how close and far is these data values to the mean. This is because; the closer the data values to the mean, the closer the SD to zero. In Table 1, all the variable series are normal because all its skewness values are greater than zero, thus, all the variables conform to the decision rule of statistics.

The kurtosis looks at the height and how peak are the values of the variables. Thus, the optimal threshold for kurtosis is 3. All the variable series are below 3 the threshold which makes the series for these variables to be platykurtic. At 1% significance level in terms of the Jacque Bera test, all the computed probability values for the series are greater than 1% (0.01) the chosen probability values, this implies that we do not reject the null hypothesis at 1% significant level, meaning that the series is normally distributed. At 5% and 10% significant levels, only female labour force participation and female primary school enrolment series are not normally distributed.

Table 1: Descriptive Statistics for the Variables

	FER	FLFPR	FPSE	FSSE	GDPK	UNEM
Mean	6.207459	44.33946	86.04935	2.254428	4.203499	0.907384
Median	6.159000	47.30000	87.04300	2.307068	4.401036	0.806180
Maximum	6.783000	50.36000	99.23400	2.333246	5.703265	1.477121
Minimum	5.526000	34.16000	72.43500	2.051153	2.833853	0.278754
Std. Dev.	0.373759	5.981346	7.513265	0.089734	0.956537	0.333477
Skewness	0.045899	-0.822874	-0.067247	0.935646	-0.127388	0.045288
Kurtosis	1.882156	1.832022	1.987693	2.448981	1.622546	1.819750
Jarque-Bera	1.939419	6.278683	7.118394	5.549478	2.861675	2.043408
Probability	0.379193	0.043311	0.028462	0.062366	0.239109	0.359981
Sum	229.6760	1640.560	58.72588	78.90499	147.1225	31.75843
Sum Sq. Dev.	5.029059	1287.954	0.013645	0.273775	31.10872	3.781034
Observations	37	37	37	37	37	37

Source: Authors' Computation.

Table 2: Correlation Results

	FER	FLFPR	FPSE	FSSE	GDPK	UNEM
FER	1.000					
FLFPR	-0.876	1.000				
FPSE	-0.120	-0.133	1.000			
FSSE	-0.886	0.654	0.208	1.000		
GDPK	-0.786	0.522	0.353	0.912	1.000	
UNEM	-0.620	0.432	0.193	0.510	0.373	1.000

Source: Authors' Computation

Table 2 presented the results of the correlation analysis which is important to establish the level of association among the variables used in the regression analysis. The analysis is particularly important to determine the type of association between fertility, education and the female labour force participation rate which has implication for their inclusion in the same model. The results suggest that the correlation coefficients between these three variables are moderate and can co-exist in the same model.

4.3 Unit Root and Co-integration Tests

The Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests were conducted for each series, and the results were presented in Table 3. It is found that FPSE is the only series that is stationary at level, while all other

variables are not stationary at levels. (GDPK, FSSE, UNEM, FER and FLFPR). However, these variables were stationary after first difference.

Table3: Results of Unit Root Tests

Variable	Augmented Dickey-Fuller (ADF)			Phillip Perron (PP)			Decision
	Level	First Difference	I(d)	Level	First Difference	I(d)	
FER	2.3634	2.7390**	I(1)	1.1 283	2. 9079**	I(1)	I(1)
GDPK	0.0723	-5.3363*	I(1)	-0.0437	-5.3270*	I(1)	I(1)
FLFPR	-1. 4546	-6.2076*	I(1)	-1.4142	-6.2390*	I(1)	I(1)
FPSE	-2.8807**	-4.1249*	I(0)	-2.0145**	-4.0367*	I(0)	I(0)
FSSE	-0.1884	-4.7041*	I(1)	-0.2066	-4.5164*	I(1)	I(1)
UNEM	-1. 9312	-6.6962*	I(1)	-1.9458	-7.2349*	I(1)	I(1)

Source: Authors' computation; *Note:* *, ** and *** imply statistical significance at 1%, 5% and 10% levels respectively, while all variables are estimated at intercept.

Table 4: ARDL Bounds Test for Co-integration Relationship

Model	Computed F-Statistic	
FLFPR	6.50055	
Bounds Level	I(0)	I(1)
1% critical Value	3.41	4.68
5% critical Value	2.62	3.79
10% critical Value	2.26	3.35

Source: Author's computation; *Notes:* **computed** Bounds Test is the ARDL co-integration test and **asymptotic critical value bounds are automatically generated from Eviews 9.0 for k=5.**

The ARDL-bounds test results for the female labour force participation rate model is presented in Table 4. From the estimated Bounds test, the results depicted that the F-statistics of 6.5006 is greater at all levels for both the upper and lower bound critical values. Hence, the null hypothesis of no co-integration is rejected and long-run co-integration relationship exists among the variables in this model.

4.4 Asymmetric Effect of Fertility and Female Schooling on Female Labour Force Participation Rate in Nigeria

Based on the results of the Bounds tests in Table 4, we further estimated the best-matched NARDL model for Nigeria with the Female Labour Force Participation as the dependent variable, while the Fertility Rate, Female Primary School Enrolment and other control variables were introduced as the

independent variables. The NARDL results in Table 5 confirmed the selection of the best models identified in the previous step regarding the significance of the estimated coefficients. Looking at the model's diagnosis tests, the residual series are normally distributed as suggested by the Jarque–Bera statistics, while the Breusch–Godfrey LM test statistics showed that the models do not have significant serial correlation problem. Moreover, the ARCH test and the Ramsey RESET test respectively show that the residuals are homoscedastic and the model has correct functional form.

Table 5: Parsimonious Long-run and Short-run NARDL-ECM Results for FLFPR–Female Labour Force Participation Rate

Variable	Long-run	Short-run
FER ⁻	0.1147 (6.6541)*	
FER ⁺	0.1420 (9.0103)*	
GDPK	0.0541 (3.1015)*	
FPSE ⁻	0.0622 (7.0242)*	
FPSE ⁺	-0.0630 (-4.0201)*	
UNEM	-0.2231 (-5.4473)*	
FSSE	0.0447 (4.2302)**	
Δ FER ⁻		0.0146 (1.3623)
Δ FER ⁻ (-1)		-0.0694 (-5.2359)*
Δ FER ⁺		-0.0155 (-2.3060)**
Δ FER ⁺ (-1)		-0.0435 (-4.6477)*
Δ FPSE ⁻		0.0330 (1.6148)
Δ FPSE ⁻ (-1)		0.0461 (5.7432)*
Δ FPSE ⁺		0.0178 (3.4067)*
Δ FPSE ⁺ (-1)		0.0160 (2.1445)*
Δ GDPK		0.0217 (0.5002)
Δ GDPK(-1)		-0.1480 (-6.3568)*
Δ UNEM		-0.0178 (-3.4067)*
Δ UNEM(-1)		-0.2869 (-1.7202) **
Δ FSSE		-0.0487 (-0.3045)*
Δ FSSE(-1)		-0.0607 (-0.2626) ***
C	205.1857 (4.2883)*	198.9497 (4.2763)*
ECM (-1)		-0.6301 (-8.4669)*
R-SQUARE	0.9745	
Adj. R-SQUARE	0.9320	
F-STATISTICS	22.9123	
AIC	3.6487	
SIC	4.6010	

D-WATSON	2.5974
DIAGNOSTIS TESTS	
Short-run Asymmetry	17.5013 (5.2452)*
Long-run Asymmetry	6.1413 (-2.0599)***
Jarque–Bera normality test	0.6243
Breusch–Godfrey serial correlation LM test	2.5216 (2) ¹
Breusch–Pagan-Godfrey: Heteroskedasticity Test	0.8010 (18)
ARCH test	0.1705 (2)
Ramsey RESET test	4.3101 (2)**

Source: Author's computation; **Note:** *, ** and*** denote significance at 1%, 5% and 10% levels respectively while values in parenthesis are the t-statistics. Meanwhile, in the diagnostic tests, we reported F-statistics and figures in parenthesis are the t-statistic value.

With respect to the parsimonious regression estimate capturing the short and long run analysis, it is observed from Table 5 that the coefficient of determination (that is R^2) from the short and long run estimate shows that the five explanatory variables jointly explain about 96 per cent of variations in female labour force participation rate in Nigeria. The F-statistics (22.9123; $p < 0.000$) shows that the model estimated is appropriate while the Durbin Watson statistics is 2.5974, indicating the absence of serial auto-correlation in the long run estimate. The short run regression estimate also shows that the coefficient of the error-term for the ECM model is both statistically significant at five per cent and negative. The coefficient estimate of the error correction term of -0.63 implies that the model corrects its short run disequilibrium by about 63 per cent speed of adjustment in order to return to the long run equilibrium. Also, the negative sign of the error correction term indicates a move back towards equilibrium.

Furthermore, in the short run, the coefficients of fertility rate, GDP per capita, female primary and secondary school enrolment had positive impact on female labour force participation and were significant at 5% ($p < 0.05$). However, unemployment rate had a negative effect on female labour force participation and was significant at 5% ($p < 0.05$). This finding conforms to studies by Younger (2006) and Baah-Boateng *et al.*, (2013). Specifically,

¹ Following from this, the selected lag is reported in the parenthesis

Baah-Boateng *et al.*, (2013) argued that increased fertility rate improves and increases female labour force participation in the Ghanaian labour market. This is similar to the case of Nigeria and it could be as result of the fact that most women engage in the informal sector or are self-employed which is more flexible. That is, it gives women the opportunity to combine home production with market work and thus, are able to have more children and still engage in the labour market. Earning wages will afford them the opportunity to take care of their children thus, improving their standard of living. However, the finding is in contrast to the study of Chun and Oh (2002) which found a negative impact between fertility and female labour force participation rate in South Korea. Also, the positive effect to female primary and secondary school enrolment on female labour force participation rate conforms to previous studies by Baah-Boateng *et al.*, 2013; Bratti, 2003; Olowa & Adeoti, 2014. Although, the result is in contrast to the study by Bbaale (2014), which found a negative and significant relationship between education enrolment and female labour force participation.

Also, for the long run analysis, fertility rate, female primary school enrolment and GDP per capita were positive and significant at 5% ($p < 0.05$) at the current period. While female secondary school enrolment and unemployment were negative and significant at 5% ($p < 0.05$) at the current period. This positive relationship between fertility rate and female primary school enrolment on female labour force participation rate in Nigeria conform to the previous studies by Baah-Boateng *et al.*, 2013; Bratti, 2003; Olowa & Adeoti, 2014; Tansel, 2001; Aromolaran, 2014; Psacharopoulos & Tzannatos, 1992; Kottis, 1990; Fosu *et al.*, 1999 and Ince, 2010. This positive impact of female primary school enrolment on female labour force participation rate implied that with an increasing literacy rate for women, they will have more access getting a better position in the labour market. This will enhance women's position in the society (Ince, 2010). When women are better educated, they would be able to earn higher wages. Hence, this would make them to have more incentive to work and increase investments in their children.

Interestingly, while the effect of female primary school enrolment on female labour force participation is positive, the effect of female secondary school enrolment is negative. The decision to acquire more education means that they

would have to stay off job for a while and pursue their academic career. Their opportunity cost of acquiring more education is the labour wages they would have to forgo. Making working time to be more flexible for women would increase participation under this scenario. The negative relationship between unemployment and female labour force participation is expected because high unemployment level could discourage women from participating in the labour market because there would be high level of competition with their male counterpart, competing for limited job offer. The positive impact of GDP per capita and female labour force participation also conforms to the a priori expectation.

5. Conclusion and Policy Implications

In order to achieve a sustainable development in a country, increase in labour force participation is inevitable. The study examined whether fertility and education have impact on female labour force participation both in the short and long-run in Nigeria. The study employed the Non-Linear Autoregressive Distributed Lag Modelling approach to co-integration on secondary data from 1980 to 2016. The dependent variable was female labour force while, the explanatory variables were: the fertility rate, female primary school enrolment, female secondary school enrolment, GDP per capita and unemployment. Thus, the results showed that the fertility rate, GDP per capita, female primary school enrolment had positive and significant effects on female labour force participation in both the short and long run periods. On the other hand, only the unemployment rate has negative and significant impact on female labour force participation rate in the long and short-run. The female secondary school enrolment had a positive and significant effect on female labour force participation in the short run but it was negative in the long run.

The results from the study implied that government should adopt appropriate policy that will improve educational enrolment for females and reduce the level of unemployment at large. Particularly, there is the need to increase employment opportunities for women. The government can support women who are self-employed through micro credit. At the same time, they should ensure that time use for labour activities is more flexible and are compatible with child care, especially with women working in the formal sector. Getting a

job that is compatible with child care will not affect the fertility level of women, since they will be able to combine nursing children with paid work. This would lead to increase in women's participation in the labour force, especially in Nigeria. Also, there is need for the Nigerian government to invest more in the girl-child education. This could be done by creating awareness of the importance of girls going to school, discourage early marriage (girl-child marriage). Policies that would reduce teenage pregnancies should be pursued because this would make more girls to be in school which in the long run will lead to increased participation of women in the labour force. Just as its being done in some developed countries, government could provide nannies for nursing mothers, since high level of fertility is not seen as a threat. This would increase their opportunity cost of getting engaged in paid jobs. Furthermore, government should gear efforts towards diversifying the economy to increase aggregate national output. When there is increase in income, this may bring about increase in wage rate, which could serve as incentives towards increase in the female labour force participation in Nigeria.

Conclusively, female education is very important in order to have increase in the participation of women in the labour force in Nigeria. Also, high fertility rate is not a threat to female participation in the labour force in Nigeria, because women can take advantage of the communal lifestyle where older women can take care of their children whenever they go to work. Also, women who engaged in self-employment have flexible time in which they can combine domestic work with market work.

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CHAPTER

18

HEALTH WORKERS' ATTITUDE TOWARDS THE USE OF SOCIAL MEDIA FOR CONSULTATIONS AND DRUG PRESCRIPTIONS IN LAGOS

David Ikechukwu Ekwoaba

Abstract

The advent of technological innovation has ushered in new consultation mode that has virtually eliminated distance between doctors and patients. This becomes more crucial for rural areas where medical personnel and infrastructure are in short supply. The study therefore sought to examine the health workers' attitude towards leveraging on social media to extend care to their distant patients without physical contact. This was achieved by examining health workers view on relevance of social media in consultations and prescriptions and exploring the range of prescriptions deployed through the social media. The design was cross-sectional and involved doctors' in General Medical Practice in Federal Government establishments in Lagos Mainland Local Government Area of Lagos State. One hundred and two of the respondents who have had at least five years of Medical practice were purposively selected. For respondents' validation, four Pharmacists with at least five years of work experience in private pharmacy stores were interviewed using in-depth interview guide. Descriptive statistical method of analysis was used for quantitative data while content analysis was used for qualitative data. The results showed close to two-thirds of respondents utilising social media platform to reach mostly their friends and relations. The deployment of social media in prescriptions extended across different classes of drugs like analgesics, antibiotics and anti-malarials. This could be better organised and leveraged on by government to involve doctors and even specialists to interact with health workers' in rural settings especially when second opinion clarifications on difficult cases are highly needed. This view could mean a modern way of redistribution of certain health specialists that are in short supply in areas of need.

Keywords: Consultation, Health workers, Patients, Prescription, Social Media.

Introduction

The use of modern technology like smartphones is essential for effective doctor-patient communications in the 21st century health care. This becomes quite compelling in developing countries like Nigeria where healthcare personnel are in short supply and not well distributed between rural and urban areas. Social media that would incorporate phones and WhatsApp could be used to mitigate the short supply of health workers and reach patients distant from their caregivers. Good cell phone penetration is evident in Nigeria, as the nation's active telephone lines have hit 145.4 million (Adeleke, 2016). Social media could therefore, be used to enhance the efficiency of health and medicine in the country. It could be employed as effective tool across a range of social learning and communication in health and healthcare: in patient care, monitoring, rehabilitation, communication, diagnosis and teaching (Kamel Boulos, Wheeler, Tavares, Jones, 2011; Kamel Boulos, Brewer, Karimkhani, Buller & Dellavalle, 2014).

Due to the high level of confidentiality in patient management, applications that could be easily personalised like phone calls, Short Message Service (SMS) and WhatsApp could be combined for management of patients distant from the health care worker. WhatsApp in smartphones allow such events as viewing patients' radiological images and communicating with colleagues, permit healthcare professionals to execute several tasks at point-of care (Koehler *et al.*, 2013) even for distant patients. This becomes important among populations that are not so literate to fill online medical forms that could tell details of their medical history. While the phone conversation will be used to get medical history of the patient, the WhatsApp could be used to take pictures of abnormalities like injuries, results of investigations, drugs or prescriptions used in the past. As innovative as it appears, however, the absence of physical examination is a drawback on this mode of consultation. More so, handling of patient information must be with utmost care and in compliance with the prescribed privacy principles to avoid unauthorised use or disclosure (Johnston *et al.*, 2015). This is because issues of confidentiality

may arise when online consultations are compromised unless strict security and protocols are in place (Kahan, Seftel, & Resnick, 2000).

Previous studies on the benefits of communications applications in clinical practice had been rather scanty; however, research on the use of the social media by medical staff had been rather negligible (Ozdalga, Ozdalga & Ahuja, 2012; Ventola, 2014; Patel *et al.*, 2016). The study therefore, sought to examine the attitude of doctors towards the use of social media for consultation in Lagos State.

Research Questions

What is the attitude of health workers towards use of phones, SMS and WhatsApp for consultations and prescriptions?

What are the range of drugs covered in phones, SMS and WhatsApp consultation and prescription?

Literature Review

The Attitude of Health Workers towards Use of Phones, SMS and WhatsApp for Consultations and Prescriptions

Inadequate skilled health professionals and poor financing of health care are some of the factors mitigating against access and proper management of health challenges in developing countries (Qiang *et al.*, 2011). The areas of these shortcomings include personnel, medical equipment, health care financing, high out-of-pocket expenditure and community-based integrated system for disease prevention, surveillance and treatment (HERFON, 2006; Obansa & Orimisan, 2013). Doctors could leverage on technology of phones and WhatsApp to reach patients outside the point-of-care to widen the horizon of access to health care.

A major challenge here is the absence of internet prescription guideline for medical practitioners in Nigeria. However, the United States Federation of State Medical Boards published, "Model Guidelines for the Appropriate Use of the Internet in Medical Practice" in 2002 (FSMB, 2002). The FSMB Guidelines further stated that "e-mail and other electronic communications

and interactions between the physician and patient should supplement and enhance, but not replace, crucial interpersonal interactions that create the very basis of the physician-patient relationship” (FSMB, 2002). Guidelines issued by the American Medical Association states that a physician who prescribes medications via the Internet must establish or have an established valid patient-physician relationship (AMA, 2003). Globally, there is a rising demand for an effective, efficient, and trustworthy healthcare delivery system (Wanless, 2002). This demand according to WHO (2006), was more in developing countries like Nigeria with more rural areas, inadequately trained healthcare personnel, healthcare facilities, and the limited number of healthcare programmes. This could be ameliorated by doctors in urban areas incorporating social media consultations to patients distant from the point-of-care. However, little is known on healthcare professionals’ use of and attitudes towards using smartphones in clinical practice (Koehler *et al.*, 2013), making this study an invaluable article.

What is the Range of Medications Covered in Phones, SMS and Whatsapp Consultation and Prescription?

Literature on range of medications covered by phones, SMS and WhatsApp consultations and prescription is rather scanty or even non-existent. However, the high prevalence of self-medication among Nigerians could be an indication for the need for doctors to be involved in methods of consultation that could reach their patients far from the point-of-care like through the use of phones and WhatsApp consultations. The use of self-medication is a common phenomenon and had been applied for common health challenges like fever, body pains, indigestion, diarrhoea, vomiting, cough, and upper respiratory tract infections (Arikpo, Eja & Enyi-Idoh, 2010).

In the southern part of Nigeria, a study on self-medication of the population ranges from 60 to 90% in some communities (Oyelola, Razaq & Eniola, 2010). Self-medication is common among those with chronic illnesses, younger age and undergraduate students; with more than half of the students being involved in self-medication with antibiotics, while a quarter of the female students use antibiotics for menstrual symptoms (Filho, Antonio, Lima-Costa, & Uchoa, 2004; Arikpo, *et al.*, 2010; Olayemi, Olayinka, & Musa, 2010; Sapkota *et al.*, 2010). This abuse of antibiotics could lead to a

bigger global challenge of antibiotics resistance. These undergraduates had more than three quarters of them using social media websites as a major means of interaction, gaining social identity as well as social capital (Heiberger & Harper, 2008; Pempek *et al.*, 2009; Mazman & Yasemin, 2011; Junco *et al.*, 2012). Doctors could therefore utilise this platform to minimise self-medications and reduce future antibiotics resistance by employing social media involving phones and WhatsApp to reach this group of population in healthcare delivery.

Technological/Media Determinism Theory

The media technological determinism theory is attributed to Marshall McLuhan in 1962. Technological determinism underscores how technology and media assume the role of key mover in history and social change (Kunz, 2006). New technologies transform society, institutions, social interaction and individuals. People, therefore, change their patterns of communication to fit with the new available technology of communication. The social media, however, is the new mode of communication and many people are on the platform. The health profession can be revolutionised by applying social media in the areas of consultations and prescriptions. To achieve this however, the health professionals should be ready to embrace this change in communication in their practice. This has capacity to reach people far from the point of care, and also provide easy access to second opinion among health specialists. This could mean a new way of redistribution of experts to areas of short supply.

METHODOLOGY

The research is a descriptive design, employing cross-sectional study of one hundred and two medical practitioners selected from federal government health institutions in Lagos Mainland Local Government Area of Lagos State. Respondents were purposively selected and were doctors working as General Medical Practitioners with more than five years of experience. Data analyses utilised descriptive statistics involving Likert scale. In-depth interview was conducted at Pharmacy outlets in Lagos Mainland Local Government Area, involving four pharmacists purposively selected. This was done to validate respondents' claims. Sample size was determined by Cochran formula. The Cochran (1963:75) formula allows you to calculate an ideal sample size given

a desired level of precision, desired confidence level, and the estimated proportion of the attribute present in the population.

To calculate the sample size based on the sample required to estimate a proportion with an approximate 95% confidence level (95% – Z Score = 1.96), the Cochran formula is utilised:

$$n = \frac{Z^2 pq}{d^2}$$

Where:

- n = required sample size,
- p = proportion of the population having the characteristic,
- q = 1-p and
- d = the degree of precision.

With a prevalence of 6% derived from a pilot study of health workers' attitude towards use of social media in consultations and applying 95% confidence interval at 5% level of precision the Cochran formula will yield:

$$n = \frac{1.96 * 1.96 * 0.06 * 0.84}{0.05 * 0.05}$$

=77.5 which is upgraded to 102.

Discussion of Findings

A total of 102 respondents, who were doctors working in Lagos Mainland Local Government Area, were involved in this study.

Table 1: Socio-demographic Characteristics of Respondents

Variable (%)	Frequency (n = 102)	Percentage
Age group (years)		
<30	36	35.3
30 – 39	43	42.2
40 – 49	16	15.7
≥50	7	6.9
Mean ± SD	34.25 ± 2.87	
Sex		
Male	44	43.1
Female	58	56.9
Marital Status		
Single	28	27.5
Married	71	69.6
Separated	1	1.0
Divorced	2	2.0
Specialisation		
General Practice	75	73.5
Undergoing Specialist training	15	14.7
Specialist	12	11.8
Years of practice (years)		
<10	65	63.7
10 – 19	24	23.5
20 – 29	9	8.8
≥30	4	3.9
Mean ± SD	10.63 ± 3.23	

The mean age of the respondents was 34.25 ± 2.87 years. The highest frequency of respondents, 43(42.2%) were in the age range of 30 – 39 years. Over half of the respondents (56.9%) were female. Almost 70% (69.6%) were married. Close to three quarter of the respondents (73.5%) were general medical practitioners, 15 respondents (14.7%) were undergoing specialist training in general medical practice and 12 respondents (11.8%) were specialists in general medical practice. The mean years of practice of the respondents were 10.63 ± 3.23 years.

Table 2: Use of Phones, SMS and WhatsApp Consultations and Prescriptions and Major Constraints

Variable	Frequency (n = 102)	Percentage (%)
Class of drugs prescribed on phones, SMS and whatsApp for consultations and prescriptions		
None	6	5.9
Mainly analgesics	12	11.8
Analgesics and some antimalarials	26	25.5
Analgesics, Antimalarial, Antibiotics	48	47.1
Any drug depending on urgency	10	9.8
Main constraint for use of phones, SMS and WhatsApp for consultations and prescriptions		
Patients' clarity in describing illness behaviour	60	58.8
Poor knowledge of past medical history	10	9.8
Holding back of vital info	26	25.5
Patients' literacy level	6	5.9

Close to half of the respondents employ social media consultation across analgesics, antimalarial and antibiotics with almost a tenth prescribing any class of drugs depending on urgency of the case. However, the greatest worry of the respondents (58.8%) were patients' clarity in describing illness behaviour.

This finding was corroborated with the statement of a pharmacist in one of the pharmacy stores who had this to say:

We surely see patients come with SMS prescriptions on their phones and sometimes in their WhatsApp platforms from doctors. They are mainly painkillers, antimalarials, antibiotics, antihypertensives and even antidiabetic drugs. However, we do not endorse certain prescriptions like sleeping pills. For any drugs that can make one sleep, I must demand and keep hardcopy prescriptions in case of legal implications (Pharmacist, 45years with 16 years practicing experience).

Table 5: Attitude towards the Use of Phones, SMS and WhatsApp for Consultations and Prescriptions

Variable	Strongly Agree Freq(%)	Agree Freq(%)	Undecided Freq(%)	Disagree Freq(%)	Strongly disagree Freq(%)
I use phones, SMS, WhatsApp to reach some patients in need	18(17.6)	46(45.1)	18(17.6)	15(14.7)	5(4.9)
Use can be better organised to help workers in distant areas	24(23.5)	48(47.1)	21(20.6)	5(4.9)	4(3.9)
Use is usually for friends and close relations	9(8.8)	60(58.8)	12(11.8)	15(14.7)	6(5.9)
Limit prescriptions to analgesics and antimalarials only	10(9.8)	54(52.9)	15(14.7)	19(18.6)	4(3.9)
Extend prescriptions across all drugs depending on urgency and patients' medical history	3(2.9)	27(26.5)	20(19.6)	24(23.5)	28(27.5)
Fear of legal implications should things go wrong	47(46.1)	45(44.1)	4(3.9)	2(2.0)	4(3.9)

Almost two-thirds of the respondents agreed that they used phones, SMS, WhatsApp to reach some of their patients in need (62.7%), mostly their close

friends and relations (67.6%) and especially when prescriptions involve analgesics and antimalarial (62.7%). Close to a third (29.4%) could extend phones, SMS and WhatsApp consultations across any class of drugs to respond to emergency situations. However, majority of the respondents (90.2%) entertained fears about the legal implications in the use of phones, SMS and WhatsApp consultations especially if complication comes up from the treatment.

Conclusion and Recommendations

Social media is a new mode of communication mostly among the young population. However, its application in healthcare management had not been well researched in the country. The restriction of such consultation to family members and friends could be borne out of practitioners' worry about patients' clarity in describing illness behaviour and fear of legal implications when things go wrong. Despite these worries, close to two-thirds of the health workers still make prescriptions across analgesics and antimalarial with more than two-third believing that such mode of consultation could be enhanced to help health workers in distant areas.

There is need therefore, to have a national guideline for the appropriate use of the social media in Medical Practice consultations with the necessary legal framework. A database of health workers willing to participate in social media consultations could be established and subsequently creating public awareness on how to engage them. With this, social media consultations could be the future for General Medical Practitioners, more so in reaching clients far from point of service.

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CHAPTER

19

ASSESSING THE ROLE OF MARITAL AND SEXUAL SATISFACTION ON PSYCHOLOGICAL DISTRESS AMONG MARRIED PEOPLE IN LAGOS STATE: IMPLICATION FOR FAMILY AND NATIONAL ECONOMY

Aroyewun, B. A. & Oyeyemi, T. E

Abstract

Marriages today encountered lots of challenges in which many married people tend not to speak about and these problems when held back for certain period of time caused psychological distress. The aim of this study therefore, is to examine the relationship between marital satisfaction, sexual satisfaction and psychological distress among married people. 250 (125 male & 125 Female) married couples were conveniently sampled and survey research design was adopted. Index of Sexual Satisfaction (ISS), Index of Marital Satisfaction (IMS) and Symptoms Distress Checklist-90 (SCL-90) were used to measure sexual satisfaction, marital satisfaction and psychological distress respectively. Pearson product moment correlation was used to investigate the relationship between the variables. The result showed that there was a significant positive correlation between marital satisfaction, sexual satisfaction and psychological distress [$r=0.203$; $df=1$; $p<0.001$; $r=0.191$; $df=1$; $p<0.005$ respectively]. It can be concluded that there is a relationship between marital satisfactions, sexual satisfaction and psychological distress among married people which a serious implication for family and national economy.

Keyword: Marital Satisfaction, Sexual Satisfaction, Psychological Distress.

Introduction

The family is an underlying social institution occurring in all societies, albeit its particular forms differ importantly from place to place. It provides the bricks for the building of the society and it comes into existence each time a marriage is successfully contracted. Marriage is a union in which two individuals from different background and personality traits interact and cohabit together for the cause of establishing a family. According to (Ames, 2007) marriage is believed to be the most enjoyable and friendly human relationship that shapes the foundation and structure of families and nations. It is intriguing to note that as family plays a positive role in the life of individuals that came together to be joined in marriage to form a new family and the nation, so is economic activities to the family and the nation. On one hand, as couples work to provide for their family, on the other hand their work is adding to the economic growth and development of the nation. Thus, having a satisfying marriage has a positive effect on the quality of life of couples, their children and family members so is it on the nation. Caruna, Money and Berthon (2000), defined satisfaction as “a response to the feeling or experience and the fulfillment or gratification of a desire, need, or appetite, and the pleasure or contentment derived from such gratification”. Randall and Bodenmann (2009) predict that conflict occurs in marriage if spouse’s need or importance is not fulfilled which then results in dissatisfaction. Furthermore, as marriage is an interaction and mutual understanding between two unique personalities, there are chances of having conflict and adjustment problems.

Diener, Wittz, Tov, Kim-Prieta, Choi, Oishi, *et al.*, (2010), described psychological distress as ways in which people evaluate their lives both emotionally and in cognitive judgments. Williams (2003) posited that marital quality is an important determinant factor in an individual’s psychological well-being. According to this author, those with poor marital quality experience more psychological distress than their non-married peers, this affects them emotionally, socially, occupationally. It further affects their occupational or professional commitment to work and their individual, local and eventually national output which may snowball into a drop in the national growth and development and in some cases lead to economic crises.

One of the major problems frequently encountered in marriage is marital distress. It is one among the most stressful and upsetting of human problems. Marital distress has powerful effects on the partners, often leading to great sadness, worry, a high level of tension, anxiety, and depression. And, if prolonged, it can negatively impact one's physical health, marriage and the national economy. For many, marital distress ultimately results in divorce with its myriad of additional difficulties and risk factors both to the individuals and the society.

Study by (Gurman & Fraenkel, 2002) found out that 20% of the population had experience marital distressed at one time or the other. The divorce rate has stabilised, with approximately half of all marriages ending in divorce. Ten to fifteen percent of couples separate in the first four years of marriage, and only 70% make it through the first decade of marriage. (Whisman, 1999) found out that there is a strong association between marital distress and the prevalence of psychiatric disorders in general, and that of each of the 15 major groups of psychiatric disorders. Typically, rates of these disorders were double for those who were experiencing psychological distress in their marriage compared to those who were not. Among those with significant levels of psychological distress, 15% had concurrent mood disorders, 28% anxiety disorders, and 15% alcohol or substance use disorders which in turn impact their ability to gain and sustain employment.

Sexual satisfaction according to Lawrance & Byers (1995) is “an effective response arising from one’s subjective evaluation of the positive and negative dimensions associated with one’s sexual relationship” (p. 268). Sexual satisfaction is a broad construct closely intertwined with quality of marriage, quality of life, general welfare, and happiness (Sprecher, 2002). A decline in sexual satisfaction has been associated with an increased likelihood of divorce (Sprecher, 2002) even after controlling for general marital happiness. Conversely, a satisfying sexual life has been positively associated with general well-being, overall life satisfaction, and happiness (Ventegodt, 1998). Being an important element of marital life, sexual relationship and satisfaction derived from it has significant relation to have a warm and sustaining relationship between spouses.

Marital distress is one of the most frequently encountered and disturbing human problems. Everyone who is married experiences difficulties. For some, these troubles reach the point of deep disappointment and doubts about staying married.

The purpose of this study is to investigate whether marital satisfaction and sexual satisfaction will have any relationship with psychological distress which impact of work and family function. Based on the literature regarding marital and sexual satisfaction and psychological distress, we hypothesized that: 1). There will be a significant relationship between marital satisfaction and psychological distress; 2) There will be a significant relationship between sexual satisfaction and psychological distress.

Methods

Design

Survey research design was adopted for the study.

Sample Size

Two hundred and seventy (270) Married employees [Male 125 (46.3%) and female 145 (53.7%)] in the service of both the Federal Government and the Lagos State Government were conveniently sampled to get robust participation.

Setting

The study was carried out in Lagos Mainland area (Yaba and its environs) of Lagos State. This location was chosen because it was the education district of Lagos from the original Lagos master plan; hence, its host many foremost educational institution and other Federal establishment from where the participants for the study was drawn. The researcher approached and sought the consent of all the employees who were available in their offices but only a total of 270 married couple gave their consent to participate in the study.

Data Analysis

Statistical Package for Social Sciences software, 23 (SPSS 23) was used to analyse the data. At $P < 0.01$ and 0.05 level of significance respectively was considered, Pearson moment correlation, were used to analyse the data.

Research Instruments

Marital satisfaction was measured with Index of Marital satisfaction scale (IMS) developed by W.W Hudson (1982) to measure problems associated with marital satisfaction. It is a 25-item inventory designed to measure the degree, severity or magnitude of problems one spouse or partner perceives to be having in the marital relationship with his or her partner. IMS is administered individually or in groups after establishing adequate rapport with the client.

The norms for Nigerian samples young adult M & F is 38.84. The reliability coefficients reported by Hudson (1982) are: Cronbach's alpha internal consistency = .96, 2-hour test-retest = .96. A concurrent validity of .48 was obtained by Anene (1994) by correlating IMS with Marital Stress Inventory (MSI) (Omoluabi, 1994).

Sexual satisfaction was measured with Index of Sexual Satisfaction (ISS) scale developed by W.W Hudson (1982) to measure the degree of satisfaction in sex among married couple. It is a 25-item inventory. ISS is administered individually or in groups after establishing adequate rapport with the client. The reliability coefficients reported by Hudson (1982) are: Cronbach's alpha internal consistency = .92, test reliability coefficient $r = .94$. A concurrent validity of .20 was obtained by Nwobi (1998). By correlating ISS with sexual Anxiety inventory (Hoon & Chambless, 1986).

Psychological distress was measured with Symptom checklist-90 (SCL-90). It is used to measure psychological distress. It has 10 categories which stands for A=Somatisation, B=Obsessive-Compulsive, C=Interpersonal Sensitivity, D=Depression, E=Anxiety, F=Hostility, G=Phobic Anxiety, H=Paranoid Ideation, I=Psychoticism, J=Neuroticism. It has been validated in Nigeria by Erinoso (1996) with significant of concurrent validity between Retirement Stress Inventory (Omoluabi, 1996).

Result

Table 1: Frequency Table of Demographic Variables

Variable	Frequency	Percent
Male	125	46.3
Female	145	53.7
Total	270	100.0

Table 1 above shows that 125 (46.3%) of the participants were male, while 145 (53.7%) were female.

Table 2: Summary of Correlation between Marital Satisfaction and Psychological Distress among Married People

	Marital Satisfaction	Psychological Distress	Sig.	Mean	Std.Dev
Marital Satisfaction	1	0.203**	0.001	66.61	14.78
Psychological Distress	0.203**	1		112.13	71.89

Table 2 above shows significant positive correlation between marital satisfaction and psychological distress ($r=0.203$; $p<0.001$).

Table 3: Summary of Correlation between Psychological Distress and Sexual Satisfaction among Married People

	Psychological Distress	Sexual Satisfaction	Sig.	Mean	Std.Dev
Psychological Distress	1	0.191**	0.002	112.13	71.89
Sexual Satisfaction	0.191**	1		65.64	13.62

Table 3 above shows significant correlation between marital satisfaction and psychological distress ($r=0.191$; $p<0.005$).

Discussion

This study investigated the relationship between marital satisfactions, sexual satisfaction and psychological distress. The result suggested that there is a

positive relationship between marital satisfaction and psychological distress. This finding is consistent with Renne (1970), who observed that marital satisfaction has a positive association with overall well-being and happiness. Another study conducted by Pateraki and Roussi (2013) confirms the strong relationship between marital satisfaction and depressive symptoms, but also suggests that this relationship is complex. Study by Horwitz, McLaughlin, and White (1998) does not agree with this finding, as they brace with their earlier study that individuals with more supportive partners are more likely to report lower levels of psychological distress than individual with problematic spouse.

Also, this study found out that there is a positive relationship between sexual satisfaction and psychological distress. This present study supports the finding of Ventegodt, 1998 who found out that satisfying sexual life has been positively associated with general well-being, overall life satisfaction, and happiness.

Implication and Conclusion

The result of this study have important implications to Psychologist, Sociologist, Economist and people in the financial world and work functions in knowing some of the variables that affect marital and sexual satisfaction and ways it could be reduced if not eradicated. It would help to educate and shed more light to members of the society on the role of marital satisfaction and sexual satisfaction on psychological distress and its effect on the family and national economy and most importantly financial well-being of the nation because a psychologically distress individual is prone to absenteeism at work, reduced productivity, cognitive errors and economic wastage which make him/her a danger to self, to others and to the national economy.

Awareness of psychological distress and its consequences should be more voiced; this could be done through radio, television, billboard. Married couples should be more encouraged to speak out regarding issues they are facing and proper communication should be strengthened.

Limitations

There are several limitations to this study. Firstly, the sample technique (convenience non-probabilistic) of this study posed problem of

representativeness to the number of participants finally used. As it may be noticed, there was skewness to more female than male in the study.

Secondly, we cannot reliably generalise the usefulness of the results from this study because of another reason of setting which was restricted to some part of Lagos Mainland area.

Therefore, this research is a tool for further research in the area of marriage for researchers, students and the general public in order to know how to handle marriages and its effect on the national economy.

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GOVERNANCE AND PUBLIC ADMINISTRATION

CHAPTER

20

MANAGING UNCERTAINTY IN POLICYMAKING AND POLITICS-ADMINISTRATION DICHOTOMY: TOWARDS SUSTAINABLE CLIMATE CHANGE GOVERNANCE IN LAGOS STATE

Okudolo, Ikemefuna Taire Paul

Abstract

Nowhere else than in climate change governance is the uncertainty of public policies more pronounced. One reason for this outcome is the intractable and inestimable difficulty of climate change science to make precise projections of weather patterns and their affective veracities on socio-human conditions. The shortcoming of public policy-related scientific process to help policymakers fully grasp how to effectively handle climate change has increasingly been adduced as the major reason for failure-prone-climate change governance. A politics-administration dichotomy too has further made unwieldy the power of policymaking to predict with precision the likely unintended consequences of formulated climate change adaption programmes. Meanwhile, it is widely acknowledged that the exclusion of bureaucrats in policymaking who ab initio possess more knowledge base of the policy environment by virtue of holding office over longer period than elected officials increases uncertainty of policies to meet set goals. The overarching aim of the study is to establish that the constructive involvement and input of administrators in policymaking is a potent risk management mechanism to drastically curtail policy mistakes, failures and increase certainty of knowledge of unintended consequences. The study's theoretical orientation is eclectic comprising of the politics-administration theory, Max Weber's and Herbert Simon's notions of rational decision-making. Its data analysis orientation is a quantitative-positivist epistemology. The study developed and validated questionnaire which it distributed 20 each in 15 ministries in the Lagos State Civil Service to determine the state's climate change mitigation and

adaptation policymaking culture in the Fourth Republic. 176 questionnaires provided data that was utilised in the hypothesis testing. The Two-way Chi-square statistical tool at $df= 4 @ .05$ level of significance = 9.488 was used to test the two formulated hypotheses. Hypothesis one supports the proposition that policy uncertainty for climate change governance in Lagos State, as in other policy sectors, will reduce intensely if there is balance of power to make input in the formulated policies between the political executive and the permanent bureaucrats. It rejected hypothesis two that public policy legitimacy is enhanced more by bureaucrats' roles solely in policy implementation alone than in giving policy advice and making compelling contributions in the formulation stage. The study recommended amongst others the total abandonment of the hegemony of policy formulation by political officials and their values over those of the permanent administrators.

Keywords: Climate Change, Climate Change Governance, Policy Advice, Uncertainty of Policy, Risk Management, Politics-administration Dichotomy.

Introduction

The decision to exist from the 2015 Paris Accord by the United States under President Donald Trump more importantly underscores the preeminence of political interests in policymaking. The Paris Accord agreement was no doubt a scientifically articulated global mitigate effort against climate change. The USA decision to pullout from the agreement illuminates how the power of politics and parochialism of political leaders can thrust devastation on public policies, and specifically on a thorough global scientific deliberative process for a climate change governance regime. In the circumstance of the pulling out from the Paris Accord, against widespread condemnation from big businesses, academics, climate experts, public administrators, Americans and even large segment of the global community, the uncertainty of international efforts to mitigate climate change has become the more evident (ABC News, 2017; Romo & Parks, 2017). A range of ecological and social factors may be contributing to the global community's failure to mitigate climate change, but in this case, indication of failure-prone climate change global governance will be attributable solely to supremacy of rule of thumb decision-making guided mainly by personal values of elected leaders over scientifically formulated methodologies.

The above scenario underlines the politics-administration dichotomy debate in policymaking. The dichotomy debate is one reflecting how much of involvement and power administrators are supposed to exercise in policymaking to responsibly mitigate uncertainty or ambiguity of policy outputs and outcomes. By deduction therefore, the certainty of climate change governance failure is likely to follow the supremacy of political interests as the one exhibited by President Donald Trump. Especially, where political choices reign contrary to advice and suggestions of administrators who hitherto have better appreciation and understanding of possible uncertainties which are likely to mar a successful attainment of policy objectives (Eriksson & Weber, 2008). Even though the norm in the policy literature is for elective officials to design policies to be authorised, a positively responsive approach nowadays for successful policy governance is to integrate the values of public bureaucrats in policymaking (Blau & Meyer, 1971; Rourke, 1969).

According to Brugnach, Tagg, Keil and De Lange (2007) policy ambiguity or uncertainty implies that policymakers naturally do lack unique or complete understanding of policy contexts to be accomplished. Jensen and Wu (2017) support the aforementioned postulation above. These scholars ordinarily are likely to hold therefore that the reality of policy uncertainty accentuates the need of a research of this kind in a peripheral developing society like Lagos State. Peripheral societies especially in Africa are plagued by high rate public policy instability resulting from a pervasive politicisation and personalisation of public policy instruments (see Jackson & Roseberge, 1982). This characterisation of developing economies chiefly delineates the study's aim which is to make a contribution to underscore an increasing necessity for an intellectual framework for managing and understanding policy uncertainty. Social systems that embody the above societal characterisation experience ever fluxing dynamic and complex policy environments, and they record more damaging cost implications on policy mistakes.

Arguably, the relegation of methodological specialists (i.e. administrators) to translate formulated public policies into concrete utilitarian social tangibles, arising from an emphasis on politics-administration dichotomy in policymaking, has contributed to high negative social costs and decision uncertainties (Final Report on the Conference Dealing with Uncertainty in

Policymaking, 2008). This definitely has forced public expenditures to go up in engaging expert to do more risk management assessment more often to evaluate implemented programmes. Accordingly, every attempt to enhance climate change governance policymaking generally by providing fresh insight into epistemic and ontological uncertainties that pervades the policymaking process in tri-continental sphere developing social systems is welcomed. Epistemic uncertainty refers to the imperfection of knowledge of policymakers of the social, economic, political policy environment, while ontological uncertainty refers to the lack of appreciating the intrinsic variability and unpredictability state qua state (Walker, Haasnoot & Kwakkel, 2013). Our emphasis, however, is on mitigating epistemic uncertainty in climate change governance in Lagos. The overarching strategy of the paper is to ensure the bolstering of the permanent government officials' input in policymaking. As a scholarship, the study aims to contribute to the strengthening and consolidation of politics-administration cooperation in policymaking as a better scientific risk reduction approach against costly epistemic uncertainty in policymaking in developing societies by understudying the Lagos region as a template.

Definitional and Conceptual Issues

The first challenge for any research examining technically grounded and abstract topics is to clarify the usage of certain concepts. It is important to recognise that some of the concepts and keywords being elucidated in this study are elusive, hence the necessity for a conceptual clarification in order to understand their meaning and relate them to the overall aim of the study.

Climate Change (CC):- The generally established denotative meaning of climate change is a change in the weather condition over a period of time. According to the IPCC Third Assessment Report (2001), earth's average surface temperature is likely to increase to 1.4 to 5.8°C in the 21st century from 0.6 – 0.2°C in the twentieth century. And Eze (2010) notes that intensity in global temperature and climate change is bound to persist. Climate change thus conceived is an unpredictable change in the typical weather or change in the distribution of climatic occurrences above the usual norm with attendant negations to human conditions. Hence, a World Bank Report in 2008 projected that climate change would be the main impediment to global food security by 2050 (The Guardian newspaper, 2009; UNFCCC Framework, 2002). Stressing

the veracity of climate change to humanity, the Climate Science Watch (2008:1) notes that innovative institutions, new approaches, fresh resources, even novel ways of thinking, doing things and behaving are evidently necessary to curtail changing global climate. From the foregoing, reference to climate change in a policy-related science like ours connotes the persistent weakness of human-related knowledge to make detailed precisions of all the possible alternatives available to mitigating and adapting to climate change. That is, climate change herein equates the nature of public policy: it cannot be completely grasped, determined, fully communicated and devoid of skepticism.

Climate Change Governance:- Meadowcroft (2010) has noted that climate change governance is embedded in the intricacies of the interplay of politics and administration in the governance process. Ordinarily, the term refers to the institutional structures, systems and practices in place to handle climate change mitigation and adaptation. Herein however climate change governance gravitates towards the conflict of power, interests and values between the political executives and public administrators in climate change policymaking and the compromises to settle those differences.

Policy Uncertainty:- The BBC English Dictionary (1992, p.1272) says that uncertainties are things, especially future events, which nobody is certain about. Policy uncertainty therefore references the absence of precise knowledge or certainty of the outcome of an authorised public policy. This underscores the reality of skepticism in public policy. It is therefore a generally accepted conviction that policy uncertainty is natural. And because nothing seems to be certain in social relations and in nature, policymakers engage in finding the best possible way to go about policymaking to enhance policy certainty. Policy ambiguity, uncertainty of policy, policymaking uncertainty and unintended consequences are expressions that generally elicit similar meaning to policy uncertainty in this study.

Risk Management:- According to The Economic Times, risk management refers to the practice of identifying potential risks in advance, analysing them and taking precautionary steps to reduce/curb the risk. The Final Report on the Conference Dealing with Uncertainty in Policymaking (2008, p.66) identifies three institutional dimensions of risk management in policymaking. These

institutional dimensions are the horizontalisation, fallibility and proceduralisation. Specific to this study is the horizontalisation management model for dealing with risk of uncertainty in policymaking. This dimension suggests that one way of knowing with certainty possible policy outcomes is by “more coherence in policymaking through enhance insight” from other critical stakeholders in the policy circle like the experts, administrators, academics, etc., (ibid, p.66). Horizontalisation risk management technique herein implies the integration of advices, techniques, values and insights of the permanent government official in the public policy formulation process as a safeguard against possible output mistakes or failures or socially hurtful outcomes.

Politics-Administration:- Herein refers to the interactions, inter-play and power relations between politics epitomised by elected/appointed political officials with the personnel of public/civil services cum agencies symbolic of administration. Therefore, political executives, political official, elected officials/officers is suggestive of politics, while public administrators, bureaucrats, public servants, public personnel infer to administration.

The Problematique

Developing socio-political systems such as in Africa experience more uncertain public policy successes because of the overwhelming power of politics over values of economy and efficiency in implementation of authorised programmes. African nations experience high rate of personalisation of power and such has tended to influence dominion of politics over administration in public policymaking. The winner-takes-all strategy from elections too reinforces the personalisation and politicisation of policymaking in African societies. Given that the general notion is that political executives set the values to be sanctioned in policy, as such, the winner-takes-all syndrome constitutes a major challenge to more participatory policymaking of politics and administration and thereby heightening absence of policy legitimacy. Based on the above reasoning, the usual propensity has been one of hegemony of elected officials in policymaking. On the one hand, elected officials hold that their campaign promises is preeminent over clearly determinable failures if they pursue their manifesto intentions. While on the other hand, the elected policymakers are ever faced with the fear of pursuing policies that give rise to too many uncertainties and thereby social dislocations cum crises.

The challenge also to promote effective climate change governance policymaking in Lagos State remains a difficult task with intimidated, inarticulate and a class of public administrators that suffer from inferiority complex in place. Where the bureaucratic structure and system of a state has kowtow to the whims and caprices of politics even in domains exclusive to it illustrates incapacity of public officials to constitute a force in policymaking. Empirically, it is probably evident that the values of the public bureaucracy are overtly subservient to those of elected officials in Lagos State (Oyelaran-Oyeyinka, 2006). As such, climate change governance policymaking as can be seen to be dominated by political values in Lagos has thus become weakened and ineffective as a mechanism against large scale uncertainty to mitigate bad climate. The consequences of such on Lagos residents have been excessive flooding, large scale displacement of residents from their abodes and the creation of a community of internally displaced persons amongst others. Furthermore, absence of coordinated, cooperative and integrative policymaking process founded on the advice, values, ideas, knowledge and beliefs of the permanent government officials too additionally has compromised the capacity of public policy in the climate change sector to deliver its set objectives in Lagos. It is in this respect that the exclusion of bureaucratic input in climate change governance policymaking apparently serves to aggravate risks of uncertainty especially in developing economies. Rather, purposeful push to instituting an inclusive politics-administration nexus in policymaking in tri-continental spheres political systems like Lagos will be instrumental to curtailing the likely failures, mistakes and miscarriages of climate change governance in the regions.

Climate Change Governance in Lagos State

The literature on climate change suggests that industrialised nations are the major culprit that aggravates climate change (Agbu, 2010:47). The emission of Greenhouse Gases (GHG) through combustion of liquid, solid and gaseous fuels during manufacturing, mining and other industrial activities produce gas concentrates like CO₂ that debar the sun's heat. Gases like CO₂ undermine the earth's ideal surface temperature or warming, and thus conditioning unpalatable climate change. According to Agbu (2010:48), Nigeria's pervasive drought, desert and water encroachment, marine and aqua life depletion and rising sea levels can be linked to climate change. Coastal communities like Lagos are the

more vulnerable to climate change. According to a Guardian Newspaper report (2009), the persistent flooding, erosion, loss of bio-diversity, agriculture land depletion and general ecological degradation in Lagos are by-products of climate change-induced human activities. A Federal Ministry of Environment 2009 Report indicated that decline in agri-business and marine food productivity of coastal communities like Lagos would worsen food security of the nation. That is, the geomorphological condition of Lagos State coupled with its poor infrastructure to mitigate adverse climate ab initio makes the state vulnerable to the threats of changing climate.

Indeed, the abovementioned causes of worsening global climate on a coastal Lagos region underscored the need for better policymaking habits to mitigate the phenomenon of climate change, hence formalisation of climate change governance structures for the state. Established by the regime of Alhaji Lateef Jakande in 1980, the Lagos State Ministry of the Environment is charged with climate change adaptation and mitigation policy management. The Ministry's vision and mission statements respectively are: A flood free, hygienic and beautiful Lagos and to foster a clean, healthy sustainable environment for the well-being of the citizenry through application of best practices in environment management. The re-formalisation of the Ministry was carried out under the regime of Bola Ahmed Tinubu in the Fourth Republic of Nigeria which was inaugurated in 1999. The re-formalisation policy of the Ministry was to reposition it for management of emergent environment challenges like climate change. The goals of the re-formalisation of the state's Ministry of the Environment include the alleviation of diseases; poverty associated with unhealthy environment and promotion of awareness about balancing environment management with development. Others are to promote prevention of pollution of the environment and collaborate with other governments in the federation, international organisations, private sector and community group on environment matters.

The advocated methodology for the implementation of the goals of the re-formalisation policy in line with climate change (CC) governance captures all the elements of a policy circle. These are climate change mitigation and adaptation legislation, regulation, research, monitoring, evaluation, enforcement, information, feedback and awareness. Hence, in 2008 the

Ministry created the Climate Change Department made up of the mitigation and adaptation units. The mitigation unit oversees tree planting, school climate change advocacy/education and desert encroachment control. The adaptation unit performs these tasks: encourage use of renewable energy; collaborate with private sector on renewable energy use; and encourage local governments to explore and improve on utility of renewable energy. Both units were to administer the Lagos State Planning and Environmental Monitoring Authority (LASPEMA) law 2001 and the Environmental Sanitation Law 2000 for sustainable climate change management.

These legislations propose to boost the mitigation and adaptation units under the Ministry to implement amongst others regular assessment of environmental conditions and identification of action programmes necessary to alleviate climate change. Also, another important role of the Units is to develop contingency plans and capabilities to respond optimally to climate change amongst other natural disasters (see State of the Environment Report, 2010). To this end, the maiden edition of the Lagos State Climate Change Summit was held in 2009, between March 24 and March 26. The second Lagos State Summit on Climate Change was held between May 4 and May 7, 2010. The consecutive 5th edition of the summit was scheduled to take place in March of 2013.

The theme of the maiden summit was: Reclaiming the Environment: Challenges and Consequences of Climate Change. It was hosted under Governor Raji Fashola and Dr. Muiz Banire as the Commissioner for the Environment. Ten plenary sessions were held with participants drawn from the academia, corporations, climate experts, NGOs/CSOs and international and national development partners. The plenaries were under these themes: Global CC overview; challenges and prospects; governance and CC; CC and public health; CC, sea levels rise and coastal adaptation; CC and food security; CC and energy; CC and waste management; CC and urban development, CC and imperative of adaptation; and partnership in CC adaptation: German (Bavarian)/Lagos State collaboration. It is to be noted that no session was dedicated to CC and public administrators.

The summits observed amongst others that existing policies, programmes, actions and measures are insufficient as a risk management/reduction

mechanism for the level of risk posed by climate change. Also, that tackling climate change would require combination of contributions of all stakeholders, particularly the public sector operators/services/servants. The 2009 climate summit in Lagos recommendations include. A) Develop a State CC Action Plan with a clear and ambitious vision of the future to drive the major changes that will be necessary to combat change in climate. B) The state's approach to CC should integrate closely with national actions, and promote progressive and forward-looking growth oriented policies tailored to the state's specific development needs. C) All levels of government/public services cum servants should be actively involved in raising awareness of actions Lagos residents can take to mitigate CC.

The second summit recommended that Lagos State needs to substantially build-up contingency response and capability on CC and establish an inter-ministerial committee to promote holistic approach to challenges of climate change. This author notes that, of all the papers delivered at both summits, numbering over thirty, none was by either a retired or serving top public servant of Lagos State on the role of administration in managing CC. This can be interpreted to mean bureaucrats are not considered as an important change-agent of climate change mitigation. Yet, and empirically, pre-existing climate change governance policies before inauguration of the Fourth Republic in 1999 produce large scale uncertainties and have signified to be a deficient management instruments to counteract the risk CC portends. Adaptation and mitigation of climate change in Lagos since after 1999 continue to fall short of expectations. One reason for the abysmal policy failure of climate change governance in Lagos, as far as this study is concerned, is the exclusion of bureaucratic inputs, as signified by their exclusion to present and deliver papers at summits of this kind. And this lacuna arguably can explain the absence of a sustainable path to curtail policy uncertainty in CC governance. It can also explain why the promotion of a functional and holistic tactic to alleviate the risk level of CC in the state is yet to be established.

Explanatory Brief on Bureaucracy, Politics and Policymaking

As a believer in the bureaucratisation of policymaking, Francis Rourke (1969, p. vii) writes that “for it is in the crucible of administrative politics that public policy is mainly hammered out, through bargaining, negotiation and conflict

among appointed rather than elected officials”. Rourke’s thesis in a way represents the new wave of thinking in policymaking that has altered the traditional canons in public policy formulation. This new thinking is being brought about generally by large scale policy failures and inadequacies even in advanced economies, but more pronounced in societies where personalisation and politicisation of rule-making is commonplace. According to Jackson and Roseberge (1982), personalised political systems are those ordered less by a consultative spirit of mediation and regulation in rule-making than by personal rule and political aspirations of powerful individuals. Yet, the pervasiveness of politics in policymaking continues to create many conflicts, dilemmas and uncertainties from implemented policies.

It is the reasoning of these conflicts and dilemmas and to lessen the uncertainties from authorised planned programme that public policy scholars and social scientists have had to espouse for a new approach/thinking of more bureaucratic involvement in policy formulation (see Varma, 1976, p. 13; also see Rourke, 1969; Adamolekun, 2006).

The classical theoretical assumption of the politics-administration dichotomy debate is that policy formulation is strictly the obligation of elected officials. This assumption, however, has proven inadequate to decreasing policy uncertainties and large scale negative policy outcomes. According to Bhagwan and Bhushan (2009, p. 27), the dichotomy between politics and administration in formulation of policy has been long rejected by public administration scholars. Contemporary public administration scholars strongly hold the belief that administrators take part in policy formation, even more overtly today and this generally has been to the benefit of the policy process. It is this belief that causes Blau and Meyer (1971) to come to the conclusion that the bureaucracy has come to constitute an instrument of innovation. The authors argue (ibid, p.105) that “in the large and complex societies of today, the implementation of new social policies require bureaucratic machinery” to succeed.

Researches aimed at both fathoming and deepening the desirability of the intermingling of politics and administration in policymaking support that such a model amounts to an alternative practice to enhance policy success (see Rourke, 1972). This projected model of policymaking continues to engage

further verification to make it a theory-practice grounded science that captures the paradigmatic shift in policy analysis (Bhagwan & Bhushan, 2009). It is such pursuit that compels Dye (1998) to stipulate that the modernisation prospects of a politics-administration nexus model in policymaking lie in satisfying certain criteria. The criteria to tell if the proposed model results in discontinuities from the poor risk management posture of the politics-administration dichotomy model according to Dye (1998, p. 37-38) include: It must ensure order and simplify certainty of implementation and predict/pinpoint what is likely significant to come on the agenda setting template. Other criteria are that it ought to correspond with the advocacy needs of society; provide meaningful feedbacks and communication after authorisation; direct meaningful inquiry, research and evaluation of uncertain negative outcomes; and suggest alternative rational-comprehensive stratagem to tackle emergent problems from implementation of the authorised policy. Also, as a suggested rational policymaking prototypical approach, the politics-administration nexus model should sustain certain social values according to Dye (1998, p. 25). These values are: facilitate understanding of societal ideals, have predictive capacity to foresee uncertainty, intelligibly to optimise cost-benefit ratio to society and facilitate rationality in policy formulation. Consensus abound that a politics-administration nexus in policymaking is bound to project the ideals Thomas Dye advocates (Adamolekun, 2006; Bhagwan & Bhushan, 2009).

Relating to the advocacy for politics-administration nexus in policymaking, underdeveloped societies besieged by personalisation of power usually have preference for politics-administration dichotomy model in decision-making. The politicisation of policymaking has been a major challenge for managing uncertainty in public decision-making in underdeveloped societies (Oyelaran-Oyeyinka, 2006). In Saasa's (2007) view, high rate policy uncertainty in African societies constitutes a major constraint to rational policymaking mainly because of the pervasiveness of incapacity of public administrators and overall public institutional weakness. The author recommends that African governments must take public personnel and human resource capacity development seriously to be able advance the power of bureaucrats in policymaking. To Ojajorotu (2018, p.6), the issue of non-cooperation between politics and administration in policymaking has to do with inability of public

administration apparatuses in Africa to modernise and radically move away from their colonial mentalities. He purports that the emergent post-colonial political executives in Africa continually maintain the bequeathed authoritarian and paternalistic orientations. Hence, the recommendations of the Nigeria APRM Country Self-Assessment Report (CSAR) National Programme of Action (NPOA) (2007) on deepening of ongoing public sector reforms. Amongst the recommendations is that African governments such as in Nigeria must make provision of adequate resources for equipping public services/servants and their ethical re-orientation with primacy.

Some scholarships on the necessity to promote ethical re-orientation of public administration and its personnel in Nigeria do exist (Eneanya, 2009; Adamolekun, 1983; Idode, 1989; *et al.*). Although, it is noteworthy that such scholarships exist not in limited number. In his thoughts Idode (1989, p.175) blames the failure of development administration (i.e. public policy) to bring about development in Nigeria on the absence of a leader that will deliberately “shift the balance of political forces” to favour more popular participation or democratisation of decision-making for development. In the contribution of the 2008 APRM Country Review Report No.8 of the Federal Republic of Nigeria (p. 279), Nigeria’s self-reliance on the throes of public policy can be achieved on one basis amongst others. The basis is to advance broad and deep participation of the public sector of society in public policy so as to anchor development on the resourcefulness of administrators whose influence on development no doubt has grown remarkable (also see Jinadu, 2008). But the challenge to entrenching bureaucratic inputs in policymaking in Nigeria to Adamolekun (2006) lay in reversing the poor and mediocre roles public/civil servants continually play in socio-economic development. The author suggests that a starting point to achieve effective and efficient politics-administration nexus in policymaking is to address “the serious uncertainty about how best to reconcile the merit principle” in civil service operations in general (*ibid*, p. 124).

Taken holistically, there is a broad-based push that the goal to advance constructive participation and cooperation of politics and administration in policymaking is worthwhile. Ultimately, acceptance of the politics-administration nexus model in policymaking is gaining ground as the global best practice in managing policy uncertainty. And it should become a

fundamental stratagem in policy science, good governance and part and parcel of regime character.

Theoretical Underpinnings

This study is anchored on an eclectic theoretical perspective developed around three premises: politics-administration theory and Max Weber's and Herbert Simon's bureaucratic and rational decision-making theories respectively. The study's eclectic theoretical orientation represents the neo-classical generalisations on rational decision making that a politics-administration policymaking nexus epitomises.

The politics-administration theory is a *posteriori* logic of the classical Wilsonian philosophy. Wilson Woodrow wrote in 1887 that administration lies outside the realm of political decision making (policymaking). Wilson Woodrow held that the technical competence and methodical nature of administration set it out from the "hurry and strife" that politics is associated with. Woodrow and his cohorts like Luther Gullick, Henry Fayol and Wilson Willoughby believe policymaking was the business of politics while administration's concern is policy implementation (Bhagwan & Bhushan, 2006). However, these classical thinkers did concede to some extent that administration also perform the role "to rescue executive methods from the confusion and costliness of empirical experiment" (Bhagwan, & Bhushan, 2006, p.18). But modern-day public administrationist reject the politics-administration dichotomy because it is "impracticable and undesirable" (Uwizeyimana, 2013). The established belief today is that administration partakes in policy formulation (Dye, 1998; Eriksson & Weber 2008; *et al.*). Critics of the politics-administration dichotomy philosophically think that administration's input is necessary to make existential output/outcomes of a policy not so much distorted of its original idealism. N. V. Gadgil as cited in Ojo (1970, p.89) notes that policy certainty is better served with the general mind (administration) in preference to the specialised mind (politics) in policymaking. To him, what is really needed for policy success is not the knowledge (desire/option) in details but the right approach and right perspective. Gadgil did add that a general mind, referring to administration, is far more important today especially when the ecology of policy circle is

experiencing radical, dynamic and revolutionary changes such as under climate change.

Herbert Simon argues that Charles Lindblom's incrementalism is not an effective way to mitigate adverse policy uncertainty because it is not borne of a comprehensive and rational decision-making process. According to Simon, certain steps were necessary to entrench rationality in a decision process (see Dror, 1968). The steps highlighted by Simon are: (1) the decision-maker naturally should have a policy preference or idea (i.e. ontological idealism) that should not be farfetched from society's aspirations. (2) He or she should evaluate alternative actions to the preferred policy. (3) Critically evaluate the preferred policy idealism against each of the alternatives relative to consequences. (4) Calculate the benefit-cost ratio of the idea and each of the alternatives in relation to society. (5) Select the most efficient policy direction from the idea and the alternative with high benefit and low cost ratio to society. According to Dye (1998, p.25), Simon believes that a decision that comes after the steps above is likely to be very rational than to decide on an issue by simply considering sunk cost. It can be induced to climate change mitigation from Simon's thesis that information (advice of administration) and understanding (specialised knowledge of policy environment/subject-matter, technocracy and methodology of implementation) and precision to ascertain risk of uncertainty is very indispensable to climate change management. By implication, Simon's model of rational decision making will achieve maximum social gain in climate change governance if policy-decisions derive from constructive co-ordination of knowledge and research of administration following the steps highlighted above. It is administration that can ably reinforce uncertainty reduction in climate change governance because of its research/knowledge into minute (i.e. policy alternatives) but important recesses of the policy environment cum society.

Max Weber's theory of bureaucracy has been a crucial focus of policy analysts because of the central role of administration in public policy (Rourke, 1969 & 1972; *et al.*). Weber's theory postulates that ideal-type bureaucracies are characterised by certain structural configurations for them to constitute a force to be reckoned with. These characteristics according to Blau and Meyer (1971, p.18-21) are (1) fixed tenure of office against arbitrary dismissal and clear-cut

division of labour; (2) organisation of positions/office is hierarchical; (3) operation is guided by clear-cut and written rules and regulations; (4) official engagements is based on formalistic impersonality not personalisation of office; (5) merit-based recruitment/promotion with strong consideration for technical competency; and (6) emphasis on the maximisation of organisational efficiency. Public/civil services expectedly represent the core organ of administration and are required to embody these characteristics to be able to deliver efficiency from a technical point of view. The bureaucratic theory is a recipe for imbibing knowledge in civil services built on the above characteristics. It is also a facilitator to entrench intra and inter organisational rationality in decision-making.

The consequence of our eclectic theoretical framework suggests that the inevitability of administration in policymaking with politics expressing almost equal power in the process will lead to better rationalisation of policy formulation. That is, policymaking is better serviced with an admixture of bureaucratisation and politicisation of the process. Equal measure contribution of politicisation and bureaucratisation in climate change policymaking will be beneficial as a risk reduction solution to high uncertainty, and conversely high rate production of intended consequences. And also that administration's inputs in climate change mitigation will yield better results in terms of managing uncertainties in the sector.

Research Method and Design

The methodological philosophy of the study is based on a foundationalist ontology and positive epistemology which is the nature of quantitative research method (Marsh & Furlong, 2002). This methodological orientation was deemed suitable for testing the two formulated hypotheses. Questionnaires were generated to elicit data that was statistically analysed. The questionnaire contained 26 questions in four categories distributed amongst Lagos State civil servants.

The formulated hypotheses are:

H-1: Public policy certainty accelerates with balance of power of politics and administration to make constructive contribution in policymaking to actualise the intended objectives of climate change governance.

H-2: The degree at which climate change governance attains legitimacy is a function of administration's role in policy implementation more than administrators' participation in climate change mitigation policymaking.

The questionnaire distribution demography to Lagos State civil servants is presented below:

Table 1: Questionnaire Distribution Demography to Lagos State Civil Servants

No.	Ministry	No. of questionnaire distributed	No. of questionnaire returned/% of distributed	Valid for testing hypothesis/% of returned
1	Agric. & Co-operative	20	15 (75%)	11 (73.3)
2	Commerce/industry	20	14 (70%)	10 (71.4%)
3	Education	20	17 (85%)	15 (88.2%)
4	Environment	20	17 (85%)	16 (94.1%)
5	Finance	20	13 (65%)	10 (77%)
6	Health	20	14 (70%)	10 (71.4%)
7	Housing	20	14 (70%)	12 (85.7%)
8	Justice	20	13 (65%)	12 (92.3%)
9	Physical Planning & Urban Development	20	15 (75%)	11 (73.3)
10	Science & Technology	20	14 (70%)	10 (71.4%)
11	Rural Development	20	14 (70%)	12 (85.7%)
12	Transportation	20	13 (65%)	13 (100%)
13	Water-front Infrastructural Devt.	20	15 (75%)	14 (93.3%)
14	Youths, Sports & Social Devt.	20	13 (65%)	12 (92.3%)
15	Taxation & Revenue	20	8 (40%)	8 (100%)
	TOTAL	300	209 (69.7%)	176 (84.2%)

Table 1 above shows the distribution of the questionnaires to the purposively sampled 15 Ministry/public policy arenas within the Lagos State Civil Service. 20 questionnaires were distributed to each of the Ministry/public policy arenas. Of the distributed 300 questionnaires, 209 were returned representing 69.7%. Eventually, 176 representing 84.2% of the returned questionnaires were found worthy for testing the formulated hypothesis.

The demographic representation of the 176 respondents is presented below.

Table 2: Demographic Representation of 176 Respondents

Variable/Class	Frequency	Percentage (100%)
Grade level: 12, 13, 14, 15 & above respectively	51, 49, 41 & 35 = 176	29%, 27.8%, 23.3% & 19.9% = 100%
Years in service: 5-10, 11-15, 16-20 & 20 years above	40, 62, 38 & 36 = 176	22.7%, 35.2%, 21.6% & 20.5% = 100%
Education: OND, HND/1 st Degree, Masters, Ph.D. & professional cert.	19, 79, 65, Nil & 13 = 176	10.8%, 44.8%, 37%, Nil & 7.4% = 100%
Sex: Male & Female	109 & 67 = 176	62% & 38% = 100%
Private sector experience: Briefly, fairly long time & not at all	57, 81 & 38 = 176	32.4%, 46% & 21.6% = 100%

Table 2 above shows that more males representing 62% constituted the greater number of respondents. Civil servants on grade level 12 (29%); those with 11 to 15 years of experience representing 35.2%; HND/1st degree holder constituting 44.8%; and 46% representing 81 of respondents with private sector experience were the highest for each category in the Table. The respondents were chosen using the purposive/judgmental sampling technique.

Testing of Hypothesis

Data for testing H-1 is presented below:

Table 3: Data for Testing H-1

Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Total
62	43	29	28	14	176
66	53	17	25	15	176
128	96	46	53	29	352

Defining Frequency Average Formula

$$F_o = \frac{(f_c)(f_r)}{N}$$
 i.e., f_c = frequency total for column; f_r = frequency total for row; N = total subject

$$\frac{128 \times 176}{352} = 64; \frac{96 \times 176}{352} = 48; \frac{46 \times 176}{352} = 23; \frac{53 \times 176}{352} = 26.5; \frac{29 \times 176}{352} = 14.5$$

$$\text{Therefore } \chi^2 = \sum \frac{(f_o - f_e)^2}{f_e}$$

Where f_o = observed No. in a given category; f_e = expected No. in that category (i.e. f_o above; \sum =summation of ratio; and χ^2 = Chi-square.

$$\begin{aligned} & \frac{(62 - 64)^2}{64} + \frac{(43 - 48)^2}{48} + \frac{(29 - 23)^2}{23} + \frac{(28 - 26.5)^2}{26.5} + \frac{(14 - 14.5)^2}{14.5} \\ & + \frac{(66 - 64)^2}{64} + \frac{(53 - 48)^2}{48} + \frac{(17 - 23)^2}{23} \\ & + \frac{(25 - 26.5)^2}{26.5} + \frac{(15 - 14.5)^2}{14.5} \end{aligned}$$

$$0.06 + 0.52 + 1.57 + 0.08 + 0.02 + 0.06 + 0.52 + 1.57 + 0.08 + 0.02 = \chi^2 = 4.50$$

$$\text{Df } (R - 1)(C-1) = (2 - 1)(5 - 1) = 4 @ .05 \text{ level of significance} = 9.488$$

Decision = Since the calculated chi-square value 4.50 is less than the table value Df =4 at .05 level of significance which is 9.488, we therefore accept that public policy certainty accelerates with balance of power of politics and administration to make constructive contribution in policymaking to actualise the intended objectives of climate change governance.

Data for testing H-2 is presented below:

Table 4: Data for Testing H-2

Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Total
18	33	29	38	58	176
29	18	21	55	53	176
47	51	50	93	111	352

Defining frequency average formula

$\frac{F=(f_c)(f_r)}{N}$ i.e., f_c = frequency total for column; f_r = frequency total for row;
 N = total subject

$$\frac{47 \times 176}{352} = 23.5; \frac{51 \times 176}{352} = 25.5; \frac{50 \times 176}{352} = 25; \frac{93 \times 176}{352} = 46.5; \frac{111 \times 176}{352} = 55.5;$$

$$\text{Therefore } \chi^2 = \sum \frac{(f_o - f_e)^2}{f_e}$$

Where f_o = observed No. in a given category; f_e = expected No. in that category
 (i.e. f_o above; \sum =summation of ratio; and χ^2 = Chi-square.

$$\begin{aligned} & \frac{(18 - 23.5)^2}{23.5} + \frac{(33 - 25.5)^2}{25.5} + \frac{(29 - 25)^2}{25} + \frac{(38 - 46.5)^2}{46.5} \\ & + \frac{(58 - 55.5)^2}{55.5} + \frac{(29 - 23.5)^2}{23.5} + \frac{(18 - 25.5)^2}{25.5} \\ & + \frac{(21 - 25)^2}{25} + \frac{(55 - 46.5)^2}{46.5} + \frac{(53 - 55.5)^2}{55.5} \end{aligned}$$

$$1.29 + 2.21 + 0.64 + 1.55 + 0.11 + 1.29 + 2.21 + 0.64 + 1.55 + 0.11 = \chi^2 = 11.60$$

Df (R - 1)(C-1) = (2 - 1)(5 - 1) = 4 @ .05 level of significance = 9.488

Decision = Since the calculated chi-square value 11.60 is greater than the table value Df = 4 at .05 level of significance which is 9.488, we therefore reject the notion that the degree at which climate change governance attains legitimacy is a function of administration's role in policy implementation more than administrators' participation in climate change mitigation policymaking.

Analysis of Results and Discussion

The findings from the tested hypotheses reveal that bureaucratic input in climate change governance policymaking is significant to curtailing uncertainty of climate change mitigation policies in Lagos. The result of hypothesis one agrees with the communiqués of all the Climate Change Summits organised by the

Lagos Government. It establishes that politics-administration dichotomy was what obtained in Lagos region. And this policymaking culture built on politics-administration dichotomy has been counterproductive to entrenching efficacy to expose possible policy uncertainties in climate change mitigation and adaptation in Lagos at the policymaking stage. A good example is the stubbornness of politics in mitigating climate threats which can be deduced from the Lagos State waste management policymaking. The imbroglio in Lagos State over how and who should preside over the state's policymaking towards how waste disposal can help to curtail side effects of climate change animates the problem of politics-administration dichotomy of Lagos State. The state's Environment Report-Lagos (2010) Action Plan for Solid Waste Management (Refuse Collection- Medium Term, 2 years plan) was geared towards more private sector participation and investment.

In tandem with the above plan, Governor Akinwunmi Ambode of Lagos (2015 - May 29, 2019) pursued vigorously a public-private partnership initiative with a foreign company, Visionscape, as part of its reform programme for solid waste collection/disposal to ultimately curtail climate change (Ltv online, 2019). Media reports indicated that Gov. Ambode had signed 135million dollars (about ₦85billion) in line with this initiative. Meanwhile, the failure of that vision only came through denunciation by the State House of Assembly, another emblem of politics. Not one report hit the public space on the view of the Lagos State Waste Management Authority (LAWMA), the administrative agency of the state on waste disposal, thus implying its relegation in the scheme of things. This implies that the political policymakers during Governor Akinwunmi Ambode's regime did not consider nor consult LAWMA's views on this policy that is momentous to mitigating and adapting Lagosians to climate change. The above-mentioned policymaking setup represents how politics-administration dichotomy aggravates uncertainty of climate change policy outputs and outcomes in Lagos State.

Hence, balanced politics-administration cooperation in policymaking to mitigate climate change in Lagos is a potent risk reduction mechanism of uncertainties, unintended consequences and deleterious outcomes in the policy governance of the sector. Similarly, hypothesis two reveals that bureaucrats' involvement in climate change policymaking is as much necessary and

important as administration's role in implementing authorised decisions aimed at climate change adaptation and mitigation in the Lagos region. This result is empirically true from the continued flooding Lagos State experiences during rainy seasons against the backdrop that political values overwhelmingly usually set the values in CC policymaking of the state. Otu (2010) notes that a cordial relationship between the Nigerian Metrological Agency (NIMET) which is the administrative sector of the environment ministry and the political master at the federal and state level has benefits forecast of climate change induced rains. This collaboration goes a long way to lessen floods associated with climate change in states like Lagos.

Specifically in Lagos, the sustainability of the Tree Planting eco-friendly programme instituted under the Bola Ahmed Tinubu administration (1999-2007) derives from the massive involvement of administration in the formalisation process of the programme (Anongo, 2012). Another eco-friendly project that helps in moderating climate change in Lagos is the Lagos Green Initiative. This project is being implemented by the Lagos State Parks and Gardens Agency (LASPARK). According to Ajike and Anjolajesu (2016), the Lagos Green Initiative has been sustainable more by the cordial cooperation between politics and administration in the entire policy circle of the project. In the same vein, the overt none contribution of public bureaucrats in all the climate change summits organised by the Lagos State Government lay credence to the result of hypothesis two. None of the contributors by way of lecture(s), delivered research paper or discussions in the summits relate to the roles/contribution of administration in climate change governance policymaking.

Conclusion

From the foregoing discussion, policy initiatives conceived by elected officials and fine-tuned with knowledge and perspective of administrators is likely to result in certainty of policy ends. This reasoning resonates Balogun's (1983, p.269) notion of "scientificism" which advocates for a more participatory approach in governance. The study concludes that climate change governance in Lagos State will remain hollow as long as only political considerations and interests reign absolutely in the policymaking to mitigate changing climate. What will augur well as a risk reduction tool of uncertainty in climate change

governance in peripheral developing socio-political states like Lagos is to strengthen the bureaucratisation of policymaking. There should be conscious effort to entrench bureaucratisation and politicisation of policymaking in equal measures in these kinds of social systems. Hence, instituting a dynamic cooperation and constructive engagement between politics-administration in climate change policymaking will be helpful to abate uncertainties of sanctioned mitigation programmes against bad climate. Specifically, such a policymaking culture will drastically curtail policy illegitimacy and negative outcomes and reduce risk of bad climate as well as drastically decrease policy mistakes, miscarriages, unintended consequences and failures.

Recommendations

In the light of the discussion and result of the tested hypotheses, the study makes the following recommendations:

First, elected cum appointed political executives must eschew hegemony over administration in climate change governance policymaking. The political official should imbibe the culture of consultation, cooperation and partnership with bureaucrats in the process of formulating public policies in general.

Second, as a follow-up to the first recommendation, the need to institute credible leadership recruitment cum electoral process is sacrosanct to instituting the politics-administration nexus model in CC policymaking. It is strongly held that credibly and popularly elected persons who are most likely to be intelligibly open-minded are likely to appreciate and imbibe the spirit of consultation and collaboration with bureaucrats in the process of formulating policies.

Third, developing a knowledgeable and strong bureaucracy that can both withstand and whittle the domineering tendencies of political leaders in policymaking require the building of capacity and capability of public administrators. It then implies that civil services and their servants and including the administrative culture must revolve around the Weberian principles, Simon's rational decision making and the notion of politics-administration cooperation. The deepening of these theories by administration will change its mind-set into a knowledge producing and advice rendering instrumentality that is purpose-led machinery in policy formulation.

Fourth, evidence abounds that adequate funding of capacity enhancement of administration will advance the proposed dialectical process for climate change governance policymaking and the policy sector in general. Funding of more participatory politics-administration networking, discussion and communication exchanges will serve to facilitate constructive inputs of public administrators in policymaking. Such a measure will also encourage harnessing the intellectual knowledge capital of administration by political officials in policymaking to curtail the high rate of policy uncertainty.

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CHAPTER

21

THE ROLE OF NEIGHBOURHOOD HOUSES IN COMMUNITY SERVICE AND SUSTAINABLE DEVELOPMENT IN MAKOKO, LAGOS STATE

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Abstract

This paper is a report of an ongoing community development intervention in Makoko Community, Yaba, Lagos State. This study began in June 2018. The objectives of this component of the study and intervention are to identify the felt needs of the residents in Makoko, explore their perception of how these felt needs can be addressed and introduce the Neighbourhood House Model of Community Development to the community. This study drew on the participatory action research method (PAR) and on the theory of Asset Based Community Development made popular by John McKnight and Jody Kretzmann. This theory challenges the traditional approaches to community. The study found that the main needs in Makoko community in 2018 are light and town hall. In addition, the residents think that the government will provide the facilities in their community. The study also found that the Neighbourhood House model of community development introduced into the community is working. The evidence for this is that the community is now drawing on the assets in the community to provide light and town hall for the community. This study concludes that the Neighbourhood House model of community development has the potential to help the community participate effectively in community services that will help achieve some of the Sustainable Development Goals (SDGs). This study recommends that the Federal, State and Local governments should support the Neighbourhood House model of community development in Nigeria. Most importantly, social work departments should integrate the settlement house model of social work into the social work curriculum in Nigeria.

Keywords: Community, Development, Settlement House, Neighbourhood House, Sustainable Development Goals.

Introduction

This paper discusses the role of neighbourhood houses in community service and sustainable development in Makoko community. The paper has nine sections: Makoko Community, The History of the Settlement/Neighbourhood House Movement, Settlement/Neighbourhood Houses and Community Service, Sustainable Development Goals (SDGs), Methodology, Findings, Conclusion, Recommendations and References.

Makoko Community

Makoko community is a suburb of the University of Lagos. The settlement is partly on water and land; it has a shifting population of about 100,000 by estimation. The major occupation of Makoko residents is fishing and trading. It is highly characterised as a slum settlement of high need where poverty stares at you straight in the eye. The riverside settlement of Makoko is located in Yaba Local Government Area of Lagos metropolis. Makoko lies within the Southeastern part of Metropolitan Lagos. Makoko community sprang up in the early nineteenth century. The settlement is surrounded by mass of abundant Akoko trees, wild swamp vegetation and animals. Makoko is often described as a hiding place for people from Africa. This suggests that migrants from Niger Delta, Benin, Togo and Ghana, occupy the community. However, the Ilajes and Eguns dominate the community. There are also Yorubas with few Igbos and other ethnic groups. Land ownership is vested in two families namely: the Oloto and Olaiye family.

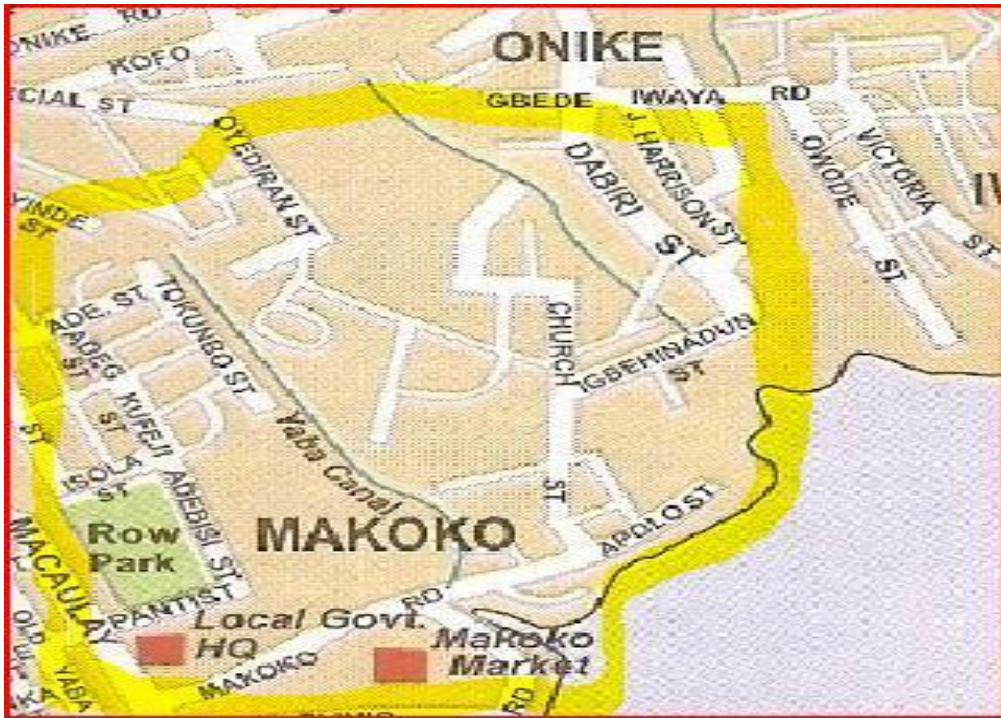


Figure 1: Map of Yaba Local Government Area Council showing Makoko Community

Problems

The community is one of the poorest in Lagos State and has all the characteristics associated with poverty and unemployment: high maternal mortality rate, youth restiveness, child abuse and insecurity. The settlement's remote location around the lagoon coupled with the poor status of its inhabitants has made the community suffer from serious environmental and infrastructural deficiencies. Severe flooding is a major challenge of Makoko especially during the wet season (Oduwaye, *et al.*, 2010). Other challenges include inadequate shelter and services (lack of a safe water supply, sanitation, and drainage; inadequate solid waste management; use of low-grade domestic fuels; health risk from overcrowding and the occupation and degradation of the environment, inadequate access roads, schools, health care facilities and housing. In this community, many boys and young girls have dropped out of school. They roam the streets without any hope of a brighter future. Many children are often absent

from school for reasons ranging from inability to pay one levy or the other or buy one book or the other.

The socio-economic characteristics of the residents, quality and type of buildings and environmental situation of the study area suggest that they are at the mercy of the government and have little or no powers to alleviate their present situation.

Previous Interventions

In 2013, a firm of architects and builders – NLE supported by the United Nations Development Programme (UNDP), African Adaptation Programme, a UN agency and Henrich Boll introduced the idea of building a school to uplift the standard of living of the residents in the community. In 2017, two Non-governmental organisations: The Social and Economic Rights Action Centre (SERAC) and Shinning Hope for Communities (SHOFECO) engaged in a partnership to uplift the community. The collaboration was designed to consolidate SERAC'S redevelopment structure to address the social infrastructural challenges of Makoko.

Recently, the Lions Club donated a 2.5- KVA generator, water borehole a block of eight toilets and bathrooms to the community. At other times several public spirited individuals and NGOs have donated packs of food and medicine to the people for which they are usually very grateful. Despite these efforts to reshape and develop Makoko, the general outlook of the community has remained almost the same. This justifies why a Neighbourhood house approach to developing this community is necessary. Evidence of successful transformation of this community will be transferable to other similar communities, which abound in Nigeria.

The History of the Settlement/Neighbourhood House Movement

Settlement houses were important reform institutions since the late nineteenth century. The first settlement house was the Toynbee Hall, which opened in 1884 in an East London Slum. It became the first University Settlement House and a model for others across Britain, United States, Canada and other parts of Europe. Rev. Samuel Barnett, a Church of England vicar and his wife Henrietta founded the settlement in response to the pervasive urban poverty and social

problems occasioned by industrialisation and the realisation that sustainable social change would not be accomplished through existing individualised and piecemeal approaches to the problems of poverty.

The idea behind the settlement house approach was to establish a place where future leaders of the nation might reside and volunteer in East End of London, ‘bringing them face to face with poverty, and giving them the opportunity to develop practical solutions that they could take with them into national life’. Consequently, the Universities of Oxford and Cambridge provided opportunities for students and academics to reside, research and advocate for reforms (RRR) in the settlement house in the East End of London, while providing a variety of educational and social services to residents of the neighbouring communities. They also organised clubs, societies, recreational activities, University Extension lectures and conferences on social problems (Wagner, 2006).

In 1886, Glasgow University Settlement was established while Stanton Coit opened the Neighbourhood Guide on the Lower East Side of New York. In 1884, the University of Oxford established the Oxford House Settlement. In 1889, the Universities of Cambridge established the Cambridge House while; Jane Addams and Ellen Gates Starr opened the Hall House in Chicago. In 1891, Charles Zueblin opened the Northwestern University Settlement. In 1895, the University of Manchester established the Manchester Settlement in 1982 (Trolander, 1969, 1973, 1975). In 1905, Edinburgh University was established and in 1911, University of Bristol established the Barton Hill Settlement. There are about 46 settlements located across Finland and organised under the Finnish Federation of Settlement Houses which was formed in 1918. The settlement movement is international and globally organised by International Federation of Settlements and Centres.

The term “Neighborhood center” (or in British English, Neighbourhood Centre) is often used now to refer to similar institutions as settlement houses. The first Neighbourhood house established in Vancouver was Alexandra House; it started as an orphanage in 1894 and later became British Columbia’s first Neighbourhood House. In Nigeria, the first Neighbourhood is Umuebu Neighbourhood House founded by Sunday Ofili Ibabor in 2010.

Contemporary Neighbourhood Houses share the original beliefs of Toynbee Hall. Neighbourhood Houses believe in working to create a new society by learning and sharing cultures as well as predicaments. They provide a framework for community members with aspirations to improve their community by helping them to identify and realise their goals. They serve as a centre of information and resources that foster leadership and build strong relationship by bringing people together through their children as well as a set of shared community values. In essence, Neighbourhood Houses play an essential role in community development. A community is considered a functioning one when it has a set of services to meet the different needs of the community. For instance, a library, a school, a clinic, religious institutions, low cost supermarkets and parks meet different needs in the community. When such services are available in the community, less people would leave the community to satisfy their needs. This has a further effect of developing the community economically and socially. A Neighbourhood House provides opportunities for community members (community leaders, gatekeepers, men, women and young persons) to engage in conversations and actions directed at meeting the diverse needs of the community.

Settlement/Neighbourhood Houses and Community Service

Settlement/Neighbourhood houses are non-profit, community-based organisations that provide community residents' with a wide range of social and educational services. According to the United Neighbourhood House (UNH) of New York 1998 Annual Report:

In 1886, the first settlement house in the United States, University Settlement on the Lower East Side, opened its doors to all New Yorkers – immigrants and citizens, rich and poor, students and workers, young and old. The pioneering settlement houses taught adult education and “Americanization” classes, provided schooling to immigrant children, organized job clubs and offered after-school recreation and library programs. Settlements today, in their warm and welcoming environments, still teach immigrants English and children to read. They also connect youth and adults; and offer support to seniors. The mission of settlements also includes community improvement and social change to reduce poverty.

The University Settlement operates more than a dozen programmes for all ages. Some of the programmes are as follows: An Early Childhood Centre that offers group day care, early head-start and family day care. An after-school programme that provides the community students with recreational and tutorial activities. Adult literacy programme that provides bilingual classes for Spanish, Chinese and Bengali speaking residents. Talent Search Programme that provides guidance for high school students. A youth summer programme that provides day camp for children and intensive academic and work experience for teens. The senior centre that provides a breakfast, lunch programme, delivers meals to home-bound residents and offers a variety of classes. The community jobs network that provides public assistance to recipients in paid internships and helps them find employment. An arts programme that manages a performance space and a mental health clinic. The Children's Intensive Care Management programme provides comprehensive services to the families of children in crisis.

According to Miu and Sin (2011) modern urban communities have lost their capacities to handle all kinds of challenges because of weakened solidarity among residents. In the midst of the challenges of urban communities, the eight neighbourhood centres in San Francisco have been carrying on the development tradition of the settlement house movements. They have actively engaged in revitalising and rebuilding the community by creatively integrating the service delivery and direct-advocacy approaches.

Brown (1995) identified seven crucial roles of settlement houses in community development. These include: offering response service programmes; serving as an extended living room or a second family; recruiting staff and volunteers from the neighbourhood; promoting local leadership/professional development; building the community's institutional infrastructure; stabilising the community; promoting a vehicle for community education and problem solving and providing a forum for community voice.

Brown (1995) notes that a settlement is part of community life; it's not just an agency but the heart and soul of the community. Contemporary Neighbourhood Houses share the original beliefs of Toynbee Hall. Neighbourhood Houses believe in working to create a new society by learning and sharing cultures as

well as predicaments. They provide a framework for community members with aspirations to improve their community by helping them to identify and realise their goals. They serve as a centre of information and resources that foster leadership and build strong relationship by bringing people together through their children as well as a set of shared community values. In essence, neighbourhood houses play an essential role in community development. A community is considered a functioning one when it has a set of services to meet the different needs of the community. For instance, a library, a school, a clinic, religious institutions, low cost supermarkets and parks meet different needs in the community. When such services are available in the community, less people would leave the community to satisfy their needs. This has a further effect of developing the community economically and socially. A neighbourhood house provides opportunities for community members (community leaders, gate keepers, men, women and young persons) to engage in conversations and actions directed at meeting the diverse needs of the community.

Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs) is the United Nations universal set of goals, targets and indicators aimed at ending poverty, injustices and protection of the environment by 2030. United Nations member states are expected to draw on the SDGs to frame their agendas and political policies between 2016 and 2030 (United Nations, 2015). The SDGs were officially adopted at a UN Summit in New York in September and became operational in January 2016. There are 17 goals and 169 targets.

1. End poverty in all its forms everywhere.
2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.
3. Ensure healthy lives and promote well-being for all at all ages.
4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
5. Achieve gender equality and empower all women and girls.
6. Ensure availability and sustainable management of water and sanitation for all.
7. Ensure access to affordable, reliable, sustainable and modern energy for all.

8. Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all.
9. Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.
10. Reduce inequality within and among countries.
11. Make cities and human settlements inclusive, safe resilient and sustainable.
12. Ensure sustainable consumption and production patterns.
13. Take urgent action to combat climate change and its impact.
14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development.
15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation, and halt biodiversity loss.
16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective accountable and inclusive institutions for all levels.
17. Strengthen the means of implementation and revitalise the global partnership for sustainable development.

Methodology

Data presented in this paper was obtained by applying the Neighbourhood House model of community development to Makoko. This model draws on the Participatory Action Research (PAR) method and Asset Based Community Development (ABCD) approach to community development. The Neighbourhood House model has six steps that allow residents in the community to participate in the local area planning to meet the needs of their communities. The steps are:

1. Involving the community.
2. Identifying community needs and aspirations.
3. Determining appropriate programmes and services to meet the needs in the community.
4. Partnering with other organisations, groups, associations and societies in the community.
5. Delivering quality programmes and services in the community.

6 Evaluating the effectiveness of the interventions in the community including programmes, practice and governance.

Steps 1 - 4 and 6 make up the community-strengthening component of this model while Step 5 represents the cumulative outcome of the developmental work.

In the context of the Neighbourhood House, community development is a process that brings people together to connect, learn and contribute in their local community through social, educational, recreational, and support activities using an inclusive community development approach. Neighbourhood Houses are inclusive and welcome people from all occupations. The inclusive community development strategy of Neighbourhood Houses creates opportunities for individuals and groups to enrich their lives through connections they might not otherwise make, strengthening networks and building social capital. This approach enables communities to identify and address their own needs. The process starts from the assumption that communities have existing strengths and assets that make them part of the solution. Drawing on the strengths and assets of the community is consistent with the Asset-Based Community-driven Development (ABCD) approach. This approach draws on four foundations:

1. It focuses on community assets and strengths rather than problems and liabilities.
2. It identifies and mobilises individual and community assets, skills and passions.
3. It is community-driven – “building communities from the inside out.”
4. It is relationship driven.
(Kretzmann, 2010; Kretzmann & McKnight, 1993; Mathie & Cunningham, 2003).

The Participatory Action Research methodology involves a spiral of self-reflective cycles of the following:

- Planning a change;
- Acting and observing the process and the consequences of the change;
- Reflecting on the processes and consequences;
- Replanning;

- Acting and observing again;
- Reflecting again and so on.

(i) Data Collection and Intervention - Planning

On 24th June, 2018, Dr. Ibobor visited Makoko Community and had an initial discussion with the Community Youth Leader.

Between July and September, 2018; Dr. Ibobor had several discussions with some members of staff of the Department of Sociology leading to the constitution of University of Lagos-Makoko Neighbourhood House Committee made up of Dr. Oyefara as Team Leader, Dr. Ibobor, Mr. Okocha and Miss. Makinde as members.

On 25th September, 2018, a three-man team of committee (Dr. Ibobor, Mr. Richard and Miss. Makinde) visited the Makoko community and the following findings were recorded in the process of identifying the immediate needs of the people.

Faith Based Associations

It was spotted that the community was surrounded by lots of Faith Based Associations ranging from churches, mosques and spiritual centres. The following churches were found in the Makoko community: The Redeemed Christian Church of God, Celestial Church of Christ, Presbyterian Church, All Saint Church, Deeper Life Bible Church, Assemblies of God Church (located at Apollo Street Makoko), Mountain of the Word of God Miracle Ministries, Alhaji Surajudeen Mosque as well as several Islamic schools.

Schools

There are several private nursery and primary schools for children in Makoko. There is only one government primary school in Makoko.

Economic Activity

Fishing is the basic economic activity of residents of Makoko community. However, there are different forms of income generating activities in the community including several small and medium Enterprises (SMEs) scattered all over the community such as cyber cafés, sport betting shops, electronic

shops, foodstuff businesses, paraga shops, road side eateries, fashion designer shops, household and domestic items shops.

Health Centre

There are several pharmacy stores in Makoko and one major health care centre: Olayemi Health Centre, no government health facility. The nearest government health care facility is located at Oyingbo.

Security

There is only one Police Station in Makoko Community.

Recreation Centre

There is only one small recreation centre attached to the Police Station in Makoko community.

(ii) Acting and observing the process and the consequences of the change

On 25th September, there was a need assessment meeting with the leaders of the youth in the community. The findings from this assessment meeting suggest that the problems of the community were lack of electricity, lack of water, flooding and bad roads, while the most important need of the community was a new electricity transformer. According to the youth leader, the followings are the problems of the community.

The Makoko community needs a new transformer, town hall centre, health centres and industries so that residents can be employed and eschew from criminality. We only have one bakery where some women exchange their labour for meagre wages in order to survive with their children. We also have traditional health Centres but we need hospitals and clinics in our community. We are ready to support anyone that can provide these amenities for us in the forthcoming election 2019. What we need most is the transformer. For a very long time since the former transformer got bad, people of the community had been without light apart from a few privileged ones who could afford the generator. Water is a problem but not a big problem of the community because there are many private bore holes in the community that support with water. (Youth Leader, Makoko Community, September, 2018).

On 26th September, there was another need assessment meeting with the Baale of Makoko community in person of Alhaji Chief Ibrahim Emiloju Aladetan. The findings from this assessment meeting suggest also that the most important need of the community was a new electricity transformer. According to the Baale of Makoko community, the community needs the following:

1. New Transformer
2. Bore Holes
3. Good Schools
4. Town Hall Centre
5. Health Centre

On 2nd October, 2018, the committee engaged the leaders of the executives on how to address the problems identified in the previous meetings. At this meeting the leaders of the youth were introduced to the concept of Asset Based Community Development (ABCD):

1. Focusing on community assets and strengths rather than problems and liabilities.
2. Identifying and mobilising individual and community assets, skills and passions.
3. Building Makoko community from the inside out.
4. Driving this intervention on the basis of relation.

The participants discussed several possible options that would fix the problems of the community and arrived at the following decisions.

All the participants agreed to:

1. Involve the community in this intervention.
2. Partner with other organisations, groups, associations and societies in the community to fix the problems in the community.
3. Involve all the political aspirants contesting for a position in the 2019 elections.
4. Involve all the wealthy persons associated with the community.
5. Write a letter to the Chairman of Yaba Local Government to assist in providing them with the transformer. The letter was sent and it worked.

In December, 2019, the Chairman of Yaba Local Government Council: Hon. Kayode Adejare Omiyale provided a 500KVA transformer to replace the faulty 300KVA.

(iii) Reflecting on the processes and consequences

On 15th January 2019, the committee engaged the leaders of the youth to reflect on the processes used to get the new transformer and its impact on the residents in the community.

According to the youth leader of Makoko community,

“Residents in Makoko community are very happy with the new development in their community. They can boast of nothing less than 18hours of constant power supply in the community”.

Findings

The study found that the main needs in Makoko community in 2018 are light and town hall. In addition, the residents think that the government will provide the facilities in their community even if they do nothing. The study also found that the Neighbourhood House model of community development introduced into the community is working. The evidence for this is that the community is now drawing on the assets in the community to address the life challenges in the community and enhance their well-being. Their collective effort has produced the much needed transformer in the community and the residents are happy about what they have obtained by themselves and for themselves. By drawing on the assets in the community, they have accomplished Sustainable Development Goal (SDG) 7: Ensuring access to affordable, reliable, sustainable and modern energy for all.

Conclusion

This study concludes that the Neighbourhood House model of community development has the potential to help communities participate effectively in community services that will help achieve some of the Sustainable Development Goals (SDGs). Makoko community is now in the forefront of the communities implementing the Sustainable Development Goals (SDGs) in Nigeria. The energy and commitment of residents in Makoko community will continue to drive the development of their community.

Recommendations

There are many communities in Nigeria waiting for community development practitioners to help promote the development of their communities. The knowledge from Makoko is transferable to other communities, therefore, community development practitioners and the government should attempt to adapt the neighbourhood house approach to community development.

Second, this study recommends that the Federal, State and Local governments should support the Neighbourhood House model of community development in Nigeria. Most importantly, social work departments should integrate the settlement house model of social work into the social work curriculum in Nigeria.

Third, the government should support the development of neighbourhood houses in Nigeria. What is needed is the energy and commitment of residents and or workers in the local community. Through their efforts, they can develop a network of preventive, community-based social service programmes.

Finally, the neighbourhood house model of community development is a new concept in Nigeria. Therefore, the media should help in promoting the visibility of the Neighbourhood House approach to community development. The media should run documentaries on their activities, and provide free or subsidised coverage for their activities.

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CHAPTER

22

AFFORDABLE AND EQUITABLE CITY AS A VERITABLE TOOL FOR SUSTAINABLE LAGOS REGION

Akanmu, A. A., Salisu, U. O., Fasina, S. O., & Adewale, P. O.

1.1 Introduction

Since time immemorial, humans have always preferred to live in a place where his basic needs such as food, clothing and shelter could easily be met, and it is in this context that the ancient man became a wanderer until such place was found and secured for his survival. This became the beginning of human settlement at the rudimentary level as denoted by farmstead and homestead from which modern cities evolved, grew and developed. Since the ancient period to date, people tend to migrate to cities, most especially regional centres to satisfy their socio-economic and political aspirations. This assertion was attested to by Christaller (1933), Losch (1939) and Berry (1970) among other scholars who established that the existence of cities was anchored on the people deriving advantages from it, and along with the efficient management of personal, social and economic relationships in a spatially concentrated mode.

The city, as a functional term is being used to denote urban area which evolved through the multiplication of points and human activities that occupy large expanse of territorial space. In this context, Jiang and Miao (2014) opined that ‘there were no cities aside scattered villages once upon a time’. Hence, the origin of cities and towns, according to Barcelo *et al.*, (2012) was from a social process involving the multiplication of points where people concentrate. This makes cities to be conceptualised entities which benefit from their political control and social dominance through the exchange and

accumulation of wealth from several distant areas that bring about the flow of materials, people and information. Before the 18th century, cities had remained important nodes with huge human concentrations and activities as prevailing indigenous technology was able to satisfy the needs. As a result, early cities were not only commercial and trading points, but also political nodes reflecting the extent of authority at the disposal of the managers which were strengthened by territorial conquest and wealth accumulations. This was also affirmed by Kehinde (2016) who expressed that 'early people were itinerants, who transverse most cosmopolitan city that was not only secured but also accommodating and prosperous in the late 19th and 20th centuries'.

However, the Industrial Revolution had a significant impact on the prominence and emergence of modern cities in addition to the rapid transformation of indigenous cities. Specifically and at a global level, the development and growth of cities such as London, Perking, New York, Berlin, Los Angeles and most Australian cities in the 19th century were facilitated and influenced by the industrial revolution which started in England around 1750 (Melvinget *et al.*, 1974; Aloba 2004). From this period to date, the needs and efforts to conquer distance and geographical barriers have been intensified through continually seeking of greener pastures in cities, which in turn makes cities across the globe to witness an upsurge in population, territorial expansion and socio-economic activities.

The advent of the colonial administration in most African countries including Nigeria enhanced the status of many traditional cities while facilitating the emergence of new ones and also brought many regional centres into the limelight (Gbadamosi and Akanmu, 2019). It is in this context that various ordinances, proclamations and constitution most especially after the 1914 amalgamation of the Southern and Northern Protectorates of Nigeria specifically, brought cities such as Lagos, Ibadan, Enugu, Kano, Port Harcourt, Kaduna and the likes into prominence as regional centres. Therefore, these cities became a veritable platform for attracting rural migrants from various parts of the country and the hinterlands. Moreover, the quest not only to satisfy but also exceed necessities of life continued to influence the influx of various age groups to different cities, most especially

regional centres believed to be flourishing economically, industrially, commercially and administratively.

Surprisingly, many hopes are being dashed in cities as prior intentions and expectations of migrants from all facets of life failed to materialise since twin issues of affordability and equitability are either rarely, or inaccurately factored by those seeking to tap perceived resources of city's region. Also, global attention is being accorded to cities in various ramifications. For instance and recently, the expiration of timeline for the Millennium Development Goals (MDGs) in 2015 paved way for new global targets which were encapsulated in the Sustainable Development Goals (SDGs) with the overall motive of enhancing livings.

Goal '11' which focuses on making cities and human settlements inclusive, safe, resilient and sustainable is among the critical components of the SDGs. With this, every factor that does not promote inclusiveness, safety, resilience and sustainability have to be properly taken care of to make cities safe and sustainable for the populace. At present, living in cities not only in Nigeria but across the world are becoming much more expensive and unaffordable with varying characteristics. Hence, the need to factor affordability and equitability in the Lagos region become a veritable consideration in achieving sustainable Lagos region among the comity of regions in the country and the world. It is against this backdrop that this study focuses on the Lagos region which is a substantial part of the defunct Western Region Nigeria comprising of Lagos, Ikeja, Badagry, Ikorodu, Epe divisions and some parts of Ogun State comprising of Ado-Odo/Ota, Ifo, Obafemi Owode and Sagamu Local Government Areas (FRN, 2006).

1.2 Lagos Regional Settings

The spatial location of Lagos region covers areas beyond Lagos State that includes all the twenty (20) Local Government Areas of Lagos State (Ikeja Division - Agege, Alimosho, Ifako-Ijaye, Ikeja, Kosofe, Mushin, Oshodi-Isolo, Shomolu; Lagos Division – Apapa, Eti-Osa, Lagos Island, Lagos Mainland, Surulere; Badagry Division– Ajeromi-Ifelodun, Amuwo-Odofin, Ojo, Badagry; Ikorodu Division – Ikorodu; Epe Division – Ibeju- Lekki, and Epe) and four Local Government Areas of Ogun State (Ado-Odo/Ota, Ifo,

Obafemi Owode and Sagamu). It is a continuous built-up area of Lagos from the Atlantic Coast spreading eastwards, westwards, and northwards beyond the boundaries into Ogun State with coverage areas put together at 153,540 hectares out of which 130,700 hectares are covered by Lagos State while the remaining 22,840 hectares spread across the earlier identified areas of Ogun State (George, 2002 and FRN, 2006) and with population estimated at over 21 million in 2017. However, the region is characterised by obvious population and developmental pressure.

The region is characterised by Yoruba speaking part of the country with close socio-cultural and ethnic affinity and remains not only the commercial and industrial hub of the country but has been a first-class city since 1919 Township classification (Oyesiku, 1998). Prior to the discovery of crude oil in Nigeria in 1956, Lagos region had a robust economy which was characterised by agricultural produce and pacesetting function in the provision of infrastructural facilities and services for the populace. The region remains the centre of an industrial and commercial nerve centre of the country with abundant economic and human resources as a gateway to nations' economy as well as being blessed with major rivers and beaches in addition to the Atlantic Ocean and Lagoon which make the region economically and industrially characterised.

2.1 Sustainable Development Goals as a Spreading Phenomenon

Governments, donor organisation, international agencies and Scholars have been making efforts to enhance human settlements through deliberate actions and programmes over the years. With the declining quality of the built environment and accompanying grave repercussions to every member of the society, global efforts are renewed towards improving quality of lives in the built and maintenance/retention of the integrity of natural environment through such dedicated programmes. According to Akinloye (2018), the failure of the MDGs to achieve its developmental objectives at its expiry in 2015 led to the development and implementation of the Sustainable Development Goals (SDGs) programme. The SDGs programme has however been widely accepted as laudable for its wider approach to global development and sustainability. The Sustainable Development Goals is classified as the 2030 Agenda for Sustainable Development by setting out the

vision, principles and commitments to a fairer and more sustainable world for all. As a successor to the Millennium Development Goals (MDGs) which were in place from 2000 to 2015, SDGs which was adopted by the United Nations General Assembly in September 2015 run from 2016 to 2030 with the goals of the United Nations' 'Transforming our world (Morton, Pencheon, and Squires, 2017).

The Nigeria government has planned a transition strategy to achieve the Sustainable Development Goals (Ugwu and Ogunremi, 2019). Specifically, Nigeria like other countries adopted the UN 2030 Agenda for Sustainable Development as a vehicle for freeing humanity from abject poverty, securing a healthy planet for future generations, and building a peaceful, inclusive society as a foundation for ensuring a life of dignity for all. The 2030 Agenda, according to the Federal Government of Nigeria (2017) is both ambitious and transformational with a set of 17 integrated and indivisible Sustainable Development Goals which are broken down to measurable targets and indicators. The Agenda is not only a shared plan to transform the world by looking after the welfare of the people within fifteen years but has become a spreading phenomenon across the globe.

2.2 Affordability and Equitability Characteristics of Cities

The first-ever affordable and equitable human settlement recorded in the history of man was the Garden of Eden (Holy Bible-Gen. 2:15) and it was through this Garden that subsequent settlements cum cities emerged and developed. Many cities in Africa and Nigeria have been in vogue before the colonisation of Africa by Colonial masters. It was in this context that Jiboye (2011) observed that urbanisation is not a new phenomenon in Africa since cities such as Lagos, Kano, Ibadan, Cairo, Johannesburg, Kinshasha and Addis Ababa among numerous others have grown to become large metropolitan urban areas even before the countries were colonised.

While the urban growth rate of the African continent which is at nearly 4% per annum remains one of the most rapid in the world (Badejo, 2014), Oyesiku (2014) observes that the Nigeria cities are among the fastest-growing cities in the world. This reflects a trend of growth that puts strains on the available resources to the extent of questioning the affordability, equitability

and sustainability of the cities in a regional context. Specifically, city development and urbanisation in Nigeria, in particular, is becoming unprecedented most especially due to Local Government and State creations that characterised the country since 1966. These creations not only transformed most traditional cities but also brought many into the limelight. It is in this view that Olomola (1999) opined that the creations of states and Local Government resulted in many towns and cities not only becoming political headquarters but also facilitating new growth centres overnight. Hence, it is in this regard that other cities including Lagos, Ibadan, Port Harcourt, Enugu, Kano, Calabar and other State capitals have been growing sporadically and rapidly as commercial and administrative centres within various geographical zones in the country.

Despite the fact that affordability and equitability are two realistic sides when expressing living in contemporary cities, yet affordability and equitability characteristics of cities are two salient issues capable of conditioning comfortable and worthwhile living for residents and visitors as well as guarantee city sustainability in the regional setting. For instance, one effect of the relationship between cities as economic centres and regional economic development has been their continuous growth in size, population and power (Oyesiku, 2014). This is in addition to the continuing effect of the emergence of diseconomies of scale which is almost beclouding the essence of living in regional centres. This dis-economy has not only dislocated but also dashed the hope of many city residents since indices of affordability in the city are coined in monetary terms denoting the costs and prices associated with living in cities. Access to (and reach of) amenities such as health, education, security, safety, land/space, housing and transport among others, are major parameters that not only determined the affordability and equitability of city but also influence the choice of people in making decisions of where to live in a region.

These are also extended to prices attached to commodities and daily essentials that make living worthwhile in the city. It is important to stress that 'access' does not guarantee the 'reach of those items and others unmentioned' in cities since prices and costs do vary across different segments of city, while also, rate, income, expenses and costs of enjoying those items equally vary from

city to city that forms larger region. In contrast, equitability does reflect the fairness and justice in the distribution of, and access to facilities, opportunities, governance and services that aid livings in the city aside guaranteeing the actualisation of necessities of life for residents and visitors.

From a global view, a cursory examination of the Worldwide Cost of Living Survey of global cities unveiled the extent of affordability (and by extension, equitability) in cities across the world. This survey compares more than 400 individual prices of commodities that the paying customer is charged across 160 products and services. The Economic Intelligence Unit (2015) used variables such as food, drink, clothing, household supplies, personal care items, home rents, transport, utility bills and private schools among others, and compared with a base city of New York which has an index set at 100 in the survey. It was revealed from the survey that Singapore remained the world's most expensive city, while Caracas remained the cheapest cities to live in among numerous cities included in the exercise.

The inference from this survey is that Singapore and other nine cities as shown in Table 1 are not only expensive to live in but also unaffordable to the vast majority of the low-income group in the society since the prices and cost of daily essentials are far beyond the purchasing power of the common man. This is also related to the extent of equitability in the distribution of incomes, wealth and resources in various strata of the cities which are uneven.

Table 1: Most and Least Expensive Cities of the World

City	Country of location	WCOL Index NY=100'	Rank	Remarks
Singapore	Singapore	116	1	
Zurich	Switzerland	114	2	
Hong Kong	Hong Kong	103	3	
Geneva	Switzerland	107	4	Ten most expensive cities in the world
Paris	France	101	5	
London	United Kingdom	100	6	
New York	United States of America	99	7	
Copenhagen	Denmark	99	8	
Seoul	South Korea	99	8	
Los Angeles	United States of America	99	8	
Lusaka	Zambia	41	133	
Bangalore	India	42	132	
Mumbai	India	43	131	
Almaty	Kazakhstan	44	127	Ten cheapest cities in the world
Algiers	Algeria	44	127	
Chennai	India	44	127	
Karachi	Pakistan	44	127	
New Delhi	India	45	126	
Damascus	Syria	46	124	
Caracas	Venezuela	46	124	

Source: Economic Intelligence Unit (2015 and 2016)

2.3 Affordability and Equitability Characteristics of Southwestern Cities in Nigeria

The study of major cities in Southwestern region of Nigeria using parameters that included colonial background, economic, infrastructure and industrial characteristics revealed the extent of their affordability and equitability of these observed cities for their residents and investors. Using prices of foodstuffs, house rents, transport charges, public transport, utility, school fees, health bills and other household essentials as variables for measuring affordability of cities, while parameters used for measuring equitability included good urban governance, legal protection, levies/tax, infrastructure, urban management, income and employment opportunities.

The interim reports revealed among others that Lagos and Sango Ota which covers over 90% of Lagos region, remained the most expensive cities in the region, while Abeokuta, Ibadan and Akure are moderately affordable and Osogbo and Ado-Ekiti are most affordable (Table 2). The study also revealed the ranked of equitabilities of the cities in like manner and that, the extent of equitable distribution of wealth, infrastructure and resources do always have far-reaching implications on the extent of affordability of city for residents and sustainability.

Table 2: Most and Least Expensive Cities in Nigeria Southwestern Region

City	State	Rank	Remarks
Lagos	Lagos	1	Least affordable
Sango/Ota	Ogun	2	
Abeokuta	Ogun	3	Moderately affordable
Ibadan	Oyo	4	
Akure	Ondo	5	
Osogbo	Osun	6	Most affordable
Ado-Ekiti	Ekiti	7	

3.1 Constraints to Achieving Affordable and Equitable Cities in Lagos Region

Achieving affordable and equitable cities appear to be a herculean task in this century, most especially in developing countries and most importantly in the Lagos region. This is as a result of multi-faceted developmental challenges and unfair disparities confronting cities and residents at different scale despite collective and calculated efforts being made by the Federal Government at national levels and state governments in the region since the last five decades. Both levels of government have been an advocate, and partner in the implementation of Millennium Development Goals and Sustainable Development Goals as key instruments for enhancing liveable human settlements in general and by extension, expected to foster affordable and equitable cities.

At the national level, frameworks which include National Housing Policy, National Building Code, National Economic Empowerment and Development Strategy and National Urban Development Policy in addition to lofty programmes such as National Poverty Eradication Programme, Family

Supports Programme, 7-Point Agenda, Transformation Agenda and recently, N-power programme among others were aimed at improving the standard of living of the people, and most importantly, tailored to address pressing issues relating to affordability and equitability in cities in particular, and other categories of human settlements in general. It is, therefore, disheartening that these programmes not only failed to achieve expected results but are incapable of ushering in affordable and equitable cities, most especially in the Lagos region. Hence, the sustainability of the region is at stake and as such, needs attention to make it comfortable and worthwhile. However, among the numerous constraints to the achievement of affordable and equitable cities in the Lagos region are;

First, the global fall in oil price at the international market is a major factor that erodes the hitherto affordability and equitability enjoyed by residents in many cities. It is not news that this situation has practically weakened the foreign exchange and returns to investments in many oil-dependent and mono-commodity countries. In Nigeria in particular, this has led to poor financial allocations from the centre to the state governments as such, revenue had drastically reduced to the extent that, urban provisions, in particular, are seriously affected aside from the incapacitation of many state governments in fulfilling monthly financial obligations to workers who are mostly urban residents. The common man is feeling the socio-economic heat most as prices of goods and commodities in urban centres are far beyond the reach of residents, while also, there is geometric depletion in the life savings of people. Hence, the workers who have to cater for their domestic and household needs, as well as other basic services now, live in misery as most ingredients for comfortable living in cities are far beyond their reach.

Contributing to the global fall in oil price is the extent of extreme poverty in most cities and urban centres. This is extremely alarming as the proportion of residents living below \$1.9 poverty line per day continued to increase geometrically. This situation has not only incapacitated the economic capability and stimulus of city residents but is also widening the socio-economic disparity between the rich and poor in urban centres, most especially in developing nations. As a result, the popular middle class in the society is fast disappearing in most cities; a situation that is making

cosmopolitan cities like Lagos, Ibadan, Abuja, Port Harcourt, Kano, Kaduna, Warri and other state capitals much more expensive to live, and to the extent that, the price of daily essentials are beyond the reach of most residents.

Next to poverty is the menace of impoverishment in cities and large urban centres due to the misplaced priority of governments and city managers. That governments and city managers are embarking on white elephant projects that have no immediate and direct benefits to city residents is not an overstatement in many developing countries. For instance, capital projects such as the construction of new airports, flyover, underpass, interchange, New Secretariat Complex, government house and other similar unnecessary projects for political reasons, and at variance to feasibility and viability reports continued to add to the frustration of cities residents as the affordability and equitability in cities are consequently affected. Such projects are more or less, an additional burden to city dwellers in particular and the entire population at large since they have no economic returns and values to the society except increasing the cost of living in the cities and widening the gap between the rich and the poor.

Compounding the menace of urban poverty is the multiple tax and levy policies being implemented by many city governments which are not commensurate with the level of service and infrastructure to guarantee affordable and equitable living. These taxes and levies adversely impacted city residents as the implementation of such in many developing nations are at variance to international best practices and usually skewed towards the low-income earners represented by civil and public servants who usually have such tax deducted from their salary source. All these are in no doubt, modern means of disempowerment and impoverishment of city's residents since they serve as an avenue to reducing the purchasing power of city dwellers most of which are low income earners while the high-income earners are usually under-taxed.

Lastly, poor physical planning of cities and urban centres contributed in huge measure to the various menace of threats being witnessed in cities and large urban centres in many developing countries. Strategic infrastructure issues relating to the coordination of residential land supply and services as well as

the supply of public utilities and services to residential areas, mode of service supply, servicing and urban form are addressed by town planning practice and instrument. Such involve an overview of the principal utility infrastructure that influences urban development in human settlements such as water availability and supply, sewerage, drainage, energy sources and supply, telecommunications and the availability of land (Obateru, 2004). However, modern planning instruments such as development plan, land subdivision plan, infrastructure development plan and efficient framework for urban management are either lacking or poorly implemented in many developing nations. Therefore, with many cities and urban centres in developing countries, and most especially in Africa displaying and maintaining traditional physical planning characteristics, modern urban amenities and infrastructure that could foster affordable and equitable cities are lacking.

4.1 Consequences of Unaffordable and Inequitable Cities

Unaffordable and inequitable cities are extremely poisonous to peaceful national and urban growth. The four major consequences of such, among numerous others, are:

- ❖ High rate of insecurity and crime: Unaffordable and inequitable cities breed insecurity and crimes through insurgency, violent extremism and militancy as well as other social vices such as homelessness, fear of crime and breeding of unsafe society that can easily compromise safety and peaceful living. This is as a result of the wide gap between the rich and poor as well as socio-economic discriminations in the distribution and provision of essentials across various segments of the cities.
- ❖ Poverty and impoverishment: With life in urban centres and cities becoming worst due to astronomical rise in urban poverty (Badejo, 2014); unaffordable and un-equitable city is capable of not only promoting, but also fostering poverty and impoverishment. The high cost of livings in such city and uneven distribution of amenities that could make life more meaningful to the residents shall add to deplorable conditions of residents in their quest to survive at all costs while satisfying the basic necessity of life will be a great alternative cost.

- ❖ **Disenfranchisement:** Disenfranchisement in this context is the inability of city dwellers to make inputs into various socio-economic and political decisions in their environment. With wide gap and dichotomy that characterised the un-equitable city, experiencing good urban governance will be a mirage for the vast majority of residents as socio-political exclusion would continuously be experienced by the residents due to absence of inclusiveness in decision making.
- ❖ **Malnutrition and under-nutrition:** With the cost of household items and daily necessities of residents on high, there shall be a high rate of malnutrition and under-nutrition in such city as prices of food items and other consumables will be unaffordable to the residents. Hence, hunger and starvation shall be a routine experience for the peasants and low-income groups therein.

5.1 Conclusion and Recommendations

This chapter has examined affordable and equitable cities, and also, made a veritable incursion into the world cost of living index which highlighted ingredients for making the city not only affordable but also equitable for the residents. Therefore, affordability and equitability of cities have been examined from the global, continental and national context. However, the issue of affordability can be concluded to revolve around the cost of living in the cities and income levels of residents. The income level of residents in this regard is a function of employment opportunities available in the cities and the prompt payment of wages and income which defined and influence spatial decisions of persons to be living (or not living) in a particular city.

Besides, equitability which is derivable from legal perspectives ensures that not only every layer of cities in the region but also every resident in cities should have equal and unhindered access to basic amenities and essentials that will make living worthwhile irrespective of social, economic or political affiliations and status. The study concluded that affordability and equitability are a very essential catalyst for the sustainability of the Lagos region for dwellers and investors. Therefore, affordable and equitable cities are capable of guaranteeing comfort, safety and productivity aside from satisfying the aspirations of the residents. Since life is expected to be enjoyed and eventful

in cities, the following are among the strategies recommended that can facilitate affordable and equitable cities in the Lagos region:

- ❖ **Wealth and income redistribution:** Wealth and income redistribution is necessary to bridge the gap between the rich and the poor in the region as this shall return the middle-class level by minimising the existing gap between the rich and poor in the society in addition to improving the purchasing power of residents of cities.
- ❖ **Enabling environment for investment:** Enabling environment for investment towards boosting industrial development and job creation will go a long way in enhancing affordable and equitable cities. Such an environment will facilitate both direct and indirect flows of investments in various sectors of cities as well as creating more productive employment opportunities for residents.
- ❖ **Efficient and effective public transport system (Option of light rail and trams):** One of the major factors that compound the stress of city residents most especially in the Lagos region is the quest for fast and response functional mobility. With the ever-increasing price of energy and most especially, petrol and diesel being used by vehicles, the need to embrace shared-ride denoted by efficient public transport is essential. Light rail, trams and trolleybuses of public transport mode being a collective and shared-ride transport, reduces the cost involved in modern mobility aside from minimising pollution resulting from combustion process thereby enhancing the purchasing power of residents in the cities. As a result, public transport enhances affordability and equitability of living in a city.
- ❖ **Good urban governance:** The issue of urban governance is persistently reoccurring most especially, in developing nations of the world and Lagos, in particular, has already keyed into it. In this context, governance means a more cooperative way of government where state and non-state institutions, public and private sectors take part and often cooperate in public policy formulation and implementation. Therefore, other components of the Lagos region have to embrace good urban governance as an indispensable mechanism to achieve equitable and affordable cities. Urban governance assures that political, social, and economic priorities are based on broad consensus in the society, while also, the voices of the poorest and the most vulnerable are heard in

decision-making over the allocation of development resources. It is through good urban governance that inclusiveness and democratic norms are entrenched in the administration of the city for decision making towards enhancing well-being. By this, there is a need for the recognition and organisation of urban poor as equal partners in urban political and economic life most especially, in a budget decision, financing practices and participatory upgrading, planning and design of basic public services among others.

- ❖ Efficient Physical Planning mechanism: Efficient physical planning framework and mechanism will go a long way in achieving affordable and equitable cities in the Lagos region. Since Lagos is now a model in physical planning mechanism and instruments, other cities in the region need to adopt this mechanism in consideration to their peculiar socio-physical and economic realities. This will no doubt, ensure harmonious relationship between settlements, public utilities, facilities and services through protection of water resources; consideration of alternative disposal technologies for wastewater; awareness of the greater need for environmentally sensitive areas; consideration of alternative funding mechanisms for water and other infrastructure; provision of services will facilitate the development of nodes as an extension of growth in urban areas; implementation of the development programme as a means of allocating priority between development fronts based on a broad range of criteria.

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CHAPTER

23

IMPLICATIONS OF CIVIC ACTIVISM AND POLITICAL PARTY AFFILIATION ON SUSTAINABLE GOVERNANCE IN NIGERIA

Fakanbi, Kehinde Ernest

Abstract

The logic underpinning the interrogation of a topic like this stems from the various lackluster performances of political office holders, who solely assume that, positive changes can only be notched up, only when citizens operate through the platforms of political parties in Nigeria. It is trite and admissible that, for a citizen to pull substantial and consequential effects in the governance of his state or country as the case may be, such must operate through a political platform which is in sync with our constitution. However, considering the lack of ideology that has hallmarked political parties in Nigeria, policy somersaults by each successive administration, and the money bags with stolen money that sponsor political parties, who end up being given the opportunity to be the party's flag bearers has invariably made a mockery of people with good intentions, who join political parties to make a mark and move the polity to the next level. In recent times, civil activism via street protests by civil society organisations have proved to be more potent in moving the nation forward than the plethora of electoral promises that are jettisoned no sooner the politicians assume power. Various civil society groups rose to the occasion to conscientise the electorates on the corrupt practices that marred the government of Goodluck Jonathan.

The issue of social justice is very key to sustainable governance, and this can be frontally tackled through civic activism. Politicians are wont to dismiss civic activism through protests and demonstrations as the handiwork of oppositions. Without these efforts however, certain wrongs would not have been righted. It took the brave demonstration of the Niger Delta Militants to compel the

government and oil multinationals to be more civil in the creeks. Civic activism forced the government to address the issue of the abducted Chibok Girls with the needed seriousness, various agitations of civil society groups have led to the dismissal of or resignation of corrupt and ineffectual government officials. Despite government's clamping down on civil society groups' their importance in engendering good and sustainable governance cannot be over-emphasised. The objective of this study is to, peer searchlight on the incorrect notion that, citizens can only participate in politics only via political party membership. Data for the study was sourced from secondary data. The result of the study showed that, when citizens organise themselves under a formidable and non-pecuniary oriented civic society groups, sustainable governance will be achievable. Moreso, sustainability in governance can be achieved not by mere governance, but by concerted efforts of civil society groups who keep governments on their toes. The study recommended an amendment of the constitution to allow for individual candidacy in elections.

Keywords: Civil Activism, Nigeria, Political Parties, Sustainable Governance.

Introduction

Political party is one of the important institutions in a competitive democracy (Omodia (2010:65). To also say that political parties are the most critical institutions in any democratic experience is stating the obvious. This is in view of the fact that, political parties remain the platform through which politicians are recruited into elective positions and consequent upon elections, the work of political parties still continue. Little wonder, Yagboyaju (2012:54) links the relationship between political parties and democratic sustenance to that of the umbilical cord and the foetus. In other words, the role that political parties play in the enthronement of democracy and its sustenance cannot be over emphasised, more so, that these roles are constitutional. Omodia (2010: 65) submitted that political parties serve as an index through which the democratic governance could be compared in states, in that structure and operation of party politics tend to serve as measuring rod for determining the fragility or otherwise of democratic system (Omodia, 2016: 65). In Nigeria however, Omodia, went further to assert, that ethnicisation of politics, poor political leadership, excessive westernisation of the concept of democracy, lack of party ideology have all made a mess of the input of political parties in Nigeria's democratic practice especially in the Fourth Republic. This therefore

necessitated the role being played by civil society groups in conscientising the government on the need to do the needful and be responsible and responsive.

In Nigeria's fourth republic, civil society groups have played such important roles that no one can afford to relegate them to the background in the skim of things. (Muhheb, 2016: 365) concurred that Nigeria is not in short supply of vibrant platforms for independent mass action in relation to government programmes and policies. It must be emphasised that civil society groups have been alive to their responsibilities in Nigeria particularly since the advent of democracy in 1999. Since strong, responsive and responsible civil societies constitute a strong plank that holds democracy in place the world over, the case of Nigeria cannot be different. Sodaro *et al.*, (2004) submitted that, democracy in Nigeria, just like every other system, requires a strong civil society to engender an all-inclusive governance system. This reinforces the imperativeness of civil societies to the enthronement and sustenance of democracy. The study therefore interrogates which reinforces democratic practice more, is it civil activism or political party affiliation. The paper is divided into five divisions, following the introduction of the conceptual framework, followed by theoretical framework, analyses of political party and civil society in Nigeria, then conclusion and recommendations.

Conceptual Framework

Civil Society

That the concept of civil society is not new is a statement of fact. The notion civil society Frimpong observed can be attributed to Adam Ferguson (1723-1816). He was a Scottish Historian and Philosopher. He saw civil society groups playing critical and useful roles in the corrupt practices of the then feudal system which unfairly appropriated land to a few privileged people during the feudal era. Adam Ferguson traced the history of civil society to the Ancient Greece, with the likes of Thomas Paine and George Hegel who were indeed among the earliest scholars to have adumbrated the notion of civil society as a space that is parallel but separate from the state. But in recent times, civil society has gained so much currency, and in the opinion of Thang, this popularity is due to globalisation, adoption of democracy as a system of government, advancement in telecommunication, and economic integration

(Thang, 2013: 957). This study will like to adopt the definition of civil society as offered by Larry Diamond. He defined civil societies as the realm of organised social life that is open, voluntary, self-generating and at least partially self-supporting (Diamond, 1999). This goes to show the neutrality of civil society's activities from government. In other words, they occupy the space between the government and the people. Civil societies are not being sponsored by any governmental body and in this, lies the beauty of the group. Frimpong (2017) averred that they are a group that are neither in the state nor private sector, but are engaged in public activities that are aimed at advancing the interests and values of their members or the society at large. In other words, they can be described as non-state actors. In the opinion of Court *et al.*, (2006), they can be regarded as:

Any organisation that works in the arena between the household, the private sector, and the state, to negotiate matters of public concern, CSOs include a very wide range of institutions and operate at many different levels, including the global, regional, national and local. Civil society includes NGOs, community groups, research institutes, think tanks, advocacy groups, trade unions, academic institutions, parts of the media, professional associations, and faith-based institutions.

The above gives an umbrella perspective of what a civil society is or can be. Civil society can be set up to deal with an avalanche of issues ranging from economic, cultural, information, educational, developmental, issue-based and civic (Diamond, 1999). It must be emphasised that civil society excludes political parties, this much was emphasised by Matsuura (20010 when he observed that civil society excludes political parties and business organisations. Civil societies only agitate to get their programmes accepted and adopted by the government by they are not interested in usurping power. In the opinion of the Centre for Civil Society of the London School of Economics, it defines civil society as:

The area of un-coerced collective action around shared interests, purposes, and values. In the theory, its institutional forms, are distinct from those of the state, family and market, though in practice, the boundaries between the state, civil society, family, and market are

often complex, blurred, and negotiated. Civil society commonly embraces a diversity of spaces, actors, and institutional forms, varying in their degree of formality, autonomy, and power. Civil societies are often populated by organisations such as registered charities, development non-governmental organisations, community groups, women's organisations, faith based-organisations, professional associations, trade unions, self-help groups, social movements, business associations, coalitions and advocacy groups.

Political Party

The place of political parties cannot be over-emphasised in a democracy. Since party politics is coterminous to democracy, it can be concluded therefore that both work *pari passu*. It is therefore a statement of fact that, a democratic political system cannot exist without political parties. On the basis of this, Price (1975) submitted that, without political parties, electorates will be impotent. Political parties therefore, are very essential ingredients in a democracy. Political parties have been conceptualised by different scholars. Agbaje (1999:195) cited in Olorungbemi (2014) sees political parties as the group of persons bonded in policy and opinion in support of a general political cause, which essentially is the pursuit, capture and retention, for as long as democratically feasible, of government and its offices.

Sustainable Governance

A World Bank (1992) conceptualised governance as the manner in which power is exercised in the management of a country's economic and social resources for development.

We can have good governance or bad governance. The document further averred that, good governance is preferred to bad governance because it fosters strong, but sharply delimited states capable of sustained economic and social development and institutional growth. Whereas, bad governance is to be avoided like a plague because it undermines all efforts to improve policy making and to create durable institutions. This study therefore uses, sustainable governance to mean the ability of a country to develop the capacity to actively respond to current socio-economic and political challenges plaguing the country.

Good governance has also been defined by Arowolo and Aluko (2012) as the capacity to formulate and implement sound policies and the respect of citizens and the state for the institutions that govern economic and social interactions. They went further to assert that, it is the extent to which, a government is perceived and accepted as legitimate, committed to improving the public welfare and responsive to the needs of the citizens, competent to assure law and order and deliver public services, able to create an enabling environment for productive activities and equitable in its conduct (Sharma, 2007). Good governance has also been conceptualised by United Nations Development Programme (UNDP, 1997) as the exercise of power through a country's economic, social, and political institutions in which institutions represents the organisational rules, provide and protects the rights and wellbeing of the citizens. Musa (2016:8) submitted that, Nigeria has not been able to achieve this, due to the following reasons:

- Weak institutional framework
- Regional and ethnic politics
- Weak judicial system and absence of clear policy implementation to ensure the independence of the judiciary in political matters
- Underfunding of electoral bodies
- Poverty and high level of illiteracy
- Lack of political education
- Political apathy and lack of electoral integrity.

Daniel Schraad-Tischler and Laura Seelkoopf (undated) observed that, sustainable governance indicators (SDI) address socio-political issues facing the highly developed states of the OECD and the EU at the beginning of the 21st century. Since sustainable governance touches on how to achieve sustainable policy outcomes and imbue political decision making with a long term consequences or effects in mind.

Daniel Schraad-Tischler and Laura Seelkof contended forth that, government should act with long-term consequences in mind, in such a way that, policy outcomes should be generated now such that, it would improve the quality of life for the present and future generations without placing an unfair burden on future generations.

The principles of sustainable governance is violated, when there is mounting public debt, unequal allotment of participation opportunities and the wasteful exploitation of natural resources all of these have negative implications for present and future generations. According to these scholars, these are what are called sustainable governance indicators which aim to support Organisation for Economic Cooperation and Development (OECD) and the European Union (EU). Recall that the OECD are 34 countries with market economies that work with each other as well as other 70 non-member countries to promote economic growth, prosperity and sustainable development. There are three indicators, which are policy performance, democracy and governance.

Policy Performance

The Policy Performance Index

In this category, according to Daniel Schraad-Tischler and Laura Seelkopf, in order to assess the individual policy areas comprising the economic policies category, the following questions are addressed:

- Are economic policies applied on the basis of a coherent institutional framework, thereby enhancing the country's international competitiveness?
- How successful are government strategies in addressing unemployment and increasing labour-market inclusion?
- To what extent do the country's tax policies promote social equity, competition and positive long-term state-revenue prospects?
- To what extent are budgetary policies underpinned by principles of fiscal sustainability?
- To what extent do research and development policies contribute to the country's capacity for innovation?
- Does the country actively contribute to the effective regulation and stabilisation of international financial markets?

Under the democracy index, the SGI criteria by which government systems in the OECD and EU are derived from those dimensions identified by democratic theory are most significant, and contain key indicators by which the quality of democracy can be assessed. In total, 15 qualitative indicators,

comprising four criteria, are used to evaluate the fabric of democracy in each country.

Criteria include the following:

- The electoral process, which includes the rules governing political-party ballot qualification and voter registration as well as the issue of party financing; for the first time, this edition of the SGI also evaluates direct-democracy structures and participation opportunities;
- The public's access to information, which can be measured by the extent of media freedoms and media pluralism;
- Civil rights and political liberties; and
- The rule of law, including legal certainty, the judicial review of laws and the prevention of corruption.

In the Governance Index

According to Daniel Schraad-Tischler and Laura Seelkopf (Undated) Governance Index – an international comparison of reform capacities.

In a context of rapidly changing environments and growing complexity, it is ever more important for policymakers (and the institutions through which they act) to respond quickly and resolutely while bearing in mind the long-term impact of actions taken today. It is therefore important that any assessment of sustainable governance look not only at policy outcomes, a country's underlying democratic order and the rule of law, but also at the political leadership's capacity to steer processes with success. Just how effective are OECD and EU leaders in managing strategic processes, and how well do they address and resolve the problems they face? The SGI's Governance Index answers these questions using a broad and innovative set of indicators. These indicators permit a contextualised assessment of the extent to which the governments of OECD and EU states – working together with other institutions and social groups in the course of democratic decision-making processes – are able to identify pressing issues, develop appropriate solutions and implement them efficiently and efficaciously (Daniel Schraad-Tischler and Laura Seelkopf Undated)

History of Civil Society in Nigeria

The history of civil society in Nigeria is as old as the Nigerian state itself. This is due to the fact that, prior to gaining independence, civil society groups have been making spirited efforts to agitate for one thing or the other. From the days of the *Egbe Omo Oduduwa*, which later mutated to a political movement, which strongly agitated for independence, we also had the *Jamiyar Mutanin Arewa*; they engaged in community works, and also helped in one humanitarian work or the other in the community (CIVICUS, Civil Society Index, 2007). In the first republic, variegated protests were organised by student bodies, labour unions against obnoxious policies in the first republic (Omede and Bakare, 2014). Despite the militant nature of military rule, CSOs did a lot in Nigeria, even under the military. In the opinion of Wisdom, Harrison, and Ebeku, (2011:5) the likes of National Democratic Coalition (NADECO), Civil Liberty Organisation (CLO), and Campaign for Democracy (CD) were among the CSOs that fought the military to a standstill to ensure that democracy was installed in Nigeria. Even in Nigeria's fourth republic, CSOs still continue to play vital roles in the economy. Starting from the regime of Olusegun Obasanjo, the National Civil Society Coalition against Third Term (NACATT) which was led by Bamidele Aturu, ensured that the ambition did not see the light of the day. In concert with NACATT were also Peoples' Problems and Solutions (PPS) organisation, the public outcry of these organisations helped to thwart that criminal agenda (The Punch, March 12, 2006). Under Goodluck Jonathan, the efforts of CSOs in kicking against the sudden removal of subsidy in the first week of 2012 cannot be forgotten in a hurry. They organised rallies across major cities in Nigeria, in order to make the government to reverse its decision. Prominent among such CSOs was the Save Nigeria Group (SNG). In recent time, the kidnapping of the Chibok girls, saw the Bring Back Our Girls group springing into action in order to force the lukewarm government of Goodluck Jonathan to ensure the release of the abducted girls.

History of Political Party in Nigeria

The first political party in Nigeria was the Nigerian National Democratic Party founded in 1923. It was formed by Chief Herbert Macaulay, at this stage, elections were restricted to Lagos and Calabar. It required the electorates to be resident in Lagos and to have at least \$100 as income

(Brown, 2013: 174). In 1936, the Nigerian Youth Movement (NYM) was formed, this was the first nationalist movement that was formed in Nigeria. Members of this movement included: Chief Obafemi Awolowo, Ernest Ikoli, Nnamdi Azikiwe, Samuel Akinsanya and K.A. Abayomi. In 1951 the Action Group was formed, before this time, the Northern Peoples Congress NPC was formed in 1946, The National Council of Nigeria and Cameroun was formed in 1944, and it was an Igbo dominated party. The minorities were integrated into the Nigerian politics with the establishment of the United Middle Belt Congress (UMBC), which was headed by Joseph Tarka.

In the First Republic, we had the Action Group (AG), National Council for Nigeria and Cameroun (NCNC), and the Northern Peoples Congress (NPC). In the Second Republic we had the Unity Party of Nigeria (UPN), headed by Chief Obafemi Awolowo, National Party of Nigeria (NPN) headed by Alhaji Shehu Shagari, Nigeria Advance Party (NAP), headed by Alhaji Aminu Kano; Nigeria National Congress (NNC) headed by; Alhaji Waziri Ibrahim. In the third republic, which has been described as an aborted republic, we had the National Republican Convention (NRC) and the Social Democratic Party (SDP) they had Alhaji Bashir Tofa and Chief M.K.O Abiola as their presidential candidates. In between the third and Fourth Republic, we had a failed transition Programme where we had some political parties that were regarded as five leprous fingered political parties by Bola Ige. They include: Congress of National Consensus, CNC, Grassroot Democratic Movement, GDM, National Conscience Party of Nigeria, NCPN, Movement for Democratic Justice, MDJ, and United Nigeria Congress Party, UNCP. It was under the regime of Sanni Abacha and they all adopted Abacha as their presidential candidates. In the Fourth Republic, which commenced in May 1999, we have the People's Democratic Party, PDP and the All Progressive Congress that went through some metamorphoses before becoming APC. We have several other political parties that are registered by the Independent National Electoral Commission (INEC).

Civil Society and Sustainable Development

It has been observed that a vibrant civil society is a sine qua non to the sustenance of any nation's development (Omede, and Bakare, 2014:206). Invariably, this goes to show the importance of civil society groups in the

overall development of a democratic process. In the contention of Omede and Bakare, (2014:206) they are referred to as agents of development. They do this, by ensuring that, they serve as correctional mechanism to check and balance the activities of government to avoid wasteful spending, misappropriations and embezzlement of funds, to determine and put priority on the needs of the people (Omede and Bakare, 2014). This is because to a large extent, civil societies are closer to the people and they have nothing to fear in conveying same to the government. It is clear and conspicuous that CSOs do not fight for sectional interests. Sectional in the sense that, the membership of these CSOs sometimes cut across ethnic divide. They help to keep the governments on their toes in doing the needful for the people. Chazen (1996: 282) cited in Moses and Okolie, (2015) contended that in the third world, these groups have been very effective in controlling flagrant abuses of state powers, helping to hold leaders accountable to their citizens and helping to establish the foundation for long-lasting democratic government. Several civil society groups have championed good causes that have the capacity for sustainable governance. One of such is the Save Nigeria Group (SNG) led by Pastor Tunde Bakare, when fuel subsidy was removed in January 2012 by the regime of Goodluck Jonathan, it collaborated with sister organisations to vehemently resist the criminal removal. Bring Back Our Girls (BBOG) gave a good account of itself during the abduction of the Chibok girls, much of what the opposition party did was just to make a noise without pragmatic steps to put the government on its toes.

Political Party and Good Governance

Ideally, political parties are formed to contest power with a view to governing. This no doubt, makes it a Zero-sum game. Most political parties often showcase good manifestoes in the build up to elections, only to get to power and jettison all they have promised the people. Political parties often engage in some intra-party squabbles that often derail them from achieving their set goals. Most times, the formation of political parties often determines its directions and its trajectory. In Nigeria for instance, in most cases, it the money bags that sponsor political parties and well intentioned members of the political parties may be denied the opportunity of representing the party, due to lack of money. When such candidates who do not have the financial strength to sponsor themselves are sponsored by some well-heeled

individuals, they end up becoming their godfathers and they see their commitment in the party as an investment, which must be recouped. This no doubt is diametrically opposed to the attainment of good governance. Jega (1994) conceptualised good governance as a desirable social and political processes through responsible leadership, accountability, selflessness, discipline, promotion of ethical norms and promotion of the citizens' well-being. In a situation, where political parties are sectional in nature, where there are intra and inter party conflicts, good governance would have been sacrificed. This is more so in a heterogeneous state like Nigeria. Political parties tend to reflect the sectoral cleavages in the country (Moses and Okolie, 2015). In some cases, it is the personal ambition of the political office holders that detract him from offering good governance to the people. Politicians assassinate themselves in their bid to retain power, aside from causing untold hardship in the land. Since most politicians see political contest as a do or die affair. Jostling for political post has therefore become a veritable threat to the survival of the system (Moses and Okolie, 2015). More so, that politics has become a big business in Nigeria in recent times. All of these make good delivery of dividend of democracy very difficult. Forje (2002) noted the following factors impede, inhibit and also threaten effective governance and sustainable development in Africa. They include:

- Abuse of executive power.
- Poor economic growth.
- Political instability or fragility of other political institutions, structures and judicial system.
- Serious security problems, food security, functional welfare, life and property.
- Non-accountability of the bureaucracy and political party interference.
- Non separation of powers between executive, judiciary and legislature
- Exclusion of key stakeholders in the development process.
- Foreign support for the state of bad governance.
- Absence of ethical and moral virtues.

From the above, it is crystal clear that, sustaining good governance in a society where the above stated takes place will be a herculean task. We often record less of political or societal violence in the activities of civil society organisations. But most of the political violence we have seen overtime in

Nigeria can be linked to political party activities. For example, the several killings we have witnessed in Nigeria have been linked to political activities. In the administration of Olusegun Obasanjo, there were a number of killings that were politically motivated, besides this; there was a kind of proliferation of arms and ammunition which led to the introduction of the use of thugs and assassins to secure election victory (Arowolo and Aluko, 2012). The likes of Engr. Funso Williams, in Lagos, Ayo Daramola, Harry Marshall were all killed in relations to their party affiliations (The Nations, 2006).

The National Assembly that is supposed to make quality laws for the nation is not immune from the political dislocation of the country. A good number of them only pay lip service to the plight of their constituents without taking practical steps to nip such problems in the bud or ameliorate them. The bulk of the campaign for the emancipation of the Chibok girls came from civil society groups. We have had several cases of allegations against political office holders who have siphoned monies meant for developmental purposes, of which most times, it is these CSOs that helped in blowing the whistle on such issues.

Conclusion and Recommendations

The study having looked at the activities of both civil societies and political parties in Nigeria, rather than solve the problem political parties claim to come and solve while campaigning, they rather come to compound those problems. Instead of politicians to create a good atmosphere for civil society groups to flourish, they rather hound their leaders into detentions and come up with polices that will hamper their activities. Several allegations have been levelled against political elites who have diverted monies meant for developmental purposes to private use. Some diverted monies meant for the national identity card project, some appropriated money meant for fixing electricity, some political parties renege on their campaign promise of restructuring the country. It was also discovered in the course of the study that, when states or countries continue to borrow in such a way that, the debts are pushed to future dates, it tends to hamper the future development which runs against the grains and tenets of sustainable governance. Wasteful exploitation of natural resources has also been seen to detract from future

Readings in UN-Sustainable Development Goals and the Lagos Region

development. On the basis of the aforesaid, the study therefore recommends as follows:

First and foremost, the national assembly should make legislations that will strengthen civil society groups.

Secondly, the judiciary should be impartial in the delivery of sound judgment in cases that involve civil society groups and the government.

Citizens should always give support to civil societies with good intentions whenever they are embarking on good causes.

More so, the environment should be conserved in such a way that, the future generation can maximally benefit.

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CHAPTER

24

ASSESSMENT OF THE NATIONAL ASSEMBLY LEGISLATIVE FRAMEWORK FOR THE ACHIEVEMENT OF SUSTAINABLE DEVELOPMENT GOALS IN NIGERIA

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Abstract

The sustainable development goals (SDGs) are a new, universal set of goals, targets and indicators that UN member-states are expected to use to frame their agenda and political policies over the next 15 years. The SDGs follow and expand on the millennium development goals (MDGs), which were agreed upon by governments in 2001 and expired in 2015. However, it has been severally argued that one of the flaws in the execution of MDGs in Nigeria rests largely on the failure of government to provide legislative framework for many of their policies towards realising the goals; rather they were executed through Presidential Fiat. This, of course, posed a risk to their continuity and sustainability particularly when a change of government occurred. Thus, with a view to averting this likely perceived risk to SDGs, this paper examines the Nigeria's road to achieving the current global goals with respect to legal framework being put in place by the government. The paper specifically identifies and assesses some of the bills that have been sponsored in the 8th National Assembly, and whose policy-outcomes can appropriately key in the SDGs framework.

Keywords: Nigeria, Legislature, Development, SDGs, MDGs, Bills, Policy

Introduction

It is a known fact that poverty is still very much alive, most especially in the third world and developing countries of the globe. Ajiye (2014) gives credence to this by arguing that sometimes, people go to bed with empty stomach without hope of what to eat the following day and perhaps, malnutrition becomes customary; some do not have shelter over their heads; health care delivery system and electricity are alien to some communities; pipe borne water, qualitative or limited access or lack of education and endemic diseases have taken over some territories; lots of mothers and children die during child birth on a daily basis, some environments are not conducive for human habitation due to environmental degradation; while some still live in the jet age where there is basically no form of civilisation, social discrimination and exclusion as well as the lack of participation in decision making. The aforementioned indicators are the characteristics of the poverty-ridden places of the world- the underdeveloped. Thus, these mind-boggling conditions continue to give the world leaders sleepless night and prodded them to make some drastic efforts to address these challenges. These efforts eventually culminated to the conception of the United Nations Millennium Declaration in New York in September 2000, which led to the adoption of the eight time-bound Millennium Development Goals (MDGs) with some certain targets and indicators to be achieved by 2015 (The Global Goals, 2015). With the expiration of the MDGs in 2015, the level of poverty indicators is still alarming, and this resulted into the adoption of a more ambitious Global Goals- Sustainable Development Goals (SDGs), to tackle poverty and bring about development.

The Sustainable Development Goals (SDGs) are a new, universal set of goals, targets and indicators that UN member-states will be expected to use to frame their agenda and political policies over the next 15 years. It was a product of the Outcome Document adopted during the September, 2015 UN-summit which outlines a set of 17 Sustainable Development Goals (SDGs) and 169 targets aimed at eradicating poverty in all its forms and shifting the world onto a sustainable and resilient development pathway while ensuring that 'no one is left behind'. The SDGs seek to build on and complete the unfinished business of the MDGs; realise the human rights of all; achieve gender equality in all sectors and spheres of life; and importantly, strike a balance between

economic, social and environmental dimensions of development (United Nation, 2015).

In order to achieve the SDGs by Nigeria government, however, it has been argued that it will depend on completing the unfinished business of the MDGs, broadening the focus of the MDGs to new activities and sectors, and deepening these successes to ensure that the achievement of the SDGs is truly universal and no-one is left behind. But, strikingly, it has been severally argued that the MDGs have been pursued in Nigeria without any comprehensive legal or policy framework. For example, the final years of the MDGs witnessed a whirlwind of activity designed to promote rapid progress on the MDGs. Some of these activities were not formally institutionalised in a policy or legal framework but carried out through Presidential Fiat and represented ad hoc efforts to meet the MDGs timeline (Global Goals, 2015). This, of course, poses a risk to maintaining momentum on the SDGs, particularly when changes in administration happen after general elections, with recent momentum and experience likely to be easily lost. Thus, with a view to averting this likely perceived risk to SDGs, this paper examines the Nigeria's road to achieving the current global goals with respect to legal framework being put in place by the government. The paper specifically identifies and assesses some of the bills that have been sponsored in the 8th National Assembly, and whose policy-outcomes can appropriately key in the SDGs framework.

Literature Review

The challenge of development and poverty eradication has attracted the attention of scholars, leaders and the international community over the years. Although different scholars have different perspectives on development, most students and practitioners of development accept that it must mean progress of some kind (Kambhmpati as quoted by Igbuzor, (2011). It is also conceived as a multi-dimensional process that changes the economy, polity and society of the countries in which it occurs. Sen (2008) sees development as a process of expanding the real freedoms that people enjoy. According to him, development requires the removal of major sources of unfreedom: poverty as well as tyranny, poor economic opportunities as well as systematic social deprivation, neglect of public facilities as well as intolerance or over activity

of repressive states. There may be different perspectives on development, there is general consensus that development, according to Igbuzor (2005), will lead to good change manifested in increased capacity of people to have control over material assets, intellectual resources and ideology; and obtain physical necessities of life (food, clothing and shelter), employment, equality, participation in government, political and economic independence, adequate education, gender equality, sustainable development and peace.

Thus, the indispensability of legislature as a vital institution of government in a democratic system to engender development cannot be over-emphasised. Apart from being the body of government that constitutes the largest number of people who directly represent the electorate, legislature is fundamentally saddled with the responsibility of making law for the development that fosters the good of the people. The expression and interpretation of the Section 17 of the 1999 Constitution of Nigeria is all about the development of the citizens. In giving credence to this line of argument, the former Deputy Speaker of the House of Representatives of the National Assembly of the Federal Republic of Nigeria, EmekaIhedioha in a speech in the University of Lagos averred that 'The legislature controls through legislations all economic, social and political activities of the nation' (2012). So, legislature in Nigeria is expected to make laws with the view to stabilising the economy, tackling poverty and generally transforming the state and changing its poor national economic condition for better (Osaghae, 1998). It is, therefore, within the framework of this law and views that this paper studies the current 8th National Assembly in Nigeria vis-à-vis the performance of its function of law-making to propel development, and how some of these laws are directed towards realising the targets of the Sustainable Development Goals.

Africa Progress Panel (2015) opined that the new global targets for improving people's lives around the world, the Sustainable Development Goals, do much more than just extend for another 15 years the remit of the Millennium Development Goals. The SDG agenda, an unprecedented push to tackle the root causes of poverty, looks at the big picture. The SDGs is a set of 17 Development Goals and 169 targets aimed at eradicating poverty in all its forms and shifting the world onto a sustainable and resilient development pathway while ensuring that 'no one is left behind'. The Goals are: No

Poverty; No Hunger; Good Health; Quality Education; Gender Equality; Clean Water and Sanitation; Renewable Energy; Good Jobs and Economic Growth; Innovation and Infrastructure; Reduced Inequalities; Sustainable Cities and Communities; Responsible Consumption; Climate Action; Life Below Water; Life on Land; Peace and Justice; and Partnership for the Goals. Strikingly, the jump from the MDGs to the SDGs is not simply a question of extending the timeline and the ambition of the goals. New goals have been added, entirely new sectors have been introduced and the number of indicators has more than doubled (SDGs-Nigeria, 2015). The overall aim of the SDGs is to provide guidance and contribute effectively to transformative changes “in support of a rights-based, equitable and inclusive approach to sustainability at global, regional, national and local levels” (UNECA, 2013).

Millennium Development Goals were the first biggest purposeful, concerted efforts of the world leaders to collectively fight their common enemy-poverty. Hulme (2009) gives credence to this submission when opined that the Millennium Declaration at the Millennium Summit in September 2000 was the world’s biggest promise – a global agreement to reduce poverty and human deprivation at historically unprecedented rates through collaborative action. They differ from all global promises for poverty reduction in their comprehensive nature and the systemic efforts taken to finance, implement and monitor them – they envelope you in a cloud of soft words and good intentions and moral comfort (Saith, 2006). MDGs Nigeria Report (2010), as quoted by(Ajiye, 2014), the Millennium Development Goals (MDGs) are the world’s time-bound and quantified targets for addressing extreme poverty in its many dimensions – income poverty, hunger, diseases, inadequate housing – while promoting gender equality, education and environmental sustainability.

Different member-states of the UN are to devise local and domestic means of achieving SDGs. But, generally, the strategy to achieve SDGs was developed alongside. Specifically, Goal 17 (Partnerships for the Goals) of the SDGs is a target achievement strategy. According to Orellope-Adefulire, the Senior Special Assistant to President Buhari of Nigeria on SDGs, lesson from the Millennium Development Goals (MDGs) is that the successful implementation of the SDGs will depend on partnership, inclusiveness and

accountability. We recognise the need for inter-sectorial, inter-governmental, multi-level and multi-stakeholders' partnerships to enhance success (Udo, 2016). In his own study he conducted on the roles of Corporate Social Responsibility (CSR) in achieving the MDGs in Nigeria, Olatunji (2008) studied the CSR programmes of selected manufacturing companies in two areas in the south-west. His findings showed that more CSR programmes for manufacturing companies are needed to achieve the goals. He called for increased community involvement and empowerment in developmental projects, rather than the present approach that emphasises “money giving” and haphazard execution of CSR projects. So, the point here is that the responsibility of achieving the current global goals is not for government alone. There should be cross national cooperation, assistance by corporate organisations, and even individuals who are well to do in the society should be mobilised to cooperate and partner with government to ensure the achievement of the SDGs.

While many of the government institutions created in Nigeria as a framework to achieve MDGs have proven to be much more effective than other institutions operating in the governance environment, a number have also displayed important weaknesses which should be rectified. Aribigbola (2009) studied the institutional constraints to achieving the MDGs in Africa, using the example of Akure Millennium City and Ikaram/Ibaram Millennium Villages both in Ondo State. He observed that although both the Millennium City and Millennium Village projects have taken off as programmed, the effect of the programme has not been widespread especially in Akure, though the effect of the programme seems visible in the millennium village. He discovered that the problems which programmes are designed to solve are still widespread and the lack of adequate conceptualisation of the project militate against full implementation of the project. He identified lack of conceptualisation and understanding both by the implementers and the will of the beneficiaries (people at the grass root), over politisation by the government, lack of interest on the part of grass root would-be beneficiary/community and inadequate funding and capacity under utilisation as the major problems militating against the success of the project. The study conducted by Alabi (2014) on the representative function of legislators in southwestern Nigeria, gives credence to Aribigbola's. His findings indicated

that legislators, in actual sense engaged in constituency projects in their various constituencies, but the general view is that the choice of the project to be executed was not made by the constituencies who are the beneficiaries of the projects. In other words, the electorates were not duly consulted on projects they really need. He stated that the responses of nearly all the legislators that were interviewed confirmed this by saying that, often than not, legislators consulted their party leaders on the choice of project to be executed for the use of the electorate. Thus, perhaps, this usually informed the 'I don't care' attitude of the people towards the management and maintenance of constituency projects in their districts. Most of the time, projects are misplacement of priority of the people. A district that was in need of a borehole for water supply, a building of classrooms would be constructed. Therefore, collective participation of the grassroot people, who are the direct beneficiaries, in project design and implementation are crucial to achievement of the MDGs (and SDGs) and overall development. (Aribigbola, 2009; Alabi, 2014).

Yonghyup (2005), as quoted by Ajiye (2014), opined that MDGs is a combination of enhanced foreign intervention, more external money and top-down approach having a potential of depriving recipients of the spirit of independence as their eyes are glued to free lunch offered by the donor agencies. Another area of concern as noted by Yonghyup, is the post MDGs implementation periods, in other words, what become of MDGs after 2015. He argued that since MDGs focus mainly on building up infrastructure to produce more public goods, chances are that poor funding may set in after 2015, the terminal year of MDGs, at this point, he asked what becomes of successful MDGs projects. However, Alhaji Alhassan Doguwa, Chairman House Committee on MDGs, responded to douse the tension by the fear of what becomes of MDGs after the expiration of its bound-time when he said that the development project of the goals would not end in the year 2015. He said Nigeria had succeeded tremendously in achieving MDGs projects nationwide, particularly in terms of job provisions, poverty reduction among others. "As a stakeholder, I am telling you that in the course of global consultations and with other stakeholders, the project will not end in 2015. This is because there would be another successor with similar goals to replace MDGs; the Sustainable Development Goals". Doguwa recently said

this at a meeting with stakeholders of MDGs organised by the National Teachers Institute, Kaduna.

Reading through the available literature on the subject-matter most especially those that bother on the operation of MDGs and SDGs in Nigeria, some shortcomings are discovered. Scholars have not really discussed the significance of building legislative framework for some of the programmes or policies of government that key into SDGs framework. Most of the MDGs programmes by the previous administrations were carried out through Presidential Fiat. And this, of course, as earlier argued, poses a danger of continuity. Thus, it is as a result of this shortcoming that this paper is crucial to fill the lacuna.

Nigeria's Performance on MDGs

Following the Millennium Declaration of 2000, Nigeria began the systematic implementation of several policies and programmes to help it attain the different targets set for the MDGs by 2015. Over the years, stakeholders have modified a few targets and refocused them to reflect local peculiarities as well as target more specific and measurable problems (UNDP-Nig, 2008). Nigeria began to fine its rhythm in the implementation of the MDGs from 2005 after the cancellation of its foreign debt. Before this period, Nigeria was under a crushing debt burden of about \$35.9 billion with over 85 percent owed to the Paris Club. There was a huge campaign for cancellation of the debt. The House of Representatives passed a resolution that the debt should not be paid. The civil society under the auspices of Global Call to Action Against Poverty (GCAP) campaigned vigorously for cancellation of the debt. It is instructive to note that even though Nigeria borrowed \$13.5 billion from Paris Club between 1965 and 2003 and repaid \$42 billion, as at the end of 2003, Nigeria still owed Paris Club more than \$25 billion. President Olusegun Obasanjo and the Finance Minister, Dr. Ngozi Okonjo-Iweala negotiated with the Paris Club and just before the G8 meeting in 2005, the Paris Club granted a debt relief to Nigeria cancelling \$18 billion from the debt but requiring Nigeria to pay \$12 billion in six months and comply with Naples terms and Policy Support Instrument (PSI) (Igbuzor, 2011). The implementation could be said to actually begin when the Federal Government pledged to apply the savings from the Paris Club Debt Relief Deal in 2005 to pro-poor programmes and

projects. Several policies, programmes and projects have thus been implemented as a result of savings from the external debt relief, with direct impact on the MDGs (MDGs-Nig, 2015). The programmes were developed within the framework of MDGs to serve as driving forces to achieve these laudable projects; programme like NEEDs by President Obasanjo's administration, 7-Points Agenda and Vision 20: 2020 by Umar Yar'Adua and SURE-P by President Goodluck Jonathan.

On the actual implementation of MDGs, the Nigerian experience presents a mixed bag results. In general terms, the Nigeria (2015) MDGs End-Point Report indicates that Nigeria has made appreciable progress in the attainment of MDGs in the last 14 years, particularly, in the area of universal primary education enrolment; achieving gender parity in education; reducing the spread of HIV and AIDS; reducing maternal deaths, as well as, halving the percentage of people living in absolute hunger for which it received a recognition from the Food and Agricultural Organisation (FAO). Specifically, on **Goal 1: Eradicating extreme poverty and hunger**; the report states that the strong progress under this goal which can be seen is the persistent reduction in poverty prevalence in recent years. Although poverty prevalence fluctuated, it declined from 65.6% in 1996 to 45.5% in 2010; short of target (21.4%) by 24.1%. However, the World Bank's most recent estimates of poverty incidences in Nigeria indicate it at the lower of 33.1% in 2012/2013; a figure much closer to the target. Based on the Nigeria National Bureau of Statistic's figure 2011 however, the proportion of people living in poverty has declined to 54.4% in 2011 which amounts to about 68.7 million poor people (NBS Report, 2011). The level of poverty in Nigeria has taken a declining trend over the last one decade. The economic growth, particularly in agriculture, has reasonably reduced the proportion of underweight children, from 5.7 per cent in 1990 to 23.1 per cent in 2008 (UNDP Report, 2010). The proportion of people whose income is less than one dollar a day, the percentage of the population living in relative poverty was 60 per cent in 2000 and was supposed to fall to 21.35 in 2015 (Ibid). But another perspective argues that the growth in the economy has not generated adequate employment, majority of Nigerian youth are either unemployed or underemployed. However, nutrition has improved significantly maybe in the upper class while the rural

dwellers which contain the larger population experience malnutrition (Sam, 2013).

The progress report on **Goal 2**, Achieve Universal Primary Education, was not sweet enough. The net enrolment in basic education has had a fluctuating history of an upward trend to the mid-point assessment year with around 89%, (UNDP-Nig, 2008). But this positive trend was however halted in later year as a result of this disruptions brought about by the Boko-Haram insurgency. So, consequently, the net enrolment of 60% in 1995 declined to the end-point net enrolment of 54% in 2013. This is because the insurgency led to the destruction of many schools with the school children constituting a large size of the internally displaced population (OSSAP-MDGs-Nig, 2015).

On **Goal 3**, Promote Gender Equality and Women Empowerment, the pursuit of closing the gap of gender inequality is purposeful. The report has it that there has been a steady increase in the ratio of girls to boys in basic education in Nigeria with the end-point status of 94% in 2013 being a significant achievement compared to the 82% achieved in 1991. The statistics from both the World Bank and Multiple Indicator Cluster Survey (MICS) in 2012 corroborate the high gender parity index recorded by Nigeria. Contrarily, the success at the basic education level has not been replicated at the tertiary level where there is weak progress even though the policy environment has been supportive at every level of the educational pipeline. Similarly, Nigeria has not done well in the area of proportion of women in wage employment in the non-agricultural sector with an end-point status of 7.7% in 2010.

Goal 4, 5 and 6 basically has to do with our health care system. There is an obvious indication that Nigeria government is making concerted efforts in improving the health care system. The record of strong progress in the effort to eradicate polio and recently celebrated one year without polio from July 2014 to July 2015 attested to this point. Also, Nigeria dramatic rise against Ebola disease that nearly plagued the country in 2015 demonstrated its health capacity. Generally, the report on the goals showed pleasant improvement.

On **Goal 7**: Ensure Environmental Sustainability, it was reported that Nigeria has made appreciable progress in improving households' access to safe

drinking water with an end-point status in 2015 at 67.0% access. The country is also deemed to have done well on this indicator from the statistics of the Joint Monitoring Programme (JMP)/United Nations Children's Fund (UNICEF) and World Health Organisation (WHO) indicating the recorded end-point status of 69% in 2015. This compares well with the baseline figure of 40% in 1990. But Sam (2013) argues that indicators on other targets are not sweet as other environmental challenges, such as erosion, coastal flooding and climatic change are growing; a good example is the incidence of last year's devastating flood that gulped almost the entire country.

Whatever might be success recorded by Nigeria, it was not achieved in isolation, there was national and cross-national cooperation and partnership with other countries and bodies both national and international ones. And this, of course, represents the **Goal 8** of the MDGs. Thus, we believe that Nigeria should have done better to grab the amazing opportunity presented by MDGs to improve its system and upgrade the standard of living of its citizens, and also set the strong foundation in terms of economic growth and development and be counted among developed countries of the world. But whatever little achievement Nigeria might have recorded on MDGs, the fear remains a challenge because most of the policies formulated as the driving force for their achievement were not rooted within legislative framework. Some of them can be discountenanced with the change of government.

Nigeria's Road to the SDGs

According to Global Goals-Africa Progressive Panel, (2015), the SDGs will only succeed, however, if they can succeed in Africa whose rapidly growing population most needs the change that the agenda describes. This assertion signifies the suitability and compatibility of the SDGs to the realisation of development in Africa. Therefore, Africa and indeed Nigeria's leaders must take the bull by the horn and seize the global opportunity as presented again.

Thus, in order to ensure the achievement of the SDGs in Nigeria, nothing can be left to chance. Rather than hope for sustained improvement in coordination between the MDAs, states and local government over the next fifteen years, there is a strong case for inscribing in legislation any changes in institution and policy framework towards the achievement of SDGs (SDGs-Nigeria,

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2015). In fact, there is a strong case for a ‘Sustainable Development Goals Act’. This is an attempt to guide against the challenges of continuity posed by the defunct MDGs policy framework as many of them are formulated through presidential fiat with no legal framework. The very little legislation towards realisation of MDGs by the previous administrations still exists and is in force. For example, the Basic Health Care Provision Fund established by the National Health Act 2014 provides funding of at least one percent of the consolidated revenue fund to be dedicated to a package of minimum healthcare for all Nigerians, the Universal Basic Education Act 2004, the Child Rights Act 2003, the National Health Act 2014, the National Healthcare Policy, the National Policy on Education and the Fiscal Responsibility Law. This is an important step, especially the National Health Act 2014, towards coordinating and financing progress towards the SDGs and can provide an appropriate platform for additional efforts. Nothing in this Act – and many other existing Acts – is likely to contradict any arrangements for the SDGs.

In line with the idea of creating legal framework for the achievement of the SDGs, this section looks at some of the Bills that have been sponsored in the both chambers of the 8th National Assembly by x-raying and analysing their Bill Progression Chart, each.

Bill Progression Chart 8th Senate, National Assembly, Abuja

No/Title	Sponsor(s)	1st Reading	2 nd Reading	Committal	Date Reported out of Committee	Conference Reports
(1). The Nigerian Railway Corporation Act 1955 Repeal and Re-enactment: Railway Bill, 2016	Sen. Andy Uba	23 June, 2015	6 th Oct. 2015	Land Transport	1 st June, 2016	12 th July, 2016 Passed
(2). North East Development Commission (Establishment, etc.) Bill 2015 (SB. 165)	Sen. Ali Ndume	24 th Nov. 2015	16 th Dec. 2015	Special Duties and Establishment	25 th May 2016	
(3). National Poverty Eradication Commission (Est. etc.) Bill 2015 (SB. 24)	Sen. Ibrahim Gobir	8 th Oct. 2015	20 th April, 2016	National Planning		
(4). Food Security Bill (SB. 71)	Sen. Theodore Orji	8 th Oct. 2015	3 rd May, 2016	Agriculture		
(5). Counterfeit and Fake Drugs and Unwholesome Processed Foods (Miscellaneous provision) Amendment Bill 2015 (SB 55)	Sen. Biodun Olujimi	3 rd Nov. 2015	10 th Dec. 2015	Health, Drugs and Narcotics		
(6). National Farm Settlement and Youth Empowerment Agency (Establishment, etc.) Bill 2015 (SB. 165)	Sen. Mathew Uroghide	17 th Mar. 2016				

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(7). Unemployed Youths, Elderly and Indigent Sustainability Bill 2015 (SB. 192)	Sen. Ali Ndume	3rg Dec. 2015				
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Bill Progression Chart 8th House of Representatives, National Assembly, Abuja

No/Title	Sponsor(s)	1st Reading	Debate on General Principles	Committee(s) Referred	Date Reported out of Committee	3rd Reading and Passage	Conference Reports Adopted	Remarks
(1). (HB. 15) National Primary Healthcare Development Agency Act (Amendment) Bill, 2015	Hon. UzomaNkem -Abonta	12 th Aug. 2015	15 th Oct. 2015	Healthcare Service				Awaiting Committee Report
(2). HB. 12 Satellite Towns Development Agency Bill, 2015	Hon. UzomaNkem -Abonta	29 th Sept. 2015	7 th Oct. 2015	Federal Capital Territory Area Councils and Ancillary Matters				Awaiting Committee Report
(3). HB. 86 Gender and Equal Opportunities Bill, 2015	Hon. UzomaNkem -Abonta	21 st Oct. 2015	5 th Nov. 2015	Committee of the Whole				Awaiting Committee Report
(4). HB.71 Federal Capital Territory HIV/AIDS Control Agency Bill, 2015	Hon. UzomaNkem -Abonta	11 th Nov 2015						Awaiting Committee Report
(5). HB. 126 National Welfare Trust Fund and Management Commission (NWTFCM) Bill, 2015	Hon. Rita Orji	24 th Nov. 2015						Bill Consolidated with HB.124 25/2/2016
(6). HB. 155 Compulsory, Free Universal Basic Education (Amendment) Bill, 2015	Hon. BeniLar	24 th Nov. 2015	17 th May, 2016	Basic Education and Service				Consolidated with HB. 419 & 420 Awaiting Report
(7). HB. 218 National Crop Varieties and Livestock Breeds (Registration	Hon. Uzama N. Abonta	10 th Dec. 2015	8 th Mar. 2016	Agricultural Production and Services	19 th May, 2016	1 st June, 2016		Passed by House and Transmitted to the Senate

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etc.)Act (Amendment) Bill, 2015									for concurrence
(8). HB. 346 Industrial Waste Water, Pollution, etc. (control) Bill, 2016	Hon. Ayuba Mohammed	20 th Jan. 2016	8 th Mar. 2016	Environment and Habitat					Awaiting Committee Report
(9). HB. 357 Inland Fisheries Act (Amendment) Bill, 2016	Hon. AbdussadDausuki	20 th Jan. 2016	1 st Mar. 2016	Ports, Harbours and Waterways					Awaiting Committee Report
(10). HB. 440 Renewable Energy Bill, 2016	Hon. Uchechuwu G. Nnam-Obi	16 th Mar. 2016							Awaiting Committee Report

The analysis of the Bill Progression Charts between June, 2015 up till around June, 2016 when we were able to get access to the charts indicates that about 300 and 708 bills have been sponsored in the Senate and the House of Representatives respectively. But it is noted that many of these Bills are yet to be passed. Some have passed through first-reading stage, some second-reading while some have been referred to the appropriate committees for scrutiny. But our concern does not lie in the number of the bill that have been sponsored so far rather to identify those bills that are appropriately key to the achievement of the goals and targets of the SDGs.

It has to be stated that those bills identified are randomly chosen. Some Bills were simultaneously sponsored in both chambers. And some Bills will be analysed from those identified. In the Senate, seven (7) Bills are identified. For instance, The Nigerian Railway Corporation Act 1955 Repealed and Re-enacted: *Railway Bill, 2016*. This Bill is in consonance with the Goal 9 of the SDGs (Innovation and Infrastructure). According to the Special Assistant to the Senate President, Mr. Yusuph Olayoonu, the Bill provides for the procurement of the private sector participation, the regulation of the railway sector promotes the efficient and sustainable development and operation of the railway sector and facilitates the development of competitive market for services in the railway sector. The significance of this Bill if it is eventually signed into law and henceforth properly executed by the executive arm of government, lies not only in reviving infrastructure but also its multiplier effect of creating job opportunities for the Nigerian teeming youth.

North East Development Commission Bill (NEDC) Bill is another Bill by the Senate and which is very key to SDGs. The purpose of the Bill is to tackle poverty, hunger, health problems and other menace that are currently ravaging the north-eastern part of Nigeria as a result of the consequence of the Boko Haram insurgency in the area. If properly executed after being signed into law, the Bill encompasses a number of the SDGs goals, specifically Goal 1, 2 and 3 (No Poverty, No Hunger and Good Health). To reiterate Nigeria's commitment to SDGs, the then Senate President, Dr. Bukola Saraki in a summit powered by the UN on the problem of the North-Eastern part of Nigeria. He said:

Nigeria equally shares such vision to completely eradicate poverty by 2030 and in making that a reality, on June 8, 2016, I inaugurated a Senate Committee on the establishment of a Poverty Eradication Scheme Commission to track progress on the 'poverty front' and serve as a data bank on all poverty-related issues in line with Nigeria's commitment to meeting the United Nation's Sustainable Development Goals to "End poverty in all its forms everywhere".

Renewable Energy is one of the Bills being sponsored in the 8th House of Representatives, and if it eventually scales through, it will create a legal framework to achieve the 7th Goal of the SDGs (Renewable Energy). It is no news that the government of Nigeria equally recognises that adequate electricity supply is imperative to the growth of the economy. And the government has been making frantic efforts in addressing the monstrous challenges facing the power sector in Nigeria. One of the efforts is to recognise and consider the possibility of diversifying the power generation and supply, by not focusing attention alone on Hydro and Gas. In line with diversification drive, UNDP-Nig (2012) reported that the Ministry of power is focusing attention on Renewable Energy Projects across the nation with the aim of placing 1,000MW in Renewable Energy by 2020. So, this Bill is long expected. It has the possibility and potential of expanding energy generation and supply.

Gender and Equal Opportunities Bill is another one of the Bills being sponsored in the 8th House of Representatives and it will create a legal

backing for any effort by the government to achieve Goal 5 (Gender Equality) and Goal 10 (Reduced Inequalities) of the SDGs, if finally passed into law. A good ambition of the SDGs over the MDGs is its intention to ensure that ‘no one is left behind’. Perhaps the MDGs was not designed for that. For instance, the 2011 report on the global journey of the MDGs indicated that there is a major progress towards the achievement of the Goals but that the most vulnerable are left behind (MDGs-report, 2011). It is noted that the larger percentage of the progress recorded was from the developed countries while the smaller percentage was from the underdeveloped with the larger percentage of the most vulnerable left behind even on the little progress recorded. In other words, the little progress recorded has been uneven and there are many people left behind especially the poorest people and those disadvantaged by their sex, age, disability or ethnicity (Ibid). So, in the case of Nigeria in pursuing the SDGs, the Bill is a road to ensure that the vulnerable are taken care of in the development drive.

Conclusion

For continuity and sustainability, it is considered necessary to give legal backing to any policy of government directed towards the achievement of the SDGs so as to avert the risk of being discarded especially when there is a change of government. All those identified Bills being sponsored in the two chambers of the National Assembly are germane and their policy-outcomes key to the SDGs framework. So, it is believed that they will go a long way to help the Nigerian government achieve some of the SDGs and targets, if eventually passed into laws and properly executed.

However, a challenge identified by this paper is the delay in the passage of Bills. For instance, it is discovered that it took the Senate over a year before ‘The Nigeria Railway Corporation Act 1955 Repeal and Re-enactment: Railway Bill, 2016’. (June 23, 2015 – July 12, 2016). The case is similar in the House of Representatives, ‘The National Primary Healthcare Development Agency Act (Amendment) Bill, 2015’ (August 12, 2015) is still awaiting Committee Report as at the time the Bill Progression Chart was accessed. Legislative process of Bill passage may be tedious and time consuming, a prolong delay may retard development and defeat the whole essence of the SDGs which is time-bound.

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CHAPTER

25

POLICE BRUTALITY AND POLICE LEGITIMACY IN NIGERIA: WHY #ENDSARS PROTESTS TURNED VIOLENT IN LAGOS

Waziri B. Adisa PhD

Introduction

Torture, ill-treatment and extortion of money from members of the public have become some of the major characteristics of the police in contemporary Africa especially in their attempts at fighting armed robbery and other organised crimes threatening the security of African societies. Whether in Nigeria or elsewhere in West Africa, the police have, in the last three decades, come under serious condemnation for violating the human rights of citizens and suspects recognised in several national and international laws. The practice, which is also found in the developed world¹, is pervasive in the West African sub-region where the police and other security forces are battling to end decades of terrorism, cyber-criminality and organised criminal violence (Adisa, 2019; Dunn, 2004; Knoechelmann, 2014; Mazittelli, 2007; Paquette, 2020; Thomson, 2012).

Although, reports have shown that, there are honest and diligent police officers in Nigeria, the police force in Nigeria have consistently been accused of human rights violations and widespread corruption which have systematically reduced public confidence in the police (Amnesty International, 2020; Hills, 2008; Muheeb, 2014). This development is contrary

¹ The case of George Floyd in the United States that sparked the #Black Movement in America is a testimony to global outrage on police brutality, excessive use of force and widespread corruption. This scenario indicates that the problem of police brutality is a global phenomenon.

to the constitutional mandate upon which the police was established by the Nigerian state. Given the sensitivity of the work of the police, the 1999 Constitution specifically states that every suspect remains innocent until proven otherwise by a competent court of law. (Hills, 2008). In addition to this, Section 33 (1) of the 1999 Constitution of the Federal Republic of Nigeria expressly states that:

Every person has the right to life, and no one shall be deprived intentionally of his life, save in execution of the sentence of a court in respect of a criminal offence of which he has been found guilty in Nigeria

The implications of this justice administration is that criminal justice agencies must respect the right of suspects to a decent treatment and where someone is found to have committed, it is the duty of the court of law to make such pronouncement (Akingbehin, 2018).

Apart from the 1999 Constitution of the Federal Republic of Nigeria and the Police Act which provide what is supposed to be the responsibility of the police in criminal prosecution, the United Nations Universal Declaration of Human Rights, 1948 and the United Nations Convention against Torture and other Cruel, inhuman or Degrading Treatment or Punishment, December 1984 also collectively prohibit every form of torture and degrading treatment. Additionally, the African Union Human and Peoples Rights also condemns the police from using excessive force on suspects, issuing threats or using degrading treatments for the purpose of extracting evidence from suspects (Amnesty International, 2020). In an attempt to ensure compliance with International laws, the Nigerian government enacted the Anti-Torture Law. The Nigeria's 2017 Anti-Torture clearly condemns torture either by law enforcement agents or any private citizens. By so doing the law has helped to discourage the police from every form of human rights abuses.

Despite the availability of national and international laws condemning and prohibiting police brutality in sub-Saharan Africa, reports indicate that there have been consistent disregard for the human rights of people who have come in contact with the police especially with regards to criminal arrest and

prosecution in Nigeria, a subject that has drawn international concern with the #EndSARS protests in Nigeria, which reached its peak in October, 2020 (Paquette, 2020).

The #EndSARS protest is the first massive protest against police extortion, abuse and ill-treatment since independence. The protests, which started as an online campaign against police excessive use of force against suspects, and young persons culminated in widespread violence in October 20, 2020 leading to deaths, destruction of property, and international condemnation of Nigerian government's handling of Police-Citizens relationship (Paquette, 2020).

The United Nations issued a statement condemning the way Nigerian government handled protesters against police abuse. Within Nigeria, the #EndSARS protests also raised new questions about Nigeria's federalism, drawing attention to the departure of Nigeria's elites from true federalism which, in the 1960s, placed the security of each region in the hands of its regional government.

The protests also drew the attention of the government and the international community to the neglect of Nigerian youths evidenced in decades of unemployment and excruciating poverty imposed on the nation by the nation's elites whose main source of income is the state. By capturing the state, elites ensure that the collective wealth of the people are controlled by few while the majority live in abject poverty. The consequence of this, is the production and reproduction of a society where the people are completely disconnected from the state. Such was the atmosphere that provided the grounds for the #End SARS protests in Nigeria.

This paper is designed to examine the interface between police brutality and the #EndSARS protests in Nigeria. It is also meant interrogate how Lagos, in the midst, of the struggle, became the epicenter of the #EndSARS protests, which placed Nigeria on the international map. Though, the #EndSARS protests took place in other parts of the country, the paper is particularly interested in how a once peaceful protest degenerated into violence and led to the destruction of lives and property in the nation's commercial capital.

Literature Review

Police Brutality, Police Legitimacy and Public Trust in the Police

Public trust in the police is one of the major areas of public discourses on policing in developing countries (Bottoms & Tankabe, 2012). It has become popular beginning with the work of Tyler (1990), "Why People Obey the Law", because the world could no longer cope with the "Warfare approach" of policing which is characteristic of post-conflict and modernising societies. The "Warfare approach" is the approach which believes that, the police have a legitimate authority to rule and issue orders. In order to maintain law and order, the approach believes that, the police must be granted the right to apply some force (Bottoms & Tankabe, 2012). Rooted in Max Weber's concept of legal-rational authority and legitimate authority, police formations around the world, have always operated on this sociological maxim, though, the degree of its application varies from one nation to another.

The thinking is that without the granting of the police the legitimate right to rule, police authorities will fail to prevent crime and maintain law and order. The rationale behind this approach is that, people do not ordinarily defer to law without the use of force. Thus, if the police are deprived of coercive power, they will not only fail to prevent crime, the people will not defer to law (Bottoms & Tankabe, 2012).

For centuries, this system of police administration dominated most of the deployment of the police for the maintenance of law and order (Kraska, 1997; McMichael, 2017; Meeks, 2006). It was also the strategy adopted by the Europeans during the colonisation of African countries. Embedded in this philosophy of policing, is the belief that, "Your boss is the state and not the Public". This is also present in Yoruba cosmology, "Eníráníńsélàábèrù, àkíbèrùenitamajefún"-meaning it is only the sender that you fear and not the recipient. With this structure of police in place, police officers in colonial societies imbibed the culture of impunity. Brutality became the order of the day and gradually predatory policing was introduced into the culture of colonial society (Mareni, 1985).

The Colonial Society and Predatory Policing: How Nigeria Degenerated to Police Brutality and Lacked Public Trust

Colonialism came into Africa in the middle of the 19th century. It was formally launched into the continent with the Berlin Conference of 1884-1885 which led to the partitioning of Africa by the powerful European nations; Britain, France, Germany, Belgium, Portugal. With the partitioning of the continent's territories, the British had its strong hold of the Nigerian territory even when it had through the 1861 treaty ceded Lagos to the British Empire. The Lagos treaty provided the British the energy to launch its colonial agenda into other parts of Nigeria. By 1914, the British had succeeded in bringing the Northern and Southern protectorates together as a country. Though, Nigeria was an artificial creation, it was largely to the British an economic territory to be exploited for the benefits of the British Empire in London (Mbaku, 2010; Uzoigwe, 1984).

Swiftly, the colonial government embarked on the modernisation of the colonial police and colonial army, it merged the Hausa Constabulary with the Lagos Police, which was created in 1896 and other Police formations to form the Nigeria Police in 1930. The mandate of the colonial Police was very clear use of maximum force to protect colonial interests. Thus, the interest of the colonial state was placed above the interest of the citizens (Alemika, 1993; Ake, 2000).

Though, at independence, the managers of the state changed, the character of the Nigerian state remained the same. The police became the instrumentality of the political class to maintain their political hegemony. This became clear when the regional police in the South-Western Nigeria could not maintain order in the face of the operation wetie which threw the region into *Hobessian state of nature*. The chaos in the region and the politicisation of the police in subsequent years further battered the image of the Nigeria Police thereby reinforcing the "Warfare approach" to policing in Nigeria. It is therefore understandable why the police in postcolonial Nigeria will be brutal and inhumane (Mareni, 1985; Mazzitelli, 2007; UNODC, 2005).

The coming of the military, which initially promised widespread reforms and aggressive war against corruption in the Nigerian society, ultimately battered

the image of the police. It relegated the police to the background, reduced funding to the force and placed the military above police authorities in crime control. In Lagos State, the military administration of Col. Buba Marwa introduced Operation Sweep. Though, it was able to rid Lagos of armed robbery and gang violence, the operation's use of excessive force reinforced its commitment to colonial legacy; corruption, arbitrariness and political profligacy (Ihonvbere, 1996).

The police consequently descended into a venal society where corruption was the order of the day. Corruption, bribery, extortion and torture of the citizens then reached its crescendo as police contacts with the public became strained. Crimes and armed robbery also increased in the urban areas of Lagos as more people from other parts of Nigeria moved into the state in search of wage employment. Urbanisation, increased population growth and high cost of living imposed heavy burden on young people who went into the advance fee fraud (419) and later graduated into cybercrime.

Armed robbery, gangsterism and cultism also increased. The police in Lagos became overwhelmed by the rise in the profiles of criminal behaviours. There were then concerns if something drastic was not done to curb the rising incidents of crime, government would not be able to maintain law and order. It was in the process of reorganising the police that the Special Anti-Robbery Squad (SARS) unit of the Nigeria Police Force was established. Initially, SARS succeeded in busting the operations of criminal gangs. It arrested top armed robbers in Lagos and was able to restore order in the fast growing Nigeria's commercial capital. With time, SARS earned the praises of Nigeria but the unit later degenerated into a brutal force (International Crisis Group, 2020).

#EndSARS Protests and Violent Destruction of Property in Lagos

The #EndSARS protest started as a peaceful protest against the brutality allegedly perpetrated by an anti-crime unit of the Nigeria Police Force – SARS. SARS is a Special Anti-Robbery Squad established in 1992 by the military to fight armed robbery and other organised crimes in Lagos. The establishment of SARS was initially provoked by the rising armed robbery cases in Nigeria and later the increasing incidents of kidnapping, abduction

and cultism in different parts of the country. At the onset of the unit, SARS was very productive as it led to the busting of the activities of criminal gangs in Lagos.

It succeeded in exposing the rising profiles of youths in cybercrime, advance fee and organised crimes. Later, this anti-crime unit of the Nigeria police degenerated into a predatory police as there were reports of human rights violation, extortion and torture by officers of the force (Amnesty International, 2020).

In 2017, Nigerians marched in their hundreds demanding a disbandment of the police after embarking on an online hashtag Campaign against the brutality of the force. Worried by the massive protests, the federal government promised a reform of the police unit and promised to investigate the alleged human right violations levelled against SARS. Amnesty International (2020:5) noted that:

“The Federal Government of Nigeria has repeatedly promised to reform SARS. On 14 August 2018, the Nigerian Vice President ordered an immediate reform of SARS, citing the widespread public outcry against their conduct, as the basis of the order. He also directed the National Human Rights Commission (NHRC) to set up a judicial panel to investigate SARS alleged unlawful activities. Hours later, the police authority announced a list of reform measures aimed at increasing SARS’ public accountability for its actions. The measures include the change of name from special Anti-Robbery squad of SARS”. (Amnesty International, 2020; 3).

Despite a change of name of the anti-crime unit, reports indicated that it continued to commit human rights abuses. The behaviour of some officers of the police contrive the international treaties that Nigeria has subscribed to; such as the International Covenant in Civil and Political Rights, (ICCPR), the UN Convention against Torture and other cruel, Inhuman or Degrading Treatment or Punishment (UNCAT) and the African Commission on Human and Peoples Rights (Amnesty International, 2020).

The behaviour of the police officials also contravened Nigeria Anti-Torture Act 2017, which states that:

“The Government shall ensure that the rights of all persons, including suspects, detainees and prisoners are respected at all times and that no person placed under investigation or held in custody of any person in authority shall be subjected to physical harm, face violence, threat or intimidation or any act that impairs his free will “Nigeria’s Anti-Torture Act, 2017 p. 1).

The #EndSARS 2020 Protest and Violence in Lagos

The #EndSARS protest of October, 2020 was a continuation and response of Nigerian youths to decades of failed reforms designed to cleanse the police and improve its relations with the civil society. Unlike previous protests, Nigerians used the social media to express their discontents with police corruption and the extra judicial killings allegedly committed by some officers of the Special Anti-Robbery Squad (SARS). The events, though began in October was sparked by a video circulating online where two SARS officials allegedly shot a man in Ugheli, Delta State and drove away his vehicle thereby raising public outrage that shook the nation to its brim.

Beginning from October 5, 2020 youths numbering in their hundreds began massive protests against police brutality allegedly perpetrated by SARS. The protests began in Lagos, spread to Abuja, Port-Harcourt, Ibadan and other major cities in the country. Initially the protesters, who had no central leaders except followers and celebrities as their motivators had a five point agenda:

“Unconditional release of all detained protestors, prosecution and punishment of abusive police offers; compensation for families of victims of police brutality; psychological evaluation and retraining of all dismissed SARS personnel before their redeployment to other units; and higher police salaries (International Crisis Group, 2020)

The Governor of Lagos State, Babajide Sanwo-Olu acted promptly by delivering their 5-point agenda to President Muhammadu Buhari, who also

agreed that the Nigeria Police Force require extensive reforms in order to meet up the challenges of today's crime control.

However, the protesters were not persuaded by the Governor's move and the Federal Government disbandment of SARS. Instead, the protests continued in Lagos and paralysed active work and services in several parts of the state.

Gradually, the incidents degenerated into attacks on innocent citizens by hoodlums and deliberate attacks on the police and other security forces. The BBC reported that hoodlums set fire on Orile Iganmu Police Station. There were reports of attacks on the Palace of Oba of Lagos, the Lagos High Court and massive looting of shopping malls.

The attacks and looting were probably sparked by the video on Twitter which derived that protesters at Lekki Tollgate had allegedly been shot by soldiers.

Immediate and Long-Term Causes of the #EndSARS Protest

The immediate cause of the #EndSARS violent protest was attributed to the alleged massacre at Lekki Tollgate. It was reported in the social media that some soldiers had allegedly attacked and shot some protesters at the Lekki Tollgate-the epicenter of the #EndSARS protest in Nigeria. The video, which was widely circulated on social media; Twitter, instagram, facebook, blogs showed soldiers presence at the Tollgate after the declaration of Curfew by the Lagos State Governor, His Excellency, Babajide SanwoOlu. It was reported that protesters saw the curfew and the subsequent attacks on protesters as an assault on the youths who have suffered from decades of police brutality. This, and other aggressive measures taken by the state, to silence the protesting youths, escalated the violent attacks on the police, police station and public property in the state.

The protest was also said to have been provoked by deep-seated socio-economic crises in the country aggravated by the COVID-19 pandemic². The COVID-19 pandemic, which already met a devastated youth population faced with protracted ASUU strike and widespread unemployment caused a lot

² The COVID-19 pandemic was the global infection that ravaged the world in 2020 leading to over 3 months lockdown, paralysing social life and causing economic hardships on livelihoods in Nigeria and in many parts of the world.

disaffection against the government of Nigeria (Ojewole, 2020; World Economic Forum, 2020). No wonder, as the violent protests intensified, the angry youths target was COVID-19 palliatives allegedly stored in Warehouses but not distributed to the public during the COVID-19 lockdown (BBC, 2020b).

Nigeria's protesters were also said to have been angered by the structural imbalance in the distribution of power between the political elites who have held on to power and the growing population of youth who want a drastic change of the political system that has engendered poverty and inequality. One of the arguments of the activists is that a federalist structure which controls the majority of the nation's oil wealth and natural resources cannot guarantee just and equitable access to national resources. The #EndSARS protest was therefore an opportunity to seek for the overhauling of the corrupt, and failed political system (World Economic Forum, 2020).

Theoretical Framework

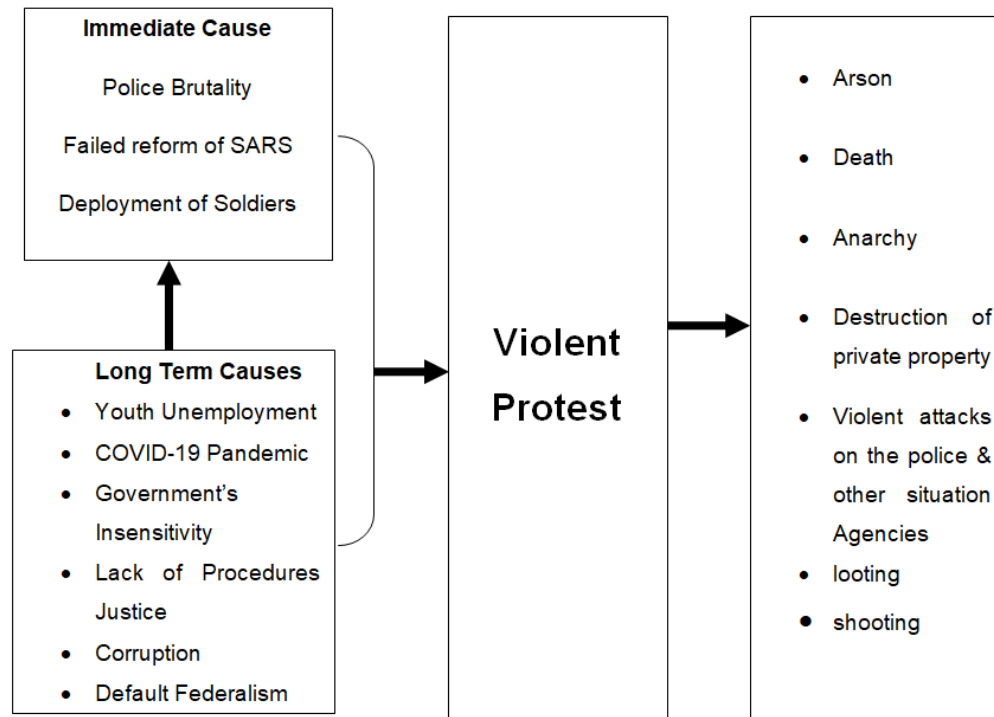
Procedural Justice Theory and Public Protests against the Police

This work is anchored on Tom R. Tyler's Procedural Justice Theory. The theory is suitable for the work because it espouses the significance of procedural justice in the maintenance of police-public relations. Tyler in his work, *Why Do People Obey the Law* discusses the link between police behaviour and public acceptance of the law. According to him, citizens' obey the law, not because, they are afraid of the police but because they feel that legal authorities have the legitimate right to rule.

In subsequent review of the theory, Bottoms and Tankabe (2012) perceived procedural justice as a necessary precondition to police legitimacy. They however noted that researchers should examine procedural justice from two sides of the legitimacy pool. The first side is the side of the power-holder (power-holder legitimacy), a legitimacy which the state usually bestows on the police through the instrumentality of the constitution. The second side way of measuring police legitimacy is audience legitimacy, determining if the people accept the police and defer to legal authorities without any form of coercion.

Sampson & Bartusch (1998) and Tankabe (2010) argued that in societies where the police have endemic culture of corruption, impunity and lack of procedural justice, citizens are more likely to develop legal cynicism. Whereas there have been debates on the nature of influence of cynicism of the law on citizens' attitude and reporting of crimes to the police, there is a consensus that legal cynicism erodes public confidence in the police (Johnson, Maguire & Kuhns, 2014). The #EndSARS protests can therefore be partly linked to legal cynicism of Nigerians about the police based on their decades of unpleasant relationships with the police on the roads, in public spaces and their communities.

Although, the procedural justice theory may be criticised for its inability to explain the role of the political economy of the Nigerian state and colonial legacy in the production and reproduction of a brutal police, the theory is able to provide a theoretical argument for why a failed policing system and governance system will result in reactionary actions. This argument is further buttressed in the conceptual framework that is presented below.



#ENDSAP Protest Violence in Lagos

Source: W. Adisa (2021)

The conceptual framework indicates that the #EndSARS protest in Lagos turned violent due to immediate and long-term causes. The immediate causes are listed as; police brutality, failed reform of SARS while the long-term causes are rooted in Nigeria's socio-economic landscape.

Method

The study adopted a mixed method of social research. It adopted qualitative method to sample the views and experiences of Nigerians about the #EndSARS Protests. Eye Witness Account and Victims Narratives of the protests were relied on to collect information for the study. A total of 30 Nigerians were interviewed across Lagos; Ikorodu, Surulere, Mushin, Lagos Island and Eti-Osa LGAs. Among these people were 3 legal practitioners, 5 security officers and 22 other Nigerians including youths and students. The

Key Informant and In-depth interviews were conducted both through telephone conversation and physical interviews, and participants consent was given major consideration in the conduct of the study. Data generated was analysed using context and content analyses.

The study also relied on observation method and archival records of the #EndSARS protests to support the findings of the In-depth interviews and Key Informant Interviews.

Results

The study found that the problem of police brutality is real in Nigeria. This can come either within or outside the criminal justice system depending on the nature of interaction that a citizen has had with the police. This finding is echoed in the statements of some of the participants in the study;

The Reality of Police Brutality

"Police brutality is real. It is more than real. It exists in the larger society, and even in the court of law, the police perpetrate brutality by fabricating evidence against suspects and coming up with trump up charges to extort citizens" (Male, Legal Practitioner, 48 years, Ikorodu, Lagos).

Another respondent remarked that police brutality is not only present when the police are dealing with citizens in their stations, he said that they often target young boys whom they think are Yahoo Boys, and should be rich enough to be exploited.

The police are fond of harassing people. At times, they arrest people for trump up charges. At times, when they are on patrol, they will arrest people whom they feel are Yahoo Boys. Generally, police brutality cuts across Eti-Osa. Police is usually seen harassing young boys and girls with tattoos on their bodies or those whom they perceive as stylists because of their hair colour (Male, 28 years, OrileMaroko, Ajah, Eti-Osa, Lagos).

A lady from Igbogbo Ikorodu had this to say about SARS and harassment of citizens;

"Police harassment is a recurring phenomenon in Ikorodu especially now that cultism and robbery now occur everywhere. For instance, Police brutality is common in Itamaga, Odogunyan, Ijede, Odo-nla and Igbogbo areas because Aiye and Eiye cults have been at each other's loggerheads" (Female, 22years, Ikorodu, Lagos).

The lady continued that:

"Before the #EndsSARS protests, police don't listen to people. They could arrest people on a bicycle or use their patrol vehicles to take young boys and girls to their stations for the purpose of extorting them" (Female, 22years, Ikorodu, Lagos).

The Okada riders and Bus drivers spoken to in Bariga, Ojuelegba and Mushin areas of Lagos lamented the persistent incidents of police extortion. One of them said that the "Police just believe is their entitlement to collect money from us". The story was not different from the Okada Riders in Ajah areas of Lagos where the incidents of police abuse of drivers was said to be counter-productive to business life.

I think what you suffer here is not just police extortion, you confront the Area Boys and LASTMA officials who also collect their daily entitlements. The situation is pathetic as we struggle to make a living (Male, 36 years, IDI Ajah Sangotedo Road, Lagos).

Informal interactions with two police officers indicated though, police collect bribes from the public, it is from such bribes that the police fund some of their stations that are grossly underfunded. One of them said that, "If you want to blame the police, blame the government too".

The Beginning of the #EndSARS Protests

This study found that the #EndSARS protest was very peaceful at the beginning, and that the protest was well organised with social media serving

as a critical mobilising tool. The hashtag #EndSARS was first launched on Twitter in 2017 and in 2020, it was relaunched. The study revealed that the #EndSARS found support from the Nigerian youths and the unanimous agreement among the protesters was that the impunity of SARS should be ended by government. The study found that, though, the protesters, had no centralized leadership but they were able to mobilise the youths and coordinate their activities through the social media. The presence of the celebrities in the struggle was also said to have bolstered the morale of the youths and later the fact that the protest ground served as "fun ground" and avenue to overcome the problem of hunger. This finding is echoed in the remark of one of the participants in the Ajah area of Lagos.

The #ENDSARS Protests started in my area from Chevron Roundabout, then it moved to Lekki Tollgate. Different people began to assemble at Lekki. Those from Addo, Sangotedo and Ikota joined the protesters. They would then move to Chevron and from Chevron, other people from Jakande, Igboefon, Agungi would join them in ultimately moving to the main protest venue; Lekki Toll gate. Initially, the protests were non-violent and well organised to the extent that they had security. The security officers were hired to protect the protesters and guide against hoagalism and violence (Male, 28 years, Ajah-Addo area, Lagos).

A participant who witnessed the protest in Ikorodu area narrated her experience this way;

In Ikorodu, the #EndSARS protest started from Odogunyan, then it moved to Ikorodu Garage. Afterwards, the protesters moved to Palace. It was from the Palace that they now began to concentrate in [sic]Ogolo Agric. where they stayed for weeks before the protests later turned violent (Female, 22years, Ikorodu, Lagos).

A lady who is also a student in one of Nigeria's Ivory Towers narrated her experiences of the #EndSARS protest in Yaba, Bariga and Akoka areas;

Around Saint Agnes in Sabo opposite Mana Barracks close to Domino Pizza, I saw a lot of students on the roads. We struggled to make our way in their midst and when we got to the front, we saw a lot of students with different inscriptions on their placards. They wrote; stop police brutality, #EndSARS. Some of the students were on the roads shouting while others were distributing placards and pamphlets to passengers and drivers. When we got to school, we saw another set of students in front of Unilag gate. They displayed the placards and some of them were dancing to the music. I never knew it was going to be a big protests (Female, 22 years, IDI, Bariga, Lagos).

When the Protests Turned into Violence

Many people have wondered why the #EndSARS protest degenerated into violent clashes. This study found that, the immediate cause of the violence was the alleged deployment of soldiers to Lekki Tollgate and the alleged massacre of #EndSARS protesters by soldiers at the venue. It was the outrage from this widely circulated news that led to the destruction of public property across Lagos; Mushin, Lagos Island, Eti-Osa, Ikorodu-road, Berger, Oyingbo, etc. A participant painted this picture of the outrage.

The violence of the #EndSARS Protest started from the Mainland. People started destroying public property and the Governor imposed curfew because he could not watch people turn the state into a battle field. Those who were at Lekki heard about the curfew but some of them felt they could not meet up with the deadline given by Governor Sanwo Olu. They consequently stayed back and remained at the Lekki Tollgate. Then, the Governor felt slighted that people disobeyed his orders, and Soldiers were deployed to the Tollgate. People also felt aggrieved that Soldiers were deployed to the Tollgate. With information that Soldiers had killed some people, violence broke out and people began to destroy property (Male 28 years, Ajah, Eti-Osa, Lagos).

He continued that:

The major areas where violence was more pronounced in Eti-Osa were Ajiwe where a Police Station was completely destroyed. Other places were Addo, Badore and Oke Ira where boys attacked public property and injured passersby. They looted the Shoprite at Sangotedo and Jakande. They also destroyed the Elemoro Police Station and the Palace of Elemoro. Police took to their heels (Male, 28 years, Ajah, Eti-Osa, Lagos).

The 28 years old participant from Ajah community also stated that;

People died in Igbojije. The boys killed the police and the police also killed the boys. Violence broke out even in Ajah as cult boys confronted the Police (Male, 28 years, Ajah, Eti-Osa, Lagos).

In Ikorodu area of Lagos, a participant reported that the violence caused confusion everywhere. According to a participant from the area;

When the protests turned violent, cult boys and other people started blocking the road and demanding for money. Though, there were no destruction of public property, cult boys used the opportunity to extort people. We had no choice than to stay at home for days before normalcy could be restored (Female, 22years, Ikorodu, Lagos).

A lady in Bariga area of Lagos also shared her experience about how the once peaceful protest turned violent;

The protesters spent a week in front of Unilag gate. For the following weeks, when the massacre happened, a lot of people left their house and went to the Toll Gate, not knowing that the protest was going to end that way it ended. The second day of the massacre October 21st, 2020, I couldn't sleep in the night because of gun shot. The next morning, some boys in my street came out in enmasse. They started marching. They said they are going to Ilaje Police Station because they heard that some people have burnt TVC, Gbagada Police station and

PHC in Ilaje. Most of them were scarred and at the same time, some of them were not scarred. They said that the DPO knelt down begging that they should not burn the police station. They the boys listened to the DPO because he was nice to people in the people. After a while when the boys had gun shots of some police officers, they started shooting as well. A friend of mine who followed to the scene was shot. The bullet entered his leg from the front and then came out from the back. He managed to survive due to some people's intervention who used charms to remove the bullet but a boy who had his stomach pierced by bullet died in the process (Female, 22 years, IDI, Bariga, Lagos).

Causes of the #EndSARS Violence

The study found that the main cause of the #EndSARS was police brutality epitomised in SARS alleged brutalisation of a man in Ughelli, Delta which caused national outrage and started the new wave of protest against the force;

People are tired of police harassment. They wanted a stop to police corruption and extortion. The police are fond of collecting money from motorists. They could use their patrol vehicle to stop a moving private car and start interrogating the owner with a view of coming up with trump up charges. I have personally helped to bail some people from SARS officials at Ikota (Male, 28 years, Ajah, Eti-Osa, Lagos).

Cost of the #EndSARS Violence to the State and the Citizenry

The study found that the costs of the #EndSARS protests to public life in Lagos are enormous. This is evidenced in the eye witness reports of burnt public buildings and the destruction of some of the Bus Rapid Transport (BRT) buses at Oyingbo and Berger. One of the drivers plying Ibadan-Lagos Expressway noted that the destruction of the BRT was not only senseless, it was an act of barbarity. A legal practitioner who has been using the Lagos court for years also expressed his discomfort with the massive destruction the #EndSARS protest left in Lagos.

The damage done to our society by the #EndSARS violent protests are unquantifiable. In Lagos alone, the losses are monumental when related to the public property burnt and deaths incurred during the

#EndSARS protest. For instance, the Lagos State Government said it would require about 3.9 billion to return the BRT buses to the roads. I think the rebuilding of Lagos will cost the government #2 trillion. The High Court of Lagos in the Lagos Division is as good as completely razed. Most of the courts razed were colonial courts hosting archival judgements and records that date back to 1890s, even to 1870s (Male, 48 years, Legal Practitioner, Ikorodu, Lagos).

The legal practitioner continued:

In those courts, there were archival records that were burnt and destroyed by the #EndSARS protesters. In order to get the colonial documents back, government will need the support of individuals and visionary public (Male, 48 years, Legal Practitioner, Ikorodu, Lagos).

Aftermath of the #EndSARS Protests

The study found that the #EndSARS protest has resulted in some structural reform of the police and security agencies in the country. This is evidenced in the comments of some of the participants who commended government for charging the police to live up to expectations.

In December 2020, people celebrated the new year without any form of police brutality. Unlike before when the police will be trailing people, boys were able to celebrate the new year in peace. However, there is still the challenge of insecurity. Cultism and armed robbery have increased in my area but we are using OPC and Community Security to confront them (Male, 28 years, Ajah, Eti-Osa, Lagos).

Need for Improved Security in Post-#EndSARS Era

The study found that most citizens still wanted the Lagos State Government to rise up to the expectations of securing the public in the post-#EndSARS era. This is because in some areas, cult groups have taken advantage of the vacuum left by the absence of the police to engage in cult war and cause the death of innocent citizens.

The absence of the police is affecting our community but people are devising other means to secure themselves. We now use the OPC to combat cultism and other violent crimes in my community.

Special Anti-Robbery Squad (SARS) and the Fight against Organised Crime in Nigeria

The study found from legal practitioners and security experts why it has become difficult to curb police corruption and impunity in the force. A legal practitioner provided this response to this lingering question;

In all our laws, the Constitution and the Police Act, we only establish special crime investigation units, the mandates governing the operation of these units are usually not well set out in the laws. Those mandates are usually left to the discretion of officers who are in charge of the administration of criminal justice. Too much discretion coupled with lack of clarity of purpose, are some of the causes of police brutality and endemic corruption in the force" (Male, 48 years, Legal Practitioner, Ikorodu, Lagos).

Solutions to the Problem of Police Brutality in Nigeria

When it comes to solutions to the problem of police brutality, police corruption and extortion, the majority of the participants are of the opinion that government must rise to the occasion by improving the welfare of the police and also give them stern warning on the abuse of the oaths of their office. The majority of the respondents believed that the reform going on in the Nigeria Police Force must be holistic. It must be capable of instilling discipline in the officers of the police.

The government must complement increment in the salary of the police with high level of discipline. Government must warn them that it will no longer tolerate any officer who is found wanting for violating the oath of his office or collecting bribes from members of the public (Male, 28 years, Ajah, Eti-Osa, Lagos).

Discussion

The #EndSARS protest has remained in the history of youth protest against police in Nigeria. It reminds both the Nigerian society and the international community that the power of the youths in national reforms cannot be ignored especially in transition societies where people have been wracked by poverty and unemployment (World Economic Forum, 2020).

For decades, Nigerians watched the horrendous acts of police extortion as if he did not matter. Complaints on police corruption covered in the media and tabled in public discourse did not also deter the police officers that were involved in acts of corruption.

The #EndSARS protest ignited the decades of anger of Nigerian youths and the Nigerian public against police corruption and impunity (Amnesty International, 2020). It raised new questions about the ability of the police to police the nation and earn the confidence of the people (BBC, 2020; Ojewole, 2020). This study was embarked upon to investigate the immediate causes of the #EndSARS protest and unearth the reason why it turned violent in Lagos.

#EndSARS Protest as a Struggle against Police Brutality and Police Legitimacy

The study found that the #EndSARS protest was a struggle against police brutality in Nigeria and decades of human rights abuse, torture and ill-treatment of many Nigerian youths by the disbanded Special Anti-Robbery Squad. The study found that across different segments of the Nigerian society, there is a general disenchantment with the approach of SARS in fighting organised crimes in Nigeria. To many of them, it epitomised the colonial legacy of arbitrariness, predatory policing and oppression under successive administrations where only matters affected the elites were of interests to the state. The finding aligns with earlier findings that the police in postcolonial

Nigeria is a reflection of the defunct Nigerian state (Alemika, 1993; Ake, 2000).

The study showed that the people were particularly angered by the fact some SARS officials targeted innocent Nigerian youths and in the process subjected them to abuse, harassment and inhumane treatment. This finding aligns with the study of Amnesty International study which reported 82 cases of abuse by SARS (Amnesty International, 2016).

The study also revealed that Nigerians were generally not averse to the fight against organised crimes and armed robbery threatening the corporate existence of nation, their demand is that, the police must be fair and procedural in their application of the law and their treatment of criminal suspects. Situations where suspects are tortured and made to go through degrading treatment, was found to be antithetical to the provisions of the Nigerian laws³ and International treaties. This also aligns with the findings of Amnesty International (2020) that the police in Nigeria have not complied substantially with UN Convention on torture.

The law and the criminal justice administration form the fulcrum upon which the police must operate in a civil society. This is because public perception of extortion, abuse and impunity of the police and the legal system erodes public confidence in the police. The study found that the era of oppression of the people and denying them access to public authorities is over as the presence of the social media and ICT, has integrated the youths into global events that shaped reforms such as the Black Movement in America and the Arab Spring of 2011.

³ In 2017, Nigeria put in place an anti-torture act in order to deter the police from maltreatment of citizens but the study showed that long term supervision of the police is the only way to guarantee that the law is being complied with by police authorities.



Protesters at Allen Avenue Junction, Lagos.

Source: Aljazeera, <https://www.aljazeera.com/gallery/2020/10/20/in-pictures-nigerian-anti-police-protests-continue>

Causes of the #EndSARS Protest

The study affirmed that the causes of the #EndSARS protest are multifaceted ranging from corruption, torture, extortion, harassment to human rights abuse of suspects (Alemika, 1993; Human Rights Watch, 2010). The study showed that there is a general disaffection with the Nigerian government because of lack of jobs for the Nigerian youths, high level of poverty and uncertainty of the Nigerian economy (World Economic forum, 2020).

The study found that the COVID-19 pandemic lockdown and its associated socio-economic crises contributed significantly to the general disaffection with the Nigerian government. This was evident in the way Nigerians resorted to the looting of COVID-19 palliatives and defied all odds in ransacking shopping complexes where they thought food items meant to be distributed during the COVID-19 pandemic were kept by the government (Ojewole, 2020; World Economic Forum, 2020).

Why the #EndSARS Protest Turned Violent in Lagos

The study found that the #EndSARS protest turned violent in Lagos because some of the #EndSARS protesters felt aggrieved that a curfew was imposed

and at the same time soldiers were deployed to the epicenter of the #EndSARS protest; Lekki Tollgate to intimidate them. Though the Lagos State Governor has denied deploying soldiers to the Lekki Tollgate, the general perception was that the soldiers were at the Lekki Tollgate to silence the aggrieved protesters and make Nigerians resort to the status quo (Amnesty International, 2020).

It was also unearthed that the aggrieved youths felt that the deployment of soldiers to Lekki Tollgate was politically motivated, hence the attacks on some of the property of a former Governor of Lagos State and property of Lagos State Government. This anger was expressed glaringly in the burning of some BRT buses, attacks on the Oba of Lagos and the burning of the historic Lagos High Court, which is over 150 years old.

Demands of the Youths and Nigerians on SARS and Police Reform

The study found that Nigerians are tired of police extortion and police corruption, and they wanted the Nigerian government to embark on comprehensive reform of the police. Though, majority of the respondents saw the setting up of Commission of Inquiry the #EndSARS violence, they believed that genuine and long-term reforms of the police will have a significant role to play in Nigeria's future. The study found that despite the poor perception of the police due to the SARS problem, many Nigerians believed that the police cannot be ignored in effective public security in Nigeria. This finding aligns with Tyler that the police remain very central to the maintenance of law and order in modern society (Tyler, 1990).



Orile Iganmu Police Station attacked by Hoodlums

Source: BBC, October, 2020; <https://www.bbc.com/pidgin/tori-54611171>



Burnt Lagos High Court, 2020

Source: Premium Times, <https://www.premiumtimesng.com/news/headlines/422983-how-hoodlums-took-advantage-of-endsars-wreaked-havoc-in-lagos.html>

Conclusion

This study has found that the #EndSARS protest in Lagos and in different parts of Nigeria, is a protest against police brutality and extra-judicial killings allegedly perpetrated by some officers of the disbanded Special Anti-Robbery Squad (SARS). The study found that the #EndSARS protest was also a protest against bad governance, poverty, unemployment, corruption, widespread insecurity and injustice in the federalist structure inherited from the military.

Though the #EndSARS protest was peaceful at the initial stage, the study found that the protest turned violent because of the aggression caused by the deployment of soldiers and the alleged massacre of some Nigerians at the scene of the violent protests. In view of the above, the research suggests Nigeria requires a comprehensive reform of the police in order for the police to earn the confidence of the Nigerian public. Such reforms must take cognisance of the welfare of officers of the Nigeria Police Force, the recruitment process, detention and interrogation of suspects, prosecution of suspects, funding of the police and overall compliance with the nation's constitution and international human rights treaties.

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CHAPTER

26

INSTITUTIONAL FRAGILITY AND SUSTAINABLE DEVELOPMENT GOALS (SDGs) IN NIGERIA: AN APPRAISAL

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Abstract

Strong viable political institutions are vital to the growth and development of every country of the world. The nature and character of the Nigerian state which has institutions that are considered to be alien to the people, coupled with lack of enduring and sustainable political institutional structures has left the region with a fragile political institutional structure making it difficult for the SDGs to proffer development solutions for the region. The primary focus of the SDGs which is how the menace of poverty, poor healthcare and educational issues especially in less developed countries in the 21st century can be tackled has become unattainable despite efforts being made over the years from during the periods of the Millennium Development Goals till date and this problem can be laid solely on the inadequate and fragile political institution the Nigerian state is saddled with. This study is an inquiry that seeks to investigate the nature and character of the Nigerian state which birthed the fragile political institutional structures thereby making the achievements of the SDGs goals and targets a herculean task. The study also interrogates policy measures and other efforts that have been put in place over the years in a bid to strengthen the fragile political institutions and how these measures have fared till date. The Study also seeks looks into ways through which the goals and targets of the SDGs will be actualised. Relying on Historical Institutional Theory, the study traces the history of the political institutions of the region pointing out their strengths and weakness and also the efforts made by the state in strengthening the fragile political structure over the years. The study adopts the qualitative research methodology which is based on the use of secondary data relying on existing materials and concludes that the issue of

strengthening the fragile political institutional structures for the success of sustainable development in Nigeria must be a concern to all stakeholders, including parastatals (public and private) and individuals. The study therefore recommends that key factors important for successful implementation of SDGs like high level of political support, institutional and human capacity development, inclusive of development process, and mutual accountability, are established and sustained. Policies which are consistent with international policies should not be left out also.

Keywords: Institutions, Fragility, Development, Historical Institutional Theory, Sustainability.

Introduction

The world leaders at the dawn of the 21st century were concerned with how the menace of poverty, poor healthcare and educational issues especially in less developed countries of the world will be solved. This is in a bid to close the widening gap between the rich nations of the world and the developing countries of the world where most people according to the UN reports (McArthur 2014) survive on less than one dollar a day.

This concern birthed the Millennium Development Goals (MDGs) in the United Nations Millennium Summit of 2000. The developmental goals were focused on taking critical action in curbing poverty and improving the conditions of the world's poorest population (McArthur 2014:3). Following the adoption of the United Nations Millennium Declaration, all 191 UN member states and over 20 international organisations were committed to help achieve the MDGs. These goals were however restricted to less developed nations of the world and the failure to achieve most of the goals and targets of the MDGs necessitated the birth of the SDGs which is geared towards not just completing the task of the MDGs but to also advance more goals that encompassed the whole world of both the rich and poor states this time around (UNDP 2016).

The ideas behind the SDGs is slightly different as it is comprehensive, far reaching and people centered set of universal goals targeted to be achieved by 2030. The SDGs goals in difference to the MDGs are built on the principles of Universality and Differentiation, encompassing the whole world and not only

developing nations as the goals are programmed to recognise different national realities and levels of national development, it was fashioned in a way that it respects the national policies and priorities of individual states. This makes the SDGs a plan of action for people, planet, prosperity, peace and partnership (PwC 2016).

However, for the SDGs to be a success, it requires strong and viable state institutions to help achieve the 17 goals and 169 targets by the year 2030. Sadly, this is lacking in the Nigerian state. The fragile nature of the Nigerian state, and its weak state institutions seem to lack the appropriate mechanisms for the achievement of these goals.

According to the OECD (2015), states are fragile when state structures lack political will and capacity to provide the basic functions needed for poverty reduction, development and also to safeguard the security and human rights of their population. Thus, a fragile state is one that is said to lack the necessary structures and institution mechanisms to carry out its core functions of providing the basic amenities for its citizens like food, shelter, and most of all security. The Nigerian state is obviously faced with the great task of achieving the SDGs by the year 2030 in light of prevailing issues such as terrorism, insecurity, corruption, poor enforcement of justice and human rights, and also weak governmental institutions all of which are indices of state institutional fragility thus making the achievements of the SDGs seem daunting (OECD 2016).

Efforts were made by the Nigeria state to achieve the Millennium Development Goals within the time frame of 15 years but sadly, institutional and structural challenges as a result of the fragility of the state made its achievement a herculean task. Now faced with the task of achieving the SDGs by the year 2030 and bedeviled with the same fragile institutional foundation, with no possible framework for the achievements of the SDGs, it may become an impossible one. Also, in the light of prevailing issues such as terrorism, insecurity, corruption, poor enforcement of justice and human rights, which are all indices of state institutional fragility, the achievements of the SDGs seem daunting (OECD 2016).

We therefore seek in this paper, to examine the nature and character of the institutions in Nigeria that has shaped the state and affected to an extent its achievement of the SDGs. We also seek to explore different policy measures that have been put in place over the years with the aim of strengthening the fragile political institutions for the achievement of the SDGs. The paper tries to suggest ways through which the SDGs can be achieved in Nigeria.

Theoretical Underpinnings

This paper is premised on the historical institutional theory which examines the institutions in the society historically while trying to explain the problems institutions encounter in the society. Basically, Institutions are supposed to order social, political, economic and cultural activities in the society. This is because they constitute the basis for human interaction and are germane in achieving human liberation from the societal bonds and constraints of nature thus, if these institutions are not properly constructed and managed, the state suffers a big disability.

The historical institutional theory can be said to be appropriate in the examination of fragile states as regards the achievement of the SDGs in Nigeria, as it seeks to investigate the constitutional and legal provisions of both the formal and informal institutions of the state. It is also aimed at discovering persistent patterns found within the state in order to expose strengths and weaknesses of these institutions. The theory also focuses on deeper and more resilient aspects of the social structure, as it considers the processes by which these structures, i.e. rules, norms, and routines, become established as authoritative guidelines for social behaviour (Scott, 2014).

For North (2005), the institutional framework consists of the political structure that specifies the way people develop, as he sees the structures as a reflection of our accumulated beliefs in a society over time, thus change in the institutional framework is usually an incremental process reflecting the constraints that the past imposes on the present and the future. Georg Friedrich Hegel (2010) however, sees the historical institutional theory as inherited traditional norms, customs and traditions which are legitimate only because they have passed the test of time.

The Nigerian state, is a state with weak and fragile institutions with origins marred by the uprooting of the traditional institutions of the state and importing of alien institutions by the British colonialists (Olowu, 1990). These imported institutions have since the Nigerian independence in the 1960 shaped her economic, political and social life. Colonial incursion in the Nigerian state also fashioned out a type of leadership that were subservient to the colonialists and have been unable to chart the course of development by strengthening the state institutions so as to provide the basic amenities and security for the people of the state (Olowu, 1990).

Thus, this theory as used in this paper, helps us to understand how the history of the Nigerian state institutions has developed over the years to what it is today. It also assist in understanding the constant evolution of the region and how factors like globalisation with its trappings has impacted the fragile state institutions making the achievements of the SDG's difficult.

The fragility of the Nigerian state clearly affects the achievement of the SDGs as its success depends majorly on the institutional structures present in individual states. The Agenda of the SDGs is hinged upon transparent, effective, inclusive and accountable institutions to advance poverty eradication and sustainable development. It aims also to ensure responsive, inclusive, participatory and representative decision-making at all levels, emphasising the importance of public access to information, protection of fundamental freedoms and the promotion of non-discriminatory laws and policies for sustainable development. The question of how Nigeria can achieve the 17 goals and 169 sub goals by the year 2030 then becomes mind boggling.

The Nature and Character of the Nigerian State

Nigeria's visions for the implementation of the SDGs focuses on leaving no Nigerian behind, integrating the SDGs in an inclusive and people centered manner and also focusing on institutional and policy strengthening. Thus, the new sectors and goals of the SDGs require new policies and strong institutional mechanisms through which they can be actualised. This poses a problem as the nature and character of the Nigerian state with its weak institutional framework is devoid of strong institutional mechanisms to carry the SDGs to fruition. This

section of the paper attempts an overview of the nature and character of Nigeria, and how it came upon its fragile status.

The Nigerian state is not a social contract state, but was fashioned out of colonial incursion and not from the will of the people to have a state (Shaapera, 2012). The State is thus institutionally constituted in such a way that it enjoys little independence from the social classes, particularly the hegemonic class, and so is immersed in the struggle of the class, which makes the state and its institutions, to be considered as illegitimate and lack autonomy (Olowu 1994). The Nigerian state's institutional history is intertwined between colonialism, military rule and democratic governance.

Institutions found within a state are supposed to be borne naturally from the fabrics of that state's history, culture, customs and tradition (Burns and Lindberg, 2016). In the case of Nigeria, state institutions were fashioned out and institutionalised by the British colonialists who discarded and disregarded the unique traditional institutions they met on ground, and implanted their modern institutional structures alien to the clime. Force was the instrument through which this feat was achieved and the creation of institutions that are authoritarian and totalitarian in nature (Olowu, 1990; Abdullahi, and Saka, 2007). This foundation shaped the nature and character of the Nigerian state which is responsible for the fragile nature of the state institutional structures felt by the inability of the ruling class to provide basic amenities for the masses, guarantee security of their lives and properties, guarantee and uphold fundamental human rights and freedom, and also provide a stable economy for the polity. The fragile institutional structure has also been unable to ensure the application of the rule of law, manage issues bordering on diversity, corruption, rising inequality, environmental degradation, and made it impossible to achieve the MDGs. What they have however succeeded in doing is personalising state powers and apportioning the resources of the state to themselves (Idike and Eme, 2015).

The level of fragility of the institutional structure and the blatant disregard of the masses by the ruling class, has led to the loss of confidence on the ability of the ruling class to govern or carry out their functions and have increased skirmishes, agitations and conflicts in the present fourth republic (Kwaja, 2009)

and the structures of state institutions are considered by the masses as alien and illegitimate (Olowu, 1990; Olowu, 1994; Fagbadebo, 2007).

The advent of colonialism in Nigeria, shunned indigenous traditional administrative institutions and they were seen as being inferior. Political, social, economic, educational and family institutions were also re-organised and restructured to suit the imperialists who imported their capitalist ideas to facilitate their extraction of resources from the Nigerian state (Olowu, 1994). Basically, colonialism succeeded in changing the Nigerian institutional structure thereby replacing age long practices, norms, and values with ill-suited colonial institutions (Ihonopi et al., 2013) this they did by replacing traditional governmental institutional structures and also re-organising and restructuring traditional systems, planting supposed modern institutions for ease of administration and exploitation designed solely for the purpose of extracting local resources, maintaining law and order over the whole country and superimposing a new system of justice over the traditional ones.

However, the effective pre-colonial institutions found in the Nigeria polity, prompted the British to make use of the political structures through the indirect rule system where the people were governed by their traditional rulers on behalf of the British (Ihonopi et al., 2005). According to Ekundare (1973) as cited by Fadakinte (2013) The British institutionalised colonial rule in order to protect her capital and to use the colonial state as the servant of imperialism. Thus, it can be deduced that the colonial state was not a social contract state, neither was it a product of antagonistic interests among social classes, i.e. it did not emerge to mediate between social classes with conflicting interests, it was a state created and sustained by force of arms, a state of conquest that succeeded in disorganising and displacing traditional state institutions (Olowu, 1994). The state was also an agent of imperialism and an instrument of economic exploitation and appropriation by the colonialists (Fadakinte, 2013). This basically means that the institutions implanted by colonialism was basically for the ease of administration and for extractive purposes they did not stem from the cultures and traditions of the people neither were they born out of history of the people (Badru, 1998).

Saddled with the legacy of institutions, and with a leadership not being in control of the institutions of governance at the time of independence in 1960, Nigeria had no choice but to produce a post-colonial society in which the flow of resources was similar to that of the colonial state. The artificial state created was left hanging without the backing of the colonial means of force, the state institutional structures became weaker and have remained weak, unable to carry out its functions.

Because of the lack of internal cohesion and with the absence of enduring institutions to form a stable government right from the first republic, conflicts festered and political power has on the long run become a do or die affair as the group that wins political power uses it as a private property at the expense of other groups. The fragility of the state institutions coupled with the inability of the dominant class to institute a hegemonic order, to build and maintain strong ties and institutions according to Lewis (2006) has thus made it almost impossible for the developmental goals and targets of the both the MDGs and SDGs to be achieved. It is thus apposite to state that the level of underdevelopment of the Nigerian state is a by-product of lack of strong institutional structures which has led to an accumulated deprivation, destruction, marginalisation, anger and frustration.

Indices of Fragility in Nigeria

Flowing from the nature and character of the Nigerian state, it is obvious that the factors that impede the success of the developmental goals in Nigeria have roots as far back as the colonial era when the state institutional structures were institutionalised. The fragile nature of the Nigerian state institutional structure has however become more glaring in recent times as there have been pockets of conflicts and crises especially since the 21st century there seems to be total breakdown of laws and order, which makes it seem like a herculean task for the SDGs to proffer developmental solutions for the country. We therefore examined some of the indices of fragility in the Nigerian state.

1. Illegitimate Institution

The institutions of the state in Nigeria are perceived by the people of the state as illegitimate and lack acceptances of the masses who consider them to be instituted for the service of the comprador bourgeoisie of the western capitalist

states who control the economic affairs of the Nigerian polity. The masses are of the view that all the state institutions were instituted for the exploitation and appropriation of the resources of the peripheral capitalist nation of Nigeria to the metropolitan states in the West. This lack of acceptance has deepened the feeling of suppression and dominion (Acemoglu and Robinson, 2010) making it difficult for them to accept any developmental solution from the west.

2. Inadequate and Inefficient Political Institutions

The inexperience of the ruling class that captured political power at the dawn of the fourth republic cannot be over emphasised, as since 1999 the ruling executive class has been unable to salvage the malformed political institutional structure they inherited. Kwaja (2009) posited that the fragility of the Nigerian state institutions presently is as a result of the inability of the ruling class to handle issues bordering on corruption, unemployment, high level of poverty, illiteracy, rising inequality between the rich and the poor, gross violations of human rights, cut throat electoral competitions, perceived Socio-economic and political marginalisation and domination of one ethno-religious group over another, etcetera. The inexperience and inefficiency of the ruling class is quite obvious as they are unable to maximise, articulate and implement policies and programmes that will better the socio-economic conditions of the masses, and foster unity and cooperation amongst the masses. This to Akov (2013) has led to widespread dissatisfaction and frustration and has climaxed in heightened conflicts and crises.

The inefficiency of the governmental ministries, departments and agencies cannot be left out as their inability to carry out their core functions of addressing social issues and human needs efficiently and appropriately has often resulted in the deadly struggle for ascendancy into positions of power and authority and has heightened primordial ethnic and religious alignments which has resulted in out bursts of violent conflicts in Nigeria since 1999 (Akov, 2013: 356; Achimogu, Agboni and Abdullahi, 2013:46).

3. Absence of Good Governance

Effective political leadership is primary for development and a government's institutional structure ill equipped with appropriate skills and tools to manage conflicting interests cannot bring about a change in the polity. (Valling and

Moreno-Torres, 2015) this is evident in the inability of the Nigerian state to produce a hegemonic leader to lead and inspire confidence in the people of the state. For example, in the Lagos region, the leadership has been captured by godfathers who dole out handpicked candidates to govern the state thus, good governance cannot be achieved as the leaders only listen to the dictates of the godfathers in the running of the state.

Thus, the leadership of the Nigerian state in recent time only exhibits weak, inefficient, lawless, nonchalant and evasive characteristics, and also seems uninterested in the welfare and development of the masses. This lack of good governance is manifested through heightened corruption, nepotism, illiteracy, unemployment, injustice, starvation, and has led to heightened conflicts and deepened poverty in the state. The inability of the fragile institutional structure of the state and its weakened capacity in addressing the above issues has made it difficult for the SDGs to be achieved in the country (Chinweokwu, 2013).

Brinkerhoff and Brinkerhoff (2002; 511) thus opined that: “When governance systems break down or are destroyed, the door is opened to instability, oppression, conflict and unchecked political and economic opportunism”.

The observation of Brinkerhoff and Brinkerhoff above is particularly relevant to Nigeria as the Nigerian institutional structures are extremely fragile, coupled with the belief of the people that the governmental institutions are weak, greedy, inefficient, ineffectiveness, corrupt and incapable of engendering good governance.

4. Inadequate Security and Law Enforcement Agencies

The Nigerian police and military are creations of the British colonialists and they were charged with the responsibility of protecting the interests of the British colonial master and they were completely alienated from the people and were perceived as corrupt and brutish by the people. They were inherited at independence with this same structure. They are said to be repressive and service oriented, serving the government in power and are often used as a tool by a repressing government to subjugate its opponents. The police force therefore, are guardians of social order, as they help to preserve, fortify and reproduce the prevailing social order and are not catalysts of change. In the case

of institutional fragility, the police have often been used by political leaders to suppress people from other groups in the society (Alemika and Chukwuma, 2003:21).

The Nigerian enterprise has been bedeviled with totalitarian regimes dubbed most corrupt and insensitive to popular demands. Operating in such a socio political and economic milieu, the Nigeria police have imbibed the negative attributes of corrupt bribe takers, intimidators, harassers, extrajudicial killers of innocent citizens, torturers of suspects, ineffective, insensitive, and callous (Idike and Eme, 2015:135).

Invariably, there exists intense mutual hostility between the police and the public in Nigeria. There is therefore no dependable foundation for the maintenance of law and order in Nigeria by the police. The harmonious working relationship between the police and the public, which is a prerequisite for effective police operation, is non-existent. This social nexus is exacerbated by the inadequate training, grossly inferior equipment, and poor remuneration of the police. This absence of an enabling environment hinders the effective maintenance of law and order in Nigeria. Little wonder the police cannot ferret out any of the culprits involved in the litany of murders committed in the nation thus, the police most especially, is considered to be inadequately prepared to handle conflict situations in Nigeria. (Akov, 2013: 352, Achimogu et al 2013:23) as cases have been reported of police officers running away from conflicts spots and removing their uniforms in times of conflicts and army officers running away from their duty posts when faced with insurgents and terrorists (Aleyomi, 2012:134). This anomaly has led to the breakdown of law and order with ethnic and religious groups taking laws into their hands since the government's security operatives are unable to protect their lives and properties. They have thus formed vigilantes and ethno-religious militia groups to protect their interests (Akov, 2013:352).

5. Marginalisation and Political Repression

What has been witnessed in the Nigerian polity since the 21st century and the dawn of a new republic is heightened political repression and usurpation of self-determination by the ruling class (Adebayo, 2006). Once a political gladiator captures political power, they intentionally perpetuate sectarian politics and

champion only the cause of their ethnic group excluding other ethnic groups from the corridors of power. These marginalised groups thus show their displeasure through agitations and conflicts (Adebayo, 2006).

This shows the wanton abuse of political powers by the use of political authority while in power to subjugate and relegate other ethnic and religious groups not in power to the background of politics. The state thus automatically becomes an “Ethnic state” that privileges one group at the expense of other groups preventing them access to state resources and the misappropriate sharing of the national cake (Olowu, 1994).

The monopoly of power by the ruling class is seen in the appointments of ministers, commissioners, chairmen of the parastatals, and other political office holders at all levels of governance since the fourth republic (Adebayo 2006). This has bred feeling of distrust and fear of one ethnic or religious group dominating the other and what follows is a pattern of ethnic suspicion and intrigue seen through allegations and accusations of neglect, oppression, domination, victimisation, exploitation, discrimination, marginalisation, nepotism and bigotry (Emelonye and Burgenthal, 2011) and the marginalised group shows their displeasure with the institutional structure through violent conflicts, aimed at correcting perceived forms of marginalisation and political repression (Achimugu et al. 2013; Adebayo, 2006; Nnoli, 1998).

Achieving the SDGs in Nigeria

The SDGs are built upon the foundations laid by the MDGs, they cover similar issues but have greater depth, reaching to areas such as environment, peace and economic growth while also providing opportunities as well as challenges for developing countries. The question of how the SDGs will thrive in Nigeria with its dysfunctional institutions built on shaky foundations and plagued by corruption and inefficient governmental apparatus arises. This fragile state situation has been a raging problem of the Nigerian state and has been recognised as one of the sources of the country's developmental issues (OECD, 2015; Jaiyesimi, 2016). Being that the 2030 SDGs Agenda recognises the uniqueness of every state and did not fashion out a formula for its actualisation for individual countries (OECD 2015:9), is thus imperative for some measures to be put in place for the SDGs to be achieved in the fragile Nigerian polity as

the levels of development of individual states must be taken into consideration and national policies and priorities must not be downplayed. This transformation will require more efforts to be put in areas like:

- a) **Socio-cultural Re-orientation**– There is a need for socio-cultural reorientation to meet some of the goals. For instance, goals 5, 12 and 13 speaking on women and girls, production patterns and handling the effects of climate change require a new kind of mind set and reorientation for them to be achieved.
- b) **Structural and Institutional Transformation**–To deliver services to the people require effective, efficient and resilient institutions that follow due process and standards. There is thus the need for the weak and shaky institutional structures alien to Nigeria to be restructured and reoriented to achieve goals 9, 16 and 17 of the SDGs.
- c) **Transparency and Accountability in Governance**– there is need for transparency and accountability of governance in Nigeria as several analyses of the challenges of development faced in Nigeria stems from the lack of transparency and accountability. A change in power relations and patrimonialism as well as a political system that engenders patriotism, participation and commitment of the people to the state are necessary for the achievements of the SDGs and its targets.
- d) **Human Development** – A state is said to be developed when it is able to provide the basic amenities required by its citizenry. Development thus implies the fulfilment of basic human needs including those for education, health and employment. The Nigerian state must thus look towards this as it is a sure way of achieving the SDGs by the year 2030.
- e) **Partnership with Development Partners**– There is need for partnership with development partners if the SDGs are to be achieved as external financing will be required. Nigeria was seriously under-aided and under-financed for the achievement of the MDGs. Therefore, for the SDGs to be actualised, there is need for partnership between government, the public sector and the private sector. There is also need for a re-vitalisation of the public sector, civil society, media and private sector to build a critical movement of people advocating for and implementing the change the SDGs preaches (Igbuzor, 2006)
- f) **Economic Reorientation** – for the SDGs to be achieved, there is a need for a strong economic institution that is not dependent on only one

product, i.e. there is a need to move away from the mono-cultural economic structure and an expansion of the industrial sector in Nigeria. There is also the need for the enactment of economic policies and programmes geared towards the empowerment of the poor in the society so that they will be able to meet their basic needs.

Conclusion and Recommendation

The looming challenges faced in meeting the time frame of achieving the 17 goals and 169 targets especially in a state with deeply fractured institutional capacity as Nigeria stares the country in the face. There is therefore a need for innovative responses that are embedded in partnerships and rooted in shared values of justice, fairness, equity and solidarity. This time around, it is imperative to ensure that the Nigerian state is not left behind in achieving the SDGs. Therefore, for the goals and targets of the SDGs to be achieved in Nigeria, there is clearly a need for conscious steps to be taken in the strengthening of the structures and institutions of the state and also a credible means of implementation.

Also, the issue of sustainable development in Nigeria, must be a concern to all stakeholders, including parastatals (public and private) and individuals as all available means should be employed to tackle the problems of fragility and its weakening of the state institutions. This can be achieved if key factors required for successful implementation of SDGs, among which are, high level of political support, institutional and human capacity development, inclusive of development process, and mutual accountability, are established and sustained.

Finally, policies which are consistent with international policies that will promote sustainability should be in place for the Sustainable Development Goals and targets to be achieved.

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SUSTAINABLE ENVIRONMENT AND URBAN GOVERNANCE

CHAPTER

27

DISASTER AND RISK MANAGEMENT IN LAGOS STATE: A CRITICAL ANALYSIS (CONFERENCE REFERENCE No. 005)

Augustine Nduka Eneanya

Abstract

The incessant occurrences of natural and human induced disasters have become a serious menace to the Nigerian society. Flooding disasters have continued to cause great concern for many cities across Lagos. This has attracted the attention of national and state authorities in adopting risk-based management technologies to combat flood disasters. Using disaster management cycle constructed as a framework for analysis, the paper critically analyses flood disaster and risk management in Lagos State in the context of command and control regulations. Though, risk-based management is a valuable step for environmental regulation, the paper argues that it is not properly addressed by previous studies. Moreover, the paper argues that despite the use of technological approaches, such as geographical information system (GIS), disaster mapping and remote sensing technologies so far employed by National Emergency Management Agency (NEMA) to combat flood disasters but gaps still exist, such as: the absence of the use of social media, market-based incentives for public-private partnership arrangement and ecosystem management to avert risks to human and environmental health. These are gaps which have not been exhaustively discussed by previous studies. Hence, the present study intends to interrogate disaster and risk management to bridge the gaps explored in literature. The paper concludes by suggesting that mitigation of flood disasters can be complemented by using the social media to supplement other communication platforms like radio, television and newspapers during disaster incidences. Furthermore, policy reforms on ecosystem management and market-based incentives using the public-private partnership arrangement to manage human activities on ecosystem should be introduced.

Keywords: Disaster management, hazards, risk assessment, social media, mitigation, and ecosystem management

Introduction

The global climate change has resulted in weather change and flooding disaster in Lagos State. This is causing great concern among the people. In part, the chain of events that lead from an unusually heavy rain to flood involves many factors, other than immediate weather. Other factors may be “responsible, such as: how wet the region’s soils already are; how high river and reservoirs are running; what kind of flood control devices are in place and perhaps most critically – how much the landscape has been altered and developed” (Hensen, 2008, p. 64).

Natural disaster is defined as “natural phenomenon that are sudden and calamitous, resulting from the combination of hazard, vulnerability and inability of a community to reduce the potential changes of risk from unexpected events that cause heavy damage, destruction” (Ekpeni & Ayeni, 2018, p. 88). Disaster can result in widespread losses to both human and material resources. Disaster can be categorised into “natural which includes flood, drought, earthquake, thunderstorm, heat waves and anthropogenic, which includes fire outbreak, food poisoning, building collapsed, plane crash, deforestation, chemical pollution among others” (Ekpeni & Ayeni (2018, p. 87).

The concept of Hazards, on the other hand, are natural phenomenon which have the potential to cause harm to environment, people’s health and property. Its events can also be grouped into “geographical hazard, caused by geologic, meteorological and climatic factors, such as: earthquakes, drought, flood, coastal erosion and biological hazards seen as severe array of diseases and infections outbreak” (Ekpeni & Ayeni, 2018, p. 87).

Both disasters and hazards are similar and can be used interchangeably. However, hazards are off-spring of disaster, if natural events, such as climate change and human action, such as deforestation or degradation of the

environment, which push hazards, and vulnerability into disaster. For this study, both disaster and hazard can be used interchangeably.

The concept of vulnerability can be seen as probability of being exposed to danger and adjustment to avoid it. In the context of this study vulnerability is defined as open to danger to human, material resources and environment.

Flash flood disasters and its risk reduction management have caused loss of properties, lives, environment and economy. For example, in 2015, more than 100,000 persons were displaced with 53 deaths; in 2016, 92,000 persons were displaced with 38 deaths; in 2017, flash floods affected 250,000 people in East Central region. In 2018, 200 people were killed in Nigeria (NEMA, 2018).

Moreover, land-use changes may play a huge role in flooding potential but deforestation appears to exacerbate the risk of flooding and landslides in most cases in Lagos State, since the water that falls can flow more quickly when its unimpeded by trees and undergrowth (Hensen, 2008). Water flows particularly easily across the acres of pavement that are laid down as cities expand into the country-side. Faster-flowing water is especially likely to feed into small-scale flash floods, which are even harder to monitor and analyse than larger river floods (Hensen, 2008).

Lagos State has witnessed Flood disaster across the metropolis. Flood disaster is said to occur if it has huge impact on people, property, economy and the environment. Disasters, both natural and man-made have left devastating impacts across the world. Lagos State is unique in Africa, with the highest concentration of population. It has “a population of 13.5 million according to National Population Estimate, and it is estimated to be 25 million by 2015. An average of 3,500-4,000 people migrate to it daily” (Olurode, 2009: p. 9). Among the 28 mega cities of the world, Lagos has “the worst urban living standard score of 19% as against Japan’s 81%, India’s 35% and Brazil’s 50% “Presidential Committee on Re-development of Lagos Megacity” (Olurode 2006, p. 2). It is the commercial nerve centre of Nigeria with increasing population growth and urbanisation, making majority of poor population to live along floodplains and slums. Lagos state is reputed to be prone to climate change among the coastal cities of the world (Adelekan, 2010, Young, 2013).

Moreover, Lagos State is a coastal city and often affected by coastal flooding caused by high sea levels, storm buy high winds, resulting in sea over-flowing into land, or wave action depending on wind speed inland flooding caused by intense rainfall, and influenced by micro-chip plastics blocking the drainage channels. This has caused re-occurring incidences of flash floods in Lagos State and its risk management implications .They include: using social media platforms, market-based incentives for public-private arrangement to manage the ecosystem and reduce environmental risks.

The purpose of this study therefore, is to critically assess measures undertaken in Lagos State to manage flood disasters and risk reduction management. Specifically, the critique would focus on the four components of disaster management cycle - preparedness planning, response, recovery and mitigation and its corresponding risk assessment implications and recommend the way forward.

In the light of this, the study is organised into four parts. Part 1 describes the background, purpose of the study, conceptual clarification, review of literature and conceptual framework. Part 2 describes methods, analysis and results. Part 3 discusses result, while, part 4 concludes the study and suggests the way forward.

Review of Previous Studies

Review of previous studies on flood disaster management cycle have focused on causes, impacts and remedies of flooding disasters. Causative factors, such as: climate change, topography of the area, land-use/land cover modifications, influence of canals, urbanisation and population growth among others were discussed in literatures (Odunuga, 2008, Aderogba, 2012a, Adelekan, 2013). The impacts of flood disaster on people and environment that resulted in mortality, physical injuries displacement of human population, spread of disease, submerging of buildings, destruction of urban infrastructure and disruption of economic activities were also addressed (Adigun et al 2013, Ugwu & Ugwu, 2013; and Olajuyigbe et al, 2012, Adelekan, 2013). Remedies to flood disaster in Lagos State, such as: urban planning, control of deforestation, early warning through radio, television and National Orientation Agency(NOAA), environmental education, use of Geographical Information

System (GIS), disaster mapping, remote sensing technologies, flood modeling, drainage systems and institutional approach of command and control by NEMA were discussed in literatures (Oshodi, 2013, Odunuga, 2008, Adeaga, 2008, Olorunfemi, 2011, Adelekan, 2013, NIHSA, 2013, Soneye, 2014, Nkwunonwo et. al, 2016).

Gap in Literature

However, these previous studies still leave gaps in knowledge regarding solutions to flooding disaster and risk reduction management in Lagos state. From the review of previous studies on disaster and risk management in Lagos, command and control regulation remained the focus of National Emergency Management Agency (NEMA), its branches at the State and Local Government levels and other affiliated Agencies. Previous studies did not adequately address the environmental politics and policy perspectives of the ecosystem management of flood disaster and risk reduction, especially using market-incentives or fiscal policy to encourage public-private partnership arrangements. Moreover, previous studies did not adequately address the use of social media platforms to manage flood disasters and risk reduction in Lagos State. These are gaps which the present study intends to discuss.

Conceptual Framework

Based on exploration of extant literature on flooding disaster and risk reduction management, this study constructed conceptual framework of analysis on flooding disaster and risk reduction management. This framework is justified because disaster management in Lagos State can be critically assessed within this framework in order to create a systematic process for risk assessment actions taken in each phase of disaster management and how priorities were set. Furthermore, this conceptual framework provides the necessary knowledge on which to base a broader critique about disaster and risk management in Lagos State, as illustration below:

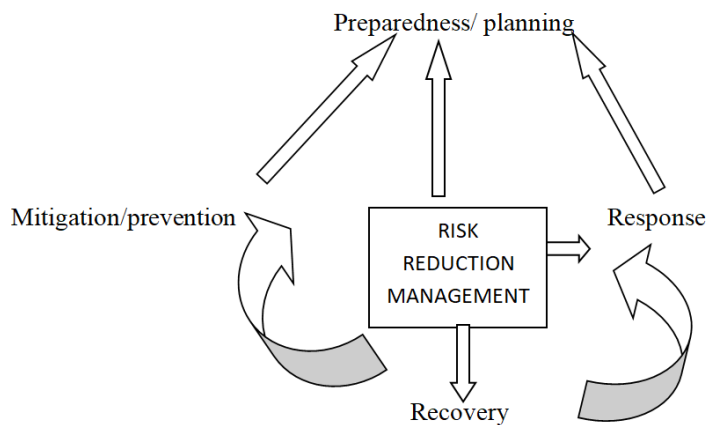


Fig. 1: Constructed Disaster and Risk Assessment Conceptual Framework

The components of this framework are described below:

Disaster management comes in four cycles, namely:

- Preparedness – Being ready in order to minimise loss or damage,
- Response – Actions when disaster strikes
- Recovery – Lessons learnt and actions taken during disaster to recover and rescue people, properties and rehabilitate victims
- Mitigation – All the things we can do to make us survive disaster and minimise loss of lives and properties (Ekpeni & Ayeni, 2018, p. 97; Iden, 2018).

The concept of risk refers to probability of exposure to effects of disaster to people and how they recover from a hazard. It expresses the harm people are likely to suffer on account of disaster. Risk assessment, therefore, is the “scientific process of using statistical methods to estimate how much harm a particular hazard can cause to human health or to the environment” (Miller & Spoolman, 2008, p. 324). It is a way to “establish priorities for avoiding or managing risks” (Miller & Spoolman, 2008, p. 324). It entails making use of “cost-benefit analysis or cost-effectiveness analysis to reduce environmental risks and allow for setting environmental policy priorities” (Kraft, 2007, p. 215).

Risk reduction management, therefore, involves “deciding whether or how to reduce a particular risk to a certain level and at what cost” (Miller & Spoolman, 2008, p. 325). It means determining options and making decisions about reducing or eliminating risk. The study adapts these definitions of concepts of risk, assessment, and management for its analysis.

This conceptual framework is justified because phases of flood disaster and risk reduction management in Lagos State can be critically assessed and gaps in extant literature revealed.

Materials and Methods

The study adopted qualitative research design. Data collection focused on in-depth interview and purposively sampled ten (10) respondents from NEMA offices in Federal, State and Local Government areas and documentary analysis of secondary sources, such as review of extant literature, journal articles, textbooks, administrative records of National Emergency Management Agency (NEMA), textbooks, internet and newspapers. Systematic and concurrent data collection and analysis were adopted using content – analysis technique. Content – analysis technique was adopted to elicit key concepts from note recordings, which were transcribed, edited, coded or categorised into key themes, such as: flood disaster management cycle; risk reduction assessment and management; public education and communication. Content analysis technique was adopted for this study because it makes it possible to “compare many texts and analyse their contents” (Neuman, 2014, p. 261). Validity of these research instruments were enhanced by precise explanation of the procedure followed and content categories used, while their reliability was achieved through inter-coder reliability technique of re-confirming statements and themes with respondents, whether they reflect their views or preferences. Thematic and secondary data analysis were adopted to explore measures undertaken by Lagos State in managing flood disasters and risk reduction, make critique and suggest ways of bridging the gaps in literature. This approach is consistent with previous studies of similar nature (Hakim, 1982, Baker, 1988, Denzin & Lincoln, 2003, Neuman, 2014).

From this methodological approach, the study attempts to assess measures undertaken by Lagos State government to manage flood disaster and risk reduction in order to suggest the way forward.

Measures of Flood Disaster and Risk Reduction Management in Lagos State

The threats to flooding in Lagos State have been tackled through a number of specific and general actions including institutional approach through the National Disaster Management Framework (NDMF), National Emergency Management Agency (NEMA), State Emergency Management Agency (SEMA), Local Emergency Management Agency (LEMA), and other affiliated agencies such as: National Orientation Agency (NOA), National Commission of Refugees (NCR), National Environmental Standards and Regulations Enforcement Agency (NESREA), which by 2009 Nigerian Acts supersedes and FEPA, Nigerian Meteorological Agency (NIMET), Nigeria Hydrological Services Agency (NIHSA), NET (Nigeria Environmental Study 1, Action Team) and Building Nigeria's Response to Climate Change (BNRCC) (Nkwunonwo, et al: 2015; NEMA, 2010).

NEMA is basically the nationally coordinating body for disaster management in Nigeria. It established National Disaster Management Policy Framework and National Disaster Response Plan in 2002 to coordinate and assist those in need in the event of disasters (NDRP, 2002). The framework provides a command and control mechanisms and regulatory guidelines for disaster Management in Nigeria. NEMA established functional disaster management units, such as: State Emergency Management Agency (SEMA) and Local Emergency Management Agency (LEMA) in all states of the federation, including Lagos State.

Prevention and Planning

NEMA is required to enlighten the public on disaster preventing, response, recovery and mitigation measures. It addresses threats to flooding disaster by coordinating policy formulation and regulations, capacity development of relevant institutions, support activities of Non-governmental Organisations (NGOs) and other stakeholders for effective and efficient management of disaster (NEMA, 2010). Early warnings and public education on flood disasters

and risk reduction nationally are supported by Nigerian Meteorological Agency (NIMET), Nigeria Hydrological Services Agency (NIHSA), National Orientation Agency, radio, television and newspapers.

Response, Recovery and Mitigation

Moreover, National Disaster Response Plan (NDRP) was established in 2002 specifically for formulation of policies, planning, exchange of information, response and recovery actions, especially under 13 Support Service Areas (SSAs) units established for states.(NDRP, 2002). Other stakeholders involved include: international donor agencies, non-governmental organisations, works departments, health officials, Red Cross, Military and paramilitary units, police, fire fighters, Ministry of Environments, private sectors, communities, civil society and volunteers (Adelekan, 2013, NEMA, 2010, Nkwunonwo, et al., 2016).

Lagos State relied on this regulatory framework in managing flood disasters and risk reduction management over the years, has made tremendous efforts to supplement NEMA's efforts. For example, structural and non-structural measures were made. Structural measures included:

- (i) Establishment of emergency command and control centres (SEMA) in 2011;
- (ii) Development of Lagos mainland storm water drainage layout in 1974;
- (iii) Establishment of Apapa and Lagos Island storm water drainage master plans and concrete lining of drainage channels in 1992;
- (iv) Construction of breakwater in Lagos Bar Beach section of Atlantic Coast in 1998;
- (v) Dredging and maintenance of 32 rivers (about 52 km) in 2011;
- (vi) De-flooding and de-silting of drainage;
- (vii) Demolition of buildings in some flood-prone locations of Agege and Ijeshatedo in 2011; Ijora-Badia in 2010, 2012 and 2013(Adelekan, 2013);

Non-structural measures included:

- (viii) Policy framework for urban development guided by land use plans and zoning regulations;
- (ix) Private developers to build according to zoning regulations and not building in areas vulnerable to flooding and wetlands;

- (x) Setting up management regime under Ministry of Environment;
- (xi) Public education and awareness raising;
- (xii) Greening of lands;
- (xiii) Decentralisation of building control agency to divisional and local government levels;
- (xiv) Engaging private developers to build low-cost houses, such as Eko Atlantic city; and
- (xv) Establishing regulatory mechanisms (Acts) for land use and deforestation (Adelekan, 2010, 2013)

Results, Critique and Discussion

- **Over-centralisation and multiplicity of disaster managing institutions involved in prevention, planning, response, recovery and mitigation**

An assessment of the flood disaster and risk reduction management in Lagos State showed that command and control regulations dominated flood disaster management and risk reduction phases, which often led to bureaucratic bottlenecks, inter-agency and inter-government conflicts in information-sharing and confusion in operational activities. Lagos State reliance on operational mechanisms and regulations makes flood disaster management to be too centralised and expensive. Disaster management in Lagos State that disaster and risk management are driven by command and control regulations and burdened by bureaucratic bottleneck. National Emergency Management Agency and other agencies (such as National Environmental Standards and Regulations Enforcement Agency (NESREA), National Commission of Refugees (NCR), Nigeria Hydrological Services Agency (NIHSA), State Fire Service, Police Force, Civil Defence Corps, Ministry of Works, Ministry of Health, Non-governmental Organizations, Volunteers, Civil Society, Army, National Orientation Agency (NOA), State Emergency Management Agency (SEMA), Local Emergency Management Agency (LEMA), among others collaborate and cooperate to manage flood disaster and risk reduction events in Nigeria, Lagos State inclusive. Disaster policy is often criticized that it relies too heavily on centralised, technically driven, command and control regulation in which government sets environmental quality goals, methods to achieve them, and deadlines, with penalties for non-compliance

(digitalassets.lib.berkeley.edu). Aside from the issue of costly inefficiencies, such regulation is often said to be poorly conceived, cumbersome, time consuming, arbitrary, and vulnerable to political interference (Danes & Mazurek, 1998, Sexton et. al, 1999). With this complex command and control regulations of these inter-agencies and inter-governments' collaboration during flooding disaster, there is always confusion in rescue operation, leading to delay and loss of lives. With poor funding of disaster operations, Lagos state was bound to rely on international donor agencies, NGOs, private sectors, individuals, communities and volunteers. This often lead to corruption, buck-passing and confusion in efficient and effective flood disaster management and risk reduction. This calls for institutional reforms. A more fundamental way to reform natural resource policies as well as pollution control efforts is through the use of ecosystem management. Historically, governments developed policies to deal with discrete elements of the environment, such as forests, water, soil and species, often through different federal agencies and without coordination among them. Since its establishment, National Emergency Management Agency (NEMA), focused on environmental health and public safety issues and paid little attention to maintenance of ecosystem health. The agency also rarely has coordinated efforts across the separate media of land, water, and air.

These conventional approaches have contributed to ineffective and inefficient environmental policy. They have also resulted in public policies that concentrate limited resources on small public health risks that bring few benefits and high costs while larger risks are ignored.

- **Ecosystem Management**

The more comprehensive ecosystem management approach has gradually established a foothold (Cortner & Moote, 1999). It reflects advances in ecological research that are beginning to build an understanding of ecosystem functioning. To some extent, it also incorporates ideas of ecological rationality advanced by social scientists (Bartlett, 1986; Costanza, Norton & Haskell, 1992; Dryzek, 1987). Rather than focus on individual rivers and localised clean-up efforts, for example, emphasis has shifted to entire watersheds and the diverse sources of environmental degradation that must be assessed and managed (Daily, 1997). New approaches to ecological risk assessment will

provide the necessary knowledge on which to base a broader, more holistic and better focused attack on environmental problems. Such assessment can create a systematic process for clarifying risks and setting priorities (USEPA, 1992b). Besides, ecosystem management in Lagos state has focused on environmental health and public safety, but little attention has been paid on maintenance of ecosystem health across the separate media of land, water and air.

- **Politics of Land Allocation, Acquisition and Reclamation**

Land Use Act was passed into Law in 1978 in Nigeria. The Act vested authority on “all lands situated in the territory of each state in the country to the Governor of State, including all lands control and management” (Waziri, 2018, p. 264; Mabogunje, 2009). Land allocation in the “urban areas must be carried out by the Governor and issuance of Certificate of Occupancy (Cof O) and also decide which vacant land is to be acquired for public uses”. (Waziri, 2018, p.264). Land use policy assists in “urban planning because it helps the government share land to each section of the society for human settlement, for industries, road construction, transportation system, economy, and urban infrastructure” (Waziri, 2018, p.264). What follows is abuse of power by state government by forceful acquisition of land through demolition, high cost of processing Certificate of Occupancy and corruption inherent in title registration by government officials, leading to over-population at coastline or flood plains where is considered accessible with make-shift huts. Unemployed people migrating from rural areas and seeking jobs in urban areas constitutes problem of growth in population, cause disposal of wastes to unauthorised places. The absence of workable housing policy compounds the problem of urban sprawl as people build houses even under high tension wire and unauthorised places, especially those displace by flood hazards, also creating problem of waste management and drainage system. Reclamation of land in Lagos has become an important method of land acquisition by the rich and political Actors, depleting the environment with attendant health risks and safety of lives. Acquisition of land is often in favour of political Actors of the ruling party chieftains, political godfathers, elites and wealthy individuals in the state, with making plans for flood control or adhering to environmental policy guidelines

Moreover, the Environmental Impact Assessment Act No. 86 of 1992 requires that before a project is executed, the impact of the environment must be assessed, but Executive default powers are used to undermine the EIA Act, 1992. There is a “legacy of environmental degradation and public health impairment arising from projects whose approvals were purportedly obtained under the EIA Act” (Okeke, 2018, p. 316). This is often the case with land administration over the years. So, environmental policy inconsistency, politicisation and abuse of the implementation of the Land Use Act 1978, careless waste disposal, blocking drainage channels with wastes non-adherence to EIA Act, 1992 guidelines, the problem of urbanisation and population growth contribute to environmental degradation and flooding hazards in Lagos State. Soothe politics and abuse of “land use policy, land reclamation of wetlands and flood plains, deforestation through timber trade and other human activities are responsible for the “growth of urban sprawl and since politics involves the use of state power to determine who gets what and how” (Waziri, 2018, p. 269), adherence to the Land Use Act provisions and environmental policies would remain a mirage”.

- **Use of Private Developers and Urban Housing Policy**

Private developers have been utilised instead of market incentives or fiscal policy to encourage private sectors’ participation in building low-cost housing units that has made housing for the poor unaffordable. This has affected urban housing policy as poor people relocate to slums areas and floodplains where houses can be affordable.

- **Public Education and Enlightenment**

Lagos state has not utilised tools of information and communication technologies, especially the use of social media, such as: Facebook, Twitter, WhatsApp, mobile Apps, YouTube, Instagram and LinkedIn, and so on) to educate people and bring about attitudinal change on throwing of micro-chip plastics and sachet water nylons to gutters and drainage channels. Using traditional media, such as: National Orientation Agency’s communication channels- radio, television and newspapers, Nigerian meteorological agency forecasting and Nigeria Hydrological Services Agencies early warnings can help enlighten the members of the public.

The rising trend in the use of information and communication technologies (ICTs) have been ignored in disaster and risk management. Although, public education through National Orientation Agency (NOA) and a range of news media, such as broadcast television, radio and the Internet are generally the best way to enlighten people of an impending disaster, social media also play supplementary roles before, during and after disaster incidence. The use of social media platforms is now trending in disaster and risk management all over the world. Mobile Apps platforms, such as: LinkedIn WhatsApp, Imo, Yahoo Messenger, Snapchat, YouTube, MSN Messenger, Facebook, Twitter, Flickr, among others, can enable disaster management officers to prevent, respond, rescue victims and mitigate public safety challenges (Cohen, 2013, Sarcevic et al. 2012). An organized response to disaster management (DM), using social media is crucial to mitigating loss of lives and damage to infrastructure. Information sharing and coordination are “critical factor in DM, especially among responding organizations” (Yates & Paquette, 2011, Bharosa, Lee & Janssen, 2010, pp. 6-13).

During natural disasters, access to relevant and timely information are from both official’s responders and volunteers (Taylor, Wells, Howell, & Raphael, 2011). It offers opportunity for distressed individual and family members to be connected (Simon, Goldberg, & Adini, 2015; Taylor et al, 2012). Facebook is the largest social media network, with 1.35 billion monthly active users (Facebook News room, 2014). The users of Facebook have the ability to connect and share thoughts and information with friends, family members and groups with common interests.

Social media provides opportunities to disseminate information to the public and also receive information from them. Social media have been of tremendous help in terms of improving preparedness in disaster incidence by connecting the public with day-to-day, and timely information. For example, Mobile Apps can be used to share meteorological information including news about rainfall, snowfall and other weather conditions. Social media helps professional responders, such as Fire Service Unit, Works Department, Police, and Red Cross, among others to share information with citizens during crises (Merchant et al, 2011).

Social media are very useful during recovery efforts after crises, when infrastructure must be rebuilt and stress management is critical. The extensive reach of social networks allow people who are recovering from disasters to rapidly connect with needed resources (www.nejm.org). Tweets and photographs and interactive maps can help recover community's capabilities and vulnerabilities in real time. Organisations such as "Ushahidi have helped with recovery in Haiti by matching volunteer healthcare providers with distressed areas" (Merchant et al. p. 291). Social media "have been used in new ways to connect responders and people directly affected by such disasters as the flash floods in Australia with medical and mental health services" (Merchant et al. 2011, p. 291).

Tools such as "crowdsourcing (collecting information from a large group of people via the Internet) and data mining bolster disaster relief effort" (Gao, Barbier, & Goolsby, 2011, pp 10-14). In addition, Aid agencies uses text messages and mobile calls increasingly in fund raising, giving them rapid access to funds donated by members of the public (Adekoya, 2016).

Furthermore, crisis mapping is one of the social media response to crisis. It began in the 2000s and was popularized after Patrick Meier crisis mapper – in 2010 launched a crisis map hours after the earth quake in Haiti. In 2016, crisis mapping is commonly used for real-time updates in response to natural disasters and acts of terrorism (Dillon, 2016). So, public service agencies or interested individuals require it for real-time response to crisis.

Overall, "the use of social media should be encouraged to enhance the public's capacity to manage and control disaster. Social media are reliable during disasters when other channels are overwhelmed (www.igi-global.com). Besides, social media can "self-regulate misinformation in emergencies through the masses" (Simon, Goldberg & Adini, 2015, pp. 609-619).

Conclusion

This paper has critically examined the measures undertaken by Lagos State in managing flood disaster and risk reduction. They were: channelisation of various canals, building of bridges, culverts, drainage systems to evacuate storm water, modeling system experimentation, relocation of human

populations during flooding and public education using television, radio and National Orientation Agency channels. These actions can be referred to as command and control regulations coordinated by National Emergency Management Agency (NEMA), State Emergency Management Agency (SEMA) and Local Emergency Management Agency (LEMA).

This paper criticised these approaches as being inadequate for flood disaster and risk reduction management. It argued that these approaches promote bureaucratic bottlenecks during disaster management operations and confusion in information-sharing. Rather than focus on this traditional regulatory actions, the paper argued that there are policy alternatives to manage flood disaster and reduce risk on people and environment. The study argued that the command and control regulations should be reformed and National Incident Management System (NIMS) established as done in United States of America. This best practice can be borrowed to handle flood disaster management activities. The use of multi-organisation approach affect swift actions and efficiency. Besides, many environmental problems cannot be addressed effectively with traditional regulatory tools alone, but giving market-based incentives would encourages public-private partnership arrangement.

Moreover, the ecosystem management in terms of rehabilitation and restoration of environment health should be addressed in addition to public health and safety issues. Environmental health as it affects land, air and water should be addressed holistically for comprehensive rehabilitation and restoration.

Furthermore, public education, using social media, such as Facebook, Twitter, YouTube, Flickr, Google+, among others, should be of great help before, during and after flood incidence. The paper further argued that interfacing flood disaster management cycle with risk assessment would help disaster managers decide what and how much to regulate. Comparative risk assessment can be especially useful in setting priorities of action by National Emergency Management Agency (NEMA), Lagos State Emergency Management Agency (SEMA) and Local Emergency Management Agency in order to concentrate resources on most pressing flooding risk and problems. In

sum, if the impact of flooding is to be reduced in future, the consequences of rapid urbanisation, poor urban planning and land use policy need to be addressed.

Way Forward

Disasters both natural and man-made have left devastating impacts across the world. Governments at all levels are charged to prepare and react appropriately when they know natural disasters, such as flooding disaster, tornadoes or hurricanes will impact their respective boundaries. No level of preparation can mitigate the damage done to communities. So, what is the way forward? They are as follow: -

1. Institutional Reform

There is need for institutional reform to address the threats of flooding in Lagos State, especially the reform of command and control regulations of NEMA and its affiliates. The present study recommends a National Incident Management System as done in United States of America. Following this best practice, the use of National Incident Management System (NIMS) would be a good substitute. The establishment of Incident Command System as a sub-unit or replacement of National Emergency Management Agency (NEMA), and other associated affiliated agencies and organisations would resolve the issue of multiplicity of disaster management organisations. This command system should be under a designated authority of a leader in the entire disaster management structure, including communication. National Incident command system is helpful across the broad spectrum of incident response structures and also seek to break communication barriers, thereby, easing out bureaucratic bottlenecks during disaster management operations. (Iden, 2018).

2. Environmental Policy Reform and Political Will

Lagos State and local governments have essential roles to play in disaster and risk education management. This is because democratic decision-making and public support are crucial to successful environmental politics. They are important also in the “formulation of environmental policy that is both technically sound and socially acceptable” (Kraft, 2007, p. 11). For example, environmental policies in turn shape the ecosystem management. People misuse natural resources, especially common-pool resources, such as the

atmosphere, surface waters, and public lands, where there is no enforcement to extant environmental laws or policies. Sometimes, natural resources policies have the perverse effect of encouraging the very degradation they are designed to prevent by setting artificially low market prices, for instance, use of public lands for timber harvesting, land reclamation for political associates' housing, mining or grazing, through government subsidies to resources /users (Burger & Gochfield, 1998). This action of governments can lead to the exploitation of these natural resources to the point of depletion. State and local government authorities because of financial benefits in land reclamation and deforestation fail to consider the value of environmental damage, such as loss of forest or wetland habitats, and the environmental health.

With rapid urbanisation, there is massive encroachment into quality farmlands, deforestation and loss of surface vegetation along the coast line and flood plains. The unprecedented land reclamation activities without strict adherence to the Land Use Act of 1978 and natural waterway planning is alarming in Lagos State. The lack of political will to enforce the content of the Land Use Act is lacking. The actions of governments, especially at the state and local government levels in Lagos State have in itself contributed to flooding disasters because, there is no synergy between housing policy and land use policy. To avoid the risk of future flooding in Lagos, the Ministries of Environment should address these lapses, in addition to public health issues due to environmental degradation and depletion.

3. Rehabilitating of the Depleted Ecosystem

Rehabilitating degraded Ecosystem, entails that Lagos State government should strive to sustain the environment through increased impervious covers or land cover modifications of ecosystem. Human activities have depleted the earth surface by filling in wetlands, (land reclamation) or converting grasslands and cutting forests to crop fields and urban areas. How do we rehabilitate the wetland? Government should embark on tree planting efforts campaign and prevention of forest fire.

By planting trees primarily on deforested and degraded land, government can “rehabilitate and restore ecosystems that have been damaged; that is, the process of repairing damage caused by humans to natural ecosystems. This

can be done by “replanting forests, flood shelters restoring grasslands, restoring wetlands and stream banks reclaiming urban industrial areas and freeing river flows by removing dams” (Ekpeni, & Ayeni, 2018, p. 98)

To sustain “depleted and degraded environment, the Lagos State Government needs to rehabilitate and restore ecosystems that have been damaged” (Miller & Spoolman, 2008, p. 170). The following approaches to rehabilitate and restore damaged ecosystem will suffice:

- Restoration to its natural state. This can be done by landscaping the coastal plain areas with diversity of plants natural to the area;
- Rehabilitation –replanting trees to reduce soil erosion or flooding in areas such as coastal plain, clear-cut forests or landfills;
- Replacementa -productive pasture or tree farm may replace degraded forest;
- Creating artificial ecosystems – creating artificial wetlands to help reduce flooding or to treat sewage.
- Identify what caused the degradation, such as farming overgrazing, mining or deforestation and stopping the abuse by eliminating or sharply reducing these factors; and
- Finally, protecting the area from future degradation (Miller & Spoolman, 2008, pp.170-171).

Though, risk-based management is valuable step for environmental regulation, it is ultimately too narrowly focused to justify the regulation of adverse outcome or provide adequate framework for more complex and creative tasks of environment management. Therefore, depleted ecosystem can be rehabilitated and restored through these strategies.

4. Use of Market Incentives to Drive Public-Private Partnership Collaboration

Many environmental problems, such as flood disaster cannot be effectively addressed with traditional regulatory tools alone, but incentives through fiscal policy, such as tax credits or tax holidays or waivers may be useful supplements. Encouraging public-private partnership arrangements through fiscal policy or market-incentives can promote building of affordable low-cost houses. This would reduce the motivation to relocate to slums or flood plains.

Moreover, imposition of green taxes for timber harvesters or charges to discourage corporate degradation of the environment would also promote ecosystem management. Finally, mega-city design through public – private partnership around plains where shanty houses abound. Besides, the arrangement can promote rehabilitation programmes along the flood plains, using tree planting to reduce soil erosion, drainage system against flooding or sustainable waste disposal management. Using market-incentives or fiscal policy for public-private partnership arrangements is a way forward for flood control in Lagos State.

5. Public Education in Disaster Management Using the Social Media

It is argued in this study that social media has been neglected in managing flooding disasters and risk reduction in Lagos State. The use of social media to address flood disaster management in Lagos State, has not be adequately addressed by previous studies. Based on best practices from other climes, reducing flood risk through communication can be achieved by using social media. The use of social media, particularly, mobile Apps, such as, Facebook Twitter, Google+, Flickr, YouTube, WhatsApp, Linkdin and others have been very useful in managing and controlling flood disasters in other climes, such as Haiti, Australia, USA and so on. Mobile Apps can play supplementary role in every warning system, especially to friends and family members, who might miss the initial broadcast from television and radio. The social media are also useful before, during and after flood disaster events, even throughout the disaster management cycle (preparation, response, recovery and mitigation/prevention). Lessons from these developed countries in the use of social media can be of tremendous help in combating flood disasters in Lagos State.

Furthermore, crisis mapping is also one of the social media that is used in response to crisis. The use began since 2000s. It was used in Haiti's earthquake of 2010, Christchurch Newzealand earthquake of 2011 and Nepal earthquake of 2015(Dillon, 2016). The crisis map created in response to Christchurch, New Zealand's 6.3 earthquakes in 2011 which killed 183 people, shared location – based data about open shelters pharmacies, hospitals, super – markets and more (Dillon, 2016). Public Service Agencies in Lagos State or interested organisations can also use crisis mapping as a useful real-time response to flooding crisis in Lagos State.

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CHAPTER

28

EFFECT OF ENERGY CONSUMPTION ON ENVIRONMENTAL DEGRADATION IN NIGERIA

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Abstract

This study investigates the effect of energy consumption on environmental degradation in Nigeria between the period of 1980 to 2017. The short and long runs relationship was estimated using autoregressive distributed lag (ARDL) technique while secondary data were sourced from World Development Indicators (2017). The result emanating from the study showed that energy consumption and urbanisation showed significant effect on environmental degradation both in short and long runs. However, the effect of economic growth, its square and trade were not supported by the findings. Thus, the Kuznets hypothesis was not validated in the context of Nigerian economy. The study, therefore, recommends that the governments and policymakers should undertake even development policies across the country to discourage urban migration resulting from uneven development. Also, unnecessary energy consumption should be evaded to save the environment.

Keyword: Energy Consumption, Environmental Degradation, Carbon dioxide Emission, GDP.

1. Introduction

The global use of energy is speedily increasing as a result of increase in population besides economic growth especially in developing countries due to inability to effectively manage population growth. Energy provides services which are essential for economic growth, improved standard of living and catering for the increasing population by supporting the development of

industry, agriculture, transport and technology among others. However, these contributions have also led to negative impacts on the environment. The global challenges of climate change, environmental degradation and food security are directly linked with the use of energy among developing countries which has been on the increase in recent decades. This has continued to escalate global trade, economic activities and negatively triggered an enormous increase in carbon dioxide (CO₂) emission into the environment with its corresponding environmental degradation and other environmental hazards inflicting the atmosphere.

As noted earlier, energy consumption is one of the major factors promoting environmental degradation, thus, optimal generation of energy resource, its utilisation and equitable allocation with proper management of its effect on the environment can bring about economic growth while maintaining sustainable development simultaneously. According to International Energy Agency (2010), it was projected that the average energy uses per person in the world increased by 105 between 1990 and 2008. The total energy consumption in 2008 was about 474 exajoules (132,000 TWh). The report further stated that this increased by 170 percent in the Middle East, 66 percent in Latin America, 20 percent in the US, 70 percent in Africa and the world overall grew by 39 percent. Moreover, Africa consumes 4.2 percent of the world energy produce for industrial purposes (IEA, 2010).

Like other developing economies, energy consumption in Nigeria has improved the productivity of labour, capital accumulation, production and technology but it has also had negative impact on the environment considering the trend in energy use. According to Shuabu and Oyinlola (2013), the total CO₂ emission from combustion fuels in 2009 was 41.2 percentage though electricity and heat generated 8.2 percent. Energy industry was 4.5 percent while the manufacturing and construction sectors emitted 3.1 percent. The transport sector with 24 percent with the road sector component dominating as the highest emitter of CO₂. Other sectors emission was cumulated at 2 percent. Thus, the pursuit of optimal development, equitable allocation, efficient management of available energy resources, and efficient utilisation can put the economy on the part of sustainable development.

One of the major problems developing countries like Nigeria is likely to face if the present trend is not cautioned is the high rate of environmental degradation caused by numerous factors as a result of present levels of energy generation and use. The increase in energy use will aggravate the situation unless important steps are taken to prevent the adverse effect. Many have regarded environmental degradation and pollution as the price to be paid in order to achieve economic growth while others have argued that the two are interconnected and mutually supportive. Furthermore, the damage caused by combustion of fossil fuels in their production and transportation also impose environmental cost such as leaks and spills during oil and gas production, coal mining and drilling of lands which causes air pollution and gas emission during the processes of production.

The most pressing global challenges of energy use and climate change needs to be addressed especially in the Nigerian economy in order to aid resource utilisation. Therefore, this paper contributes to literature on the relationship between energy use and environment degradation in Nigeria. The paper is motivated by two purposes. One, existing studies in the literature in the context of Nigeria have largely focused on the relationship between energy use and economic growth neglecting negative impacts on the environment. Thus, this paper fills this gap in the literature. Secondly, the recent increase in energy use has called for concern among policymakers and academic alike, thus it is expedient to investigate the relationship if the country is going to achieve sustainable development as currently being pursued among countries. The study is structured as follows. Section 2 delves on literature review while Section 3 handles methodology. Presentation of empirical results and interpretation make up Section 4 while the last section is conclusion with policy recommendations.

2. Literature Review

The demand for reduction in energy consumption is needed to alleviate environmental degradation in order to aid energy efficiency. Empirical studies that investigated the relationship between energy consumption and economic growth are vast but with mixed results. While some scholars investigated the relationship between energy consumption and economic growth; some looked into bi-directional relationship between energy consumption and economic growth while others dwell on the causal relationship between the two variables.

Numerous authors have studied the relationship between energy consumption and economic growth starting with the pioneering work of Kraft and Kraft (1978), who found a unidirectional causality from GNP growth to energy consumption in USA for the period between 1947 and 1974. Other scholars such as Masih and Masih, (1996); Cheng and Lai (1997); Ghosh, (2002); Shiu and Lam (2004); Wolde-Rufael, (2005); Galip Altiny, (2005); Zhang and Cheng (2009); Orhewere and Machame (2011) and Dantama, Umar, Abdullahi and Nasir, (2012).

A uni-directional causality between electricity consumption and income was found by Galip Altiny, (2005) in analysing the relationship between electricity consumption and real GDP in Turkey between 1950 and 2000. The study found that electricity supply was necessary for economic growth. Wolde-Rufael, (2005) using Bound co-integration and vector autoregression considered the long run relationship between energy use per capita and per capita real GDP for 19 African countries between 1971 and 2001. A long run relationship was found between the two series for 8 countries and causality for 10 countries. By applying the error correction model to examine the relationship between real GDP and electricity consumption and in China, Shiu and Lam (2004) found a unidirectional causality running from electricity consumption to real GDP and not vice versa.

By employing multivariate causality study for China, Zhang and Cheng (2009) found a unidirectional relationship between GDP, energy consumption and carbon emission in the long run, but neither energy consumption nor carbon emission led to economic growth. Orhewere and Machame (2011) reported a unidirectional causality from electricity consumption to GDP in the short run and bi-directional causality between the variables in the long run in examining the relationship between energy consumption and economic growth in Nigeria between 1970-2005 employing vector correction-based granger causality test while Dantama *et al.*, (2012) used ARDL approach and co-integration to examine the impact of energy consumption on economic growth in Nigeria. The study showed long run relationship between economic growth and energy consumption.

The findings of a bidirectional relationship are affirmed in studies like Soytas and Sari (2003); Hou, (2009); Omotor, (2008) and Akinlo (2008). According to Hou (2009) and Omotor, (2008), increase in energy consumption will speed up economic growth but a rise in economic growth will accelerate energy consumption. Using time series data of energy consumption and GDP and re-examining the causal relationship between the two series in top 10 emerging markets (excluding China) and the G-7 countries, Soytas and Sari (2003) established a bidirectional causality in Argentina in which causality runs from GDP to energy consumption in Italy and Korea and from energy consumption to GDP in France, Germany, Japan and Turkey. Akinlo, (2008) found a bidirectional relationship between economic growth and energy consumption for Senegal, Gambia and Ghana. The causality test showed that economic growth granger cause energy consumption in Zimbabwe and Sudan in the study to examine the relationship between energy consumption and economic growth in eleven sub-Saharan countries using ARDL bound test.

The empirical findings resulting to no causality between energy consumption and economic growth was assumed by George and Nickoloas, (2011); Ezatollah *et al.*, (2010) and inferred that policies directed towards energy conservation will not hinder economic growth. Ozturk, (2010) and Payne, (2010) conducted meta-studies and concluded that economic output and energy consumption are interrelated but causality evidence was mixed. Employing multiple mathematical and statistical model, Costantini and Martini (2010) used range of different countries to set the link but there was a divergent result on the causality due to the model specification and the types of countries analysed. Shuaibu and Oyinlola (2013) employed Gregory-Hansen cointegration test and Zivot-Andrews unit root test, they found no causal link amid CO₂ emission and energy consumption to economic growth due to structural shift.

The link between energy consumption and environmental degradation are complex and not easily predicted. The causal relationship is based on Environmental Kuznets Curve (EKC) hypothesis which presume a significant relationship between economic growth and environmental degradation. Using EKC and employing both aggregated and disaggregated energy consumption data for the period between 1980 and 2009, Sabori and Salaiman (2013) examine the long and short run relationship among economic growth, carbon

dioxide (CO₂) emission and energy consumption. The study employed ARDL and Johanson-Juselium maximum likelihood, while the causality test was based on vector error correction model. The result show that the findings was not in support of an inverted U-shaped when aggregated energy consumption was used. But on using disaggregated data from different energy sources, EKC hypothesis was confirmed. Rahman and Rashid (2017) investigated the impact of energy consumption on environmental degradation under 30 multivariate frame work for emerging and frontier Asian countries and found the presence of 34 Environmental Kuznet Curve (EKC).

While the above studies focused on causal links, some focused on the effect of energy consumption on economic growth and environmental degradation. Using the demographic intensities, urbanisation, production services, industrial production, GDP and energy consumption as economic indicators, Zhang and Lin (2012) investigate the impact of economic indicators on pollution (CO₂) in China between 1995 and 2010 by employing the fixed model and methods of least square generalised linear regression, it was found that GDP, demographic intensities, energy consumption and industrial production have an impact on CO₂ emission. Narayan and Popp (2012) employed global panels to examine 93 countries by regions and found energy granger cause real GDP in Western Europe, Latin America, Asia and the globe therein a positive long run effect were either zero or not. Also, Arouri, Ben Youseef, M'Henni and Rault (2012) in investigating the relationship among CO₂ emissions, energy consumption and real income for 12 Middle East and Northern African (MENA) countries showed significant long run impact of energy consumption on CO₂ emissions.

Jafari, Othman and Nor (2012) employed granger causality in examining the impact of GDP, energy consumption, urbanisation and capital on CO₂ emission from 1971 to 2007, it was found that consumption and capital positively affected CO₂ emission. By employing the method of generalised least square through the period 1990-2011 in the case of countries in the MENA region, Omri, (2013) examined the impact of economic activities on environmental degradation, the result showed the presence of positive and significant impact of GDP and a negative impact of financial development and capital on CO₂ emission. In investigating the causal relationship between urbanisation, energy consumption and CO₂ emission in 30 Chinese provinces and employing a panel

model, Wang *et al.*, (2014) established a positive bi-directional causality among energy consumption, urbanisation and CO₂ emission.

By dwelling on panel analysis, Kais and Sami (2016) found a positive impact of energy on environment in investigating the effect of economic growth and energy use on CO₂ emission to investigate 58 countries. The three regional sub-groups: Europe and North Asian, Latin America and Caribbean region, the Middle Eastern region, North Africa and sub-Sahara region. Per capita GDP exhibited positive and statistically significant impact on global panel for North Asia, Europe and the Middle Eastern region, sub-Saharan Africa and North Africa. The result further indicated the presence of inverted U-shaped curve between CO₂ emission and GDP per capita. Also, Saidi and Hammami (2015) investigated the impact of economic growth and CO₂ emission on energy consumption for 58 countries using Generalised Method of Moments (GMM). The results for three regional panel: Europe and North Asia, Latin America and Caribbean, and sub-Saharan Africa, North Africa and Middle Eastern showed positive significant impact of CO₂ emission on energy consumption while economic growth had positive impact on energy consumption for four panel.

3. Methodology

3.1 Empirical Model and Technique of Analysis

Following existing studies in the literature, this paper examines the effect of energy consumption on environmental degradation. In addition to energy consumption, the study adopts variables of economic growth, square of economic growth, growth of urban population, trade as control variables following extant literature on the subject (Saidi and Hammami, (2015); Kais and Sami, (2016); Akin (2016)). The inclusion of economic growth with its square is to test EKC hypothesis, popularised by Simon Kuznets. This hypothesis states that there exists a non-linear relationship between environmental degradation and economic growth. Similarly, inclusion of urbanisation and trade in the relationship between environmental degradation and energy use have been justified by various studies (Sabori and Salaiman, (2013); Saidi and Hammami, (2015); Kais and Sami, (2016); Akin (2016); Rahman and Rashid (2017)). These studies posit that existence of negative relationship among urbanisation, trade and environmental degradation since

urbanisation exerts negative impact on the environment. Thus, in line with existing studies, the empirical model for the effect of energy use on environmental degradation is specified as follows:

$$GCO_{2t} = \alpha_0 + \alpha_1 GDPC_t + \alpha_2 GDPC_t^2 + \alpha_3 TRADE_t + \alpha_4 GURN_t + \alpha_5 GENERGY + \varepsilon_t \quad (1)$$

where GCO_2 is growth rate of carbon dioxide emissions (measured in metric ton per capita); GURN is the growth rate of environmental degradation; GDPC is the economic growth; $GDPC^2$ is the square of economic growth; GTRADE is the growth rate of trade measured by Exports plus Imports as percent of GDP and ε_t is the error term.

Considering the mixed nature of the stationarity process of the series as shown in Table (3.3), the empirical model specified in equation (1) is estimated within ARDL technique. Thus, ARDL modelling of both long and short run equations are further specified as:

$$\begin{aligned} \Delta GCO_{2t} = & \alpha_0 + \sum_{i=1}^p \alpha_1 \Delta GCO_{2t-i} + \sum_{i=0}^{q_1} \alpha_2 \Delta GDPC_{t-i} + \sum_{i=0}^{q_2} \alpha_3 \Delta GDPC_{t-i}^2 + \sum_{i=0}^{q_3} \alpha_4 \Delta TRADE_{t-i} + \sum_{i=0}^{q_4} \alpha_5 \Delta GURN_{t-i} + \sum_{i=0}^{q_5} \alpha_6 \Delta GENERGY_{t-i} \\ & + \delta_1 GCO_{2t-i} + \delta_2 GDPC_{t-i} + \delta_3 GDPC_{t-i}^2 + \delta_4 TRADE_{t-i} + \delta_5 GURN_{t-i} + \delta_6 GENERGY_{t-i} + \varepsilon_t \quad (2) \end{aligned}$$

The ARDL method employs Bounds test to investigate the cointegration properties of series even when these series have different order of integration process.

3.2 Measurement of Variables and Sources of Data

The variables employed in the studies are majorly measured in growth rates following existing studies in the literature (Sabari and Salaiman, (2013); Akin (2016); Rahman and Rashid, 2017)). These studies argued that using variables in growth rates enables us to account for dynamic properties of the series rather than having series in stock form, thus this work follows this line of thought. The paper adopts secondary data spanning from 1980 to 2017 for the variables of CO₂ emissions, economic growth, trade, urbanisation and energy use. GCO_2 is the growth rate of per capita CO₂ emissions measured in metric tons. Similarly, GDPC is the economic growth while $GDPC^2$ is the squared of GDP. Also, GENERG is the growth rate of per capita energy use, measured as kg of oil

equivalent. Lastly, GURN is the growth rate of urban population while TRADE is the sum of exports and imports of goods measured as a share of GDP. The data are sourced from World Development Indicators, 2017 edition accessed online.

4.0 Empirical Results

Before delving into the empirical interpretations of the analysis, it is paramount to discuss the descriptive statistics of the variables. Nigerian economy records the highest growth rate of 33.74 percent in 2004 while the highest negative growth rate was recorded in 1981. It should be noted that these two periods are characterised by booms and slumps in the world oil markets thus transmitting shocks into the Nigerian economy. This also depicts the mono-economic nature of Nigerian source of revenue. On the average, however, Nigerian economy grew at 3.72 percent. Similarly, the urban population in Nigeria grew at 4.81 percent, this shows that Nigeria urban centres and cities like Lagos, Abuja, Port Harcourt and Kano grow very fast like other developing countries. This can be attributed to uneven development between these cities and the rural areas. It could also be largely explained by the high unemployment and high incidence of poverty in the rural areas of Nigeria (NBS, 2018). The variable displays the least deviation in the model showing that this growth rates have been consistently maintained since 1981. This also can partly be explained by Structural Adjustment Programme (SAP) adopted by the government in the late 1980s.

Table 3.1: Descriptive Statistics

	CO2	GENERG	TRADE	GURB	GDPPC
Mean	0.610189	715.1459	51.90061	4.814126	3.715481
Maximum	0.927773	798.3031	81.81285	5.855931	33.73578
Minimum	0.325376	665.1001	23.60888	4.053817	-13.12788
Std. Dev.	0.183874	36.19637	15.77198	0.587173	7.670147
Observations	35	35	35	35	35

Source: Researchers, 2018

Table (3.1) above provides information on the descriptive statistics which shows that an average Nigerian generates 0.6102 kg of Carbon dioxide emissions into the environment yearly. This is averagely good compared to other countries and regions of the world (25.340 for MENA; 2.173 for Latin

America and Caribbean region and 8.432 for SSA regional average). The standard deviation for the series is also low showing that CO₂ emission has been consistently infused into the natural environment during the period of analysis. Similarly, an average Nigerian use 715.15 kg of energy yearly while trade and services in form of imports and exports of goods accounts for the average of 52 percent of Nigerian GDP over the years. This validates the belief that Nigeria has the biggest economy in Africa which requires high quantity of energy usage and consequently negative effect on the environment if adequate policies are not put in place.

Table 3.2: Correlation Matrix

	SGDP	TRADE	GENERGY	GDP	GCO2	GURB
SGDP	1					
TRADE	-0.06414	1				
GENERGY	0.02820	0.26435	1			
GDPG	0.55354	0.20684	0.05931	1		
GCO2	-0.00358	0.07084	0.35382	0.070506	1	
GURB	0.13550	-0.53193	0.10290	-0.193258	-0.24987	1

Source: Researchers, 2018

Table (3.2) presents the correlation coefficients among the variables in the model. It was shown that the highest correlation coefficient is recorded between economic growth (GDPG) and the square of economic growth (SGDPG) accounting for 55 percent. This is expected since the two variables are very similar being the square of each other. Similarly, there exists a negative relationship between carbon emission and urbanisation. The same negative relationship is reported between economic growth and carbon emission. However, a positive relationship is reported between energy use and carbon emission. This is expected since energy usage is expected to exhibit negative effect on the environment. However, to confirm the results of descriptive statistics and the correlation tests, the econometric model is needed. Overall, since the highest correlation coefficient recorded in the model is not up to 60 percent, this shows that the variables in the model are moderately related. Thus, autocorrelation is not a problem that is expected to arise in the model.

Table 3.3: Unit Root Tests

Augmented Dickey Fuller Method				The Phillips Perron Method			
Variables	Levels	First Difference	Status	Variables	Levels	First Difference	Status
SGDPPC	-5.7338***		I(0)	SGDPPC	-5.7346***		I(0)
TRADE	0.5201	-3.2057*	I(1)	TRADE	-1.5978	-8.3844***	I(1)
GENERGY	-5.1949***		I(0)	GENERGY	-7.4892***		I(0)
GDPPC	-5.1439***		I(0)	GDPPC	-5.1651***		I(0)
GCO2	-5.8836***		I(0)	GCO2	-5.8830***		I(0)
GURB	-2.8564	-7.3878***	I(1)	GURB	-2.0598	-6.7871***	I(1)

Source: Researchers, 2018

Before proceeding to investigating the main model in the study, it is expedient to investigate stationarity properties of the series in order to evade spurious regressions. Table (3.3) presents the results of unit root test employed in the model, using Augmented Dickey Fuller and Phillip Perron tests. As shown in the two tests, the variables of square of economic growth, growth of energy use, economic growth and the growth of CO₂ emission are stationary at levels. This shows that these variables attain long run equilibrium without being difference. However, the variables of trade and the growth of urbanisation attain long run equilibrium after first differencing. Since the variables are of mixed order of I(0) and I(1), this justified the use of ARDL method which is able to address the mixed nature of the series employed in the modelling, hence, its usage in the model.

Table 3.4: Bound Test Cointegration Result. Dependent Variable: CO2 Emission

Test Statistic	Value	K
F-Statistic	8.0915	5
Significant Levels	1(0) Lower Bound	1(1) Upper Bound
10%	2.26	3.35
5%	2.62	3.79
2.5%	2.96	4.18
1%	3.41	4.68

Notes: K is the number of independent variables in the ARDL model.

Source: Researchers, 2018

Following the bounds approach of ARDL for investigating long run relationship, Table (3.4) presents the results of cointegration test in the model. The F-statistic stands at 8.09 while 5 variables are employed as independent variables. Since the F-statistic is higher than both 5 percent and 1 percent upper bounds, it was concluded that there exists a long run relationship among the variables at 1 percent significant level. This means there is long run relationship among the variables of environmental degradation, economic growth, urbanisation, trade and energy use. Thus, energy use has long term effect on environmental degradation. It also means that policies must be set to address energy usage in order to caution its long run impact on the environment even though energy usage seems not to have a considerate effect on the environment presently.

Table 3.5: Short and Long Run Models. Dependent Variables: CO2 Emissions
ARDL Model (1,0,0,0,0)

Panel A: Long Run Result		
Dependent Variables	Coefficients	Std. Error
GDP	0.0012	0.0070
SGDP	-1.21E-05	0.0003
GURB	0.1455*	0.0730
GENERGY	4.1206**	1.8145
TRADE	-0.0036	0.0029
Panel B: Short Run Result		
CONSTANT	0.8405*	0.4136
GCO2(-1)	-1.0083***	0.1780
GDP	0.0012	0.0071
SGDP	-1.22E-05	0.0003
GURB	-0.1467**	0.0677
GENERGY	4.1547**	1.6044
TRADE	0.0036	0.0027
ECM(-1)	-1.0083***	0.1305

Source: Researchers, 2018

Table (3.5) presents the econometric results on the relationship between energy use and environmental degradation. The study employs an ARDL method and the short run and long run results are accounted for in the model. These results are presented simultaneously. In the short run model, the empirical result indicated that only two variables of growth of urban population and growth rate of energy consumption determine environmental degradation in Nigerian economy. This means that as growth of energy consumption and use increases,

it brings about increase in environmental degradation in Nigerian economy in the short run. The square of economic growth also has insignificant negative effect on environmental degradation. Overall, the empirical results do not validate the environmental Kuznets hypothesis in Nigeria. As observed in the empirical results in Table (3.5), there is an insignificant positive relationship between energy consumption and economic growth in the short run. On the other hand, high economic growth indicating, excessive use of energy, has an insignificant negative effect on the environment. Thus, in both long and short runs, the Kuznets hypothesis is not validated in Nigeria.

Regarding the main objective of this study; to examine the effect of energy consumption on environmental degradation, the empirical results report a positive relationship between energy consumption and environmental degradation. This means that as Nigerian economy use more energy, it exerts negative influence on the environment. These results extant findings in literature (Saidi and Hammami, 2015; Kais and Sami, 2016; Akin, 2016; Sabori and Salaiman, 2013); Rahman and Rashid, 2017). This is particularly true considering the fact that a lot of Nigerian cities do not have appropriate policies, both for firms and individual, in place that ensure adequate protection for the environment. On the other hand, some cities like Lagos are coming up with concrete plans to protect the environment. Lastly, the error correction mechanism shows that if there are drifts from the short run, we are sure that this will adjust itself to the long run path at 1 percent significance level.

The result of short run model is further validated by the long run model run. This also shows that only two variables: the growth of urban population and the energy use affect environmental degradation in Nigeria. Although, the variables of economic growth, the square of economic growth and trade meet the *a priori* expectations, they are not significant determinants of environmental degradation in Nigeria.

Table 3.6: Post Estimation Tests

Test	Obs*R-squared / Jarque-Bera	Probability
Normality	27.9449	0.000001
Serial Correlation	0.7492	0.3950
Heteroskedasticity	0.6727	0.6726

Source: Researchers, 2018

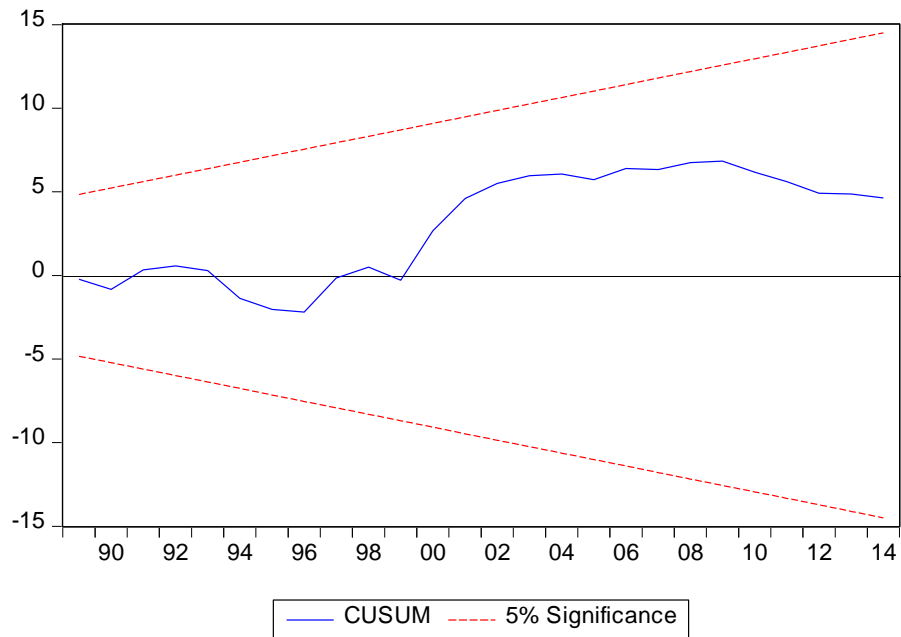


Figure 1: CUSUM test

To check the suitability of the empirical models, four post-estimation tests were used: Normality test; Serial Correlation test; Heteroskedasticity test and stability test which is represented in Table (3.6). The normality test shows that residuals are normally distributed judging by Jarque-Bera statistics and its probability which accept the null hypothesis that errors are normally distributed. The serial correlation test also rejects the null hypothesis. Similarly, regarding the test of heteroskedasticity, the result shows the acceptance of alternative hypothesis, hence, it is concluded that the residual is heteroskedastic. Moreover, the serial correlation test shows that the null hypothesis is upheld thus, conclusions that no serial correlation occurred in the residual. Lastly, as shown in Fig. (1), it is clear that the plots of CUSUM are within the boundaries, thus, confirming stability of short run coefficients.

5.0 Conclusion and Policy Implications

This paper investigates the relationship between energy consumption and environmental degradation in Nigeria between 1980 and 2017. The paper is motivated by recent trends of carbon emissions in Nigeria, like other developing

countries induced by energy use, urbanisation, economic growth, trade and energy consumption and the fact that empirical studies investigating the relationship is scanty in the context of Nigeria. While the empirical results show that only variables of energy consumption and urbanisation have significant effects on environmental degradation, other variables of economic growth, its square and trade, however, are not supported by our findings. Following the empirical results, some policy recommendations emanate from the study. First, since, energy use increases carbon dioxide emission thus environmental degradation, it is recommended that policymakers in Nigerian cities should set in place appropriate policies, for individuals and firms, that protect the environments. While Lagos State is a state that has this kind of policy, it is recommended that other states in the federation should follow suit. Besides this, policy formulation is not enough, its implementation is more important. So, it is recommended that states should follow these policies to the latter to ensure implementations. A good policy recommendation in this perspective is the introduction of Saturday cleaning programme throughout the federation. This will definitely protect the environment. Also, fines and courts discipline should be imposed on individuals and firms that violate these laws while firms, states and local governments that obey these laws should be given national recognitions. A national law is recommended in this perspective. Lastly, the government must educate the populace on how individual actions on the environmental collectively affect the ecosystem. This will go a long way in changing the perspective of people on environmental usage.

The results also showed a negative relationship between excessive use of the environment and economic growth. While Nigerians desire higher growth rates, it is equally advised that policymakers and governments should include environmental considerations in their national programmes. This can be achieved through various channels. First, this should be mainstreamed into the conditions required for new firms. This will enable these firms to pay attention to environmental protection in their activities.

More importantly, since there exists significant positive relationship between environmental degradation and the growth of urbanisation, it is recommended that government should engage in even development across the country in order to discourage urban migration with its consequent effect on cities like Lagos,

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Abuja, Port Harcourt and Kano. If implemented this will reduce the population in urban areas thus reducing the demand for energy use in Nigeria. If these policies are implemented, Nigeria as a country will achieve the Sustainable Development Goals (SDGs) being pursued across the world.

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CHAPTER

29

BUILDING SUSTAINABLE CITIES THROUGH THE INCORPORATION OF URBAN AGRICULTURE IN EMERGING MEGACITIES: A CASE STUDY OF LAGOS

Nkwuka Nnamdi

Abstract

Urbanisation is leading to problems of sustainability related to segregation and growing social tensions, congestion, air pollution, waste, and the large and often inefficient consumption of energy and materials. Although the growth of cities results in complex challenges, it also opens up opportunities. Urban agriculture possess as one of the opportunities in achieving a sustainable Lagos city. The need to further the research discuss aimed at developing sustainable cities by practicing urban agriculture within the Lagos City is not only timely at this period, its practices is equally quintessential in achieving food security. A key approach to achieving this objective is to undertake further structured study into environmentally responsive ways of generating economic prosperity and food security by greening and cropping along the available geographical space in our urban centres and designing our buildings to be able to support urban farming. Practical examples like Pasona urban farms (Tokyo), Eco sustainable office building(Lagos) and balcony farm(Lagos) shown as case studies in this research describes urban Agriculture scenarios wherein Plants of Economic value are grown on available geographical spaces in the neighbourhoods, on roof gardens and along the vertical facades of buildings. This study takes into consideration the fact that greening the city concept in the past dealt with issues of mitigating climate change and sustainability but it can further serve as a solution to food security and economic prosperity.

In this work, the researcher carried out critical document review study and presented practical case studies substantiating this noble idea of urban agriculture

within cities as a sustainable development approach. This work equally presents benefits and challenges to the practice of urban agriculture within the Lagos city.

Keywords: Urban Agriculture, Sustainable City, Food Security, Economic Prosperity.

1.0 Overview

The growing urbanisation in developing countries directly calls into question the future of urban agriculture for enhancing urban food security, alleviating urban poverty, and contributing to cities' resilience to climatic changes (Aubrya, Ramamonjisoab, Dabatc, Rakotoarisoad, Rakotondraibee and Rabeharisoaf, 2011). Nigeria, by virtue of its prominent position as the most populous nation in the region, is in no way facing lesser challenges of reducing dependence on food import through improvement in food self-sufficiency ratio which, in turn, is pivoted on increased domestic food production (Saka, Okoruwa, Oni and Oyekale, 2011). In an increasingly globalised world there has been an increasing desire from many to understand where food comes from and significantly reduce the distance that food travels from producer to consumer (Feagan, 2007). In many countries, rapid urbanisation is accompanied by increasing urban poverty, food insecurity and malnutrition. As a result, in many cities the number of people involved in Urban Agriculture tend to increase with ongoing urbanisation rather than decreasing, as had been previously assumed (Salau and Attah, 2012). According to Aubrya *et al.*, (2011), several cities either have created special agricultural zones, or permit agriculture under other zones. Durban has not designated a specific zone for Urban Agriculture, but permits Urban Agriculture on an individual basis in any zone. Kampala allows Urban Agriculture in almost any zone, while Bangkok allows Urban Agriculture to occur in parks and open spaces. Toronto and Nairobi are examples of cities that have created distinct agricultural zones or market garden zones, while Harare, Greater Accra and Dar es Salaam have both distinct agricultural zones and permit agriculture in almost all other zones.

How does one end hunger, and feed all residents of an urban area sustainably? This is a question critical for our survival. The relationship between food and cities is a long and complex one. The ability to cultivate and develop a reliable supply of food enabled early cultures to diversify and focus on non-agricultural activities leading to the development of towns and urban centres. It is also on

record that we are producing more food than ever before, as global food production increased by about 140% in the second half of the 20th century but almost 850 million people go hungry every day and about a third of what we grow is wasted (Sustainable cities, 2016).

Urban agriculture has become an attractive land use because of its potential to address multiple needs, supplying fresh produce in neighbourhoods with limited access to healthy food while offering opportunities for employment, education, and recreation Taiwo (2014). Urban agriculture within Lagos takes place on private, leased or rented land in peri-urban areas, in backyards, on roof tops, on vacant public lands such as industrial parks, school grounds, roadsides, and other institutions as well as ponds, lakes, and rivers. Some researchers are of the opinion that with the proliferation of techniques such as organoponics, hydroponics, tyre and cage farming, vertical farming techniques, roof top farming, etc., even access to land is no longer a decisive factor to engage in urban farming when the need arises.

There is an emerging focus that reflects a broader international awareness of sustainability across its basic tripartite dimensions: economy, environment and (social) equity – often known as the “three E’s” of sustainability (Wheeler and Beatley, 2000). In the face of the global financial crisis and pressing environmental and climatic threats, green growth has emerged as a new development paradigm capable of achieving economic and environmental objectives simultaneously (Hammer,2011).

Urban agriculture is definitely a complex phenomenon, which involves different discipline and approaches, and as such it is acquiring interest and attention in the field of research and it is considered a strategy for urban regeneration Chiara and Stefano (2016). Urban Agriculture researchers can assist urban farmers by continually taking interest in the practice of Urban Agriculture, describing the kinds of activities they find in communities and cooperating with them in practicing novel ideas that will be beneficial to the environment and the survival of man.

1.1 Study Area

Lagos State is an African megacity which is located in southwestern Nigeria on the West Coast of Africa, within latitudes 6°23' N and 6°41' N and longitudes 2°42' E and 3°42'. Most part of Lagos State has an elevation of less than 15m above sea level making these areas susceptible to flooding. In fact, over 40% of the total area is covered by water and wetlands (Adedeji & Ademiluyi, 2009). The mean rainfall is about 1,532 mm with double peak regimes in July and October, average daily temperature is about 27°C and the vegetation is luxuriant with mangrove and tropical swamp forests (Odumosu, Balogun and Ojo, 1999). Naturally, this climatic condition favours the growth of tropical plants and crops such as cassava, vegetables and maize. Lagos metropolis has lost a greater part of its vegetative cover due to industrialisation and urbanisation.

1.2 Aim and Objectives

The aim of this study was to explore ways through which the incorporation of urban agriculture within emerging cities can contribute to the development of a sustainable city taking Lagos State as a case study. This study endeavoured to find the answers of the following research questions. Answers of these research questions help to achieve the aim of this study.

1. What is the role of urban agriculture in building a sustainable Lagos City?
2. What link exists between urban agriculture and a sustainable city?
3. What urban agriculture scenarios can be used in developing a sustainable Lagos City?
4. What are the main constraints for the practice of urban agriculture within Lagos?

Before conclusion and recommendations was made at the final section, findings and discussions section provided answers to these research questions.

1.3 Methodology

The researcher intends to use qualitative research approach in exploring possible solutions and unveil novel ideas as regards this sustainable Lagos City concept. Qualitative approach attempts at understanding, at making the individual case significant in the context of the theory, it opens up new perspectives on what is known. It "explains, defines, clarifies, elucidates, illuminates," constructs, and discovers (Morse, 2004; Gobo, 2005). Data

collection in this research took the following forms; Qualitative research methodology in the form of researchers observation, archival records, documents reviews, case studies and on site exploration of urban agriculture scenarios within Lagos.

Document review and analysis in this work refers to an approach that is grounded in the local setting, it is reliable, valid, and inexpensive, and it provides insight into what people think and do based on systematic investigation into information that already exists. This information can be collected from varying sources of different time periods (historical data) (Brown, 2013). Case studies often times provide structural foundations on which researches in social science are conducted. The rationale for choosing case study approach in this research is that it often offers new variables and further questioning. Taking advantage of the case studies will provide veritable means of portraying outcomes to the research audience and the external world more practically. The limitation to this approach is that there is a unique character and content in scenarios researched that cannot represent or be used to predict and analyse instances having different contextual and historical characteristics (Brown, 2013). This limitation informed the researchers' decision to capture 3 different case study scenarios.

1.4 Results and Discussion

1.4.1 Urban Agriculture Concept

Urban Agriculture synonymous with urban farming is rapidly growing in many cities in Africa including a leading African Lagos megacity. Although urban stakeholders have paid little attention to the urban agriculture trend over time (Lawal *et al.*, 2012). According to Smit, Ratta and Nasr (1996), urban agriculture has been defined as an industry that produces, processes and markets food and vegetables, largely in response to the daily demand of consumers within a town, city or metropolis, to yield a diversity of crops and livestock. Urban agriculture is often informal but Albert *et al.*, (2010) equally states that urban agriculture is a primary non-basic activity that deals with crop cultivation, livestock production, food processing and their distribution within city limits. This increases the total supply of food available to a city and heightens its overall food security.

Gbadegesin (1995) however defines urban farming as an agricultural vocation where farmers use small available spaces usually in the suburbs of the city to produce a few crops to sustain their livelihoods. Usually urban agriculture takes place on road setbacks, in backyards, on balconies, verges, vacant plots, in gardens, and even on roof tops.

1.4.2 Benefits of Incorporating Urban Agriculture into the Sustainable Lagos City

Cities and citizens of the 21st century can establish a new trend in which they are both producers and consumers. It signals a shift from an earlier imagination in which production and consumption was separated and cities were zoned to segregate places of work from places of residence. This implies in sustainable cities, a shift to more mixed-use, moderate to high density urban fabric and a more sustainable economy and urban metabolism (Aromar, 2016).

A. Food Security Solution

The contemporary form and rapid pace of urbanisation is dependent on a steady and reliable supply of food. Our cities will be able to grow sustainably and diversify only after the problem of food supply is addressed (Aromar, 2016). Our current methods of producing food using largely small scale traditional production in rural areas is unsustainable for the exponentially growing population. This system is costing the planet untold environmental damage through deforestation, intensive fertilizer usage and a year in year out use of the limited land resources resulting in land nutrient depletion. Take for instance the huge impact the menace of Herdsmen will have on food production, currently people are even afraid of investing in agriculture for security concerns.

However, designing our cities and buildings in such a way that they can efficiently enable urban agriculture to a large extent will help in achieving food sufficiency and security for our growing population especially within the urban centres.

B. Climate Change Mitigation Solution

Cities shape and in turn are shaped by their natural environment. They are dense networks of interwoven social, spatial processes that are simultaneously local and global, human and physical, cultural and organic. Extensive glazing of the

facades of our buildings and high rise structures all in the name of beauty and providing window functions emit more of the sunlight rays resulting in increased heat island effects. Hard surfaces such as concrete walls, floors and roofs, road pavements go a long way in aiding the reflection of the sun rays thereby increasing heat island effects. The practice of urban agriculture where in portions of such hard surfaces and glazed facades are utilised for planting edible and commercially viable plants will go a long way in mitigating the climate change effect.

The adoption of a Paris Climate Agreement as the basis for implementing SDG13 to stop the human-induced Climate Change is a good idea. The tree planting campaigns rigorously being pursued is equally good but within the Lagos metropolis and the West African sub region plants with economic and nutritional value in terms of food should be encouraged as this will appeal to the populace much more thereby achieving the economic aspect of sustainability. Greenhouse gas emissions and their concentrations in the atmosphere have led to a mean elevation of global temperatures of about 0.72 degrees Celsius above the pre-industrial average (Paris Climate Plan, 2014). With the adoption of urban agriculture there is hope also because the plants will help in sucking up carbon dioxide within the environment. What are the expected impacts of Climate Change on cities? Increased frequency and intensity of current hazards, drought, flooding, cyclones and hurricanes, storm surge, rainfall variations and increased temperatures. The greening cities concept provides a veritable tool for mitigating climate change largely by helping to reduce the heat island effect. Today, approximately 70% of total global energy-related carbon dioxide gas emissions are associated with what happens in urban areas and cities especially within buildings. Although the growth of cities results in complex challenges, it also opens up opportunities for mitigating this climate change challenge and urban agriculture seems to be one of such opportunities.

C. Ecosystem Conservation Solution

The close relationship between urban settlements and nature or natural resources is as old as settlements themselves. Early cities were located close to rivers and lakes as well as cultivated lands to ensure a regular supply of food and water. Ecosystem conservation within cities and urban regions is not only

important for the natural environment, but also protects critical ecosystem services that provides urban areas with clean air and water, help reduce the impact of urban heat island effects, drainage and flood control, provide rich and diverse sources of food and recreational locations. New Ecosystems can equally be developed and this is part of what this novel idea seeks to achieve. We must go beyond the climate change mitigation stage to the ecosystem enabling stage. We must grow and incorporate mutually responsive ecosystem development into our building. In such a case, sustainability goes beyond consuming so as not to negatively affect the coming generations adversely but preparing and willing a worthy environmental inheritance to the coming generation.

D. National Security and Inequality Solution

Urbanisation is leading to problems of sustainability related to segregation and growing social tensions, congestion, air pollution, waste, and the large and often inefficient consumption of energy and materials. This means that urban centres are key drivers of climate change and global environmental degradation. Within the localised Nigerian context, the clashes between farmers and herdsmen threatening the small scale urban farmers' survival and farming activities, kidnappings and environmental degradation resulting from oil exploration within the Niger Delta community and crimes such as stealing for monetary benefits has become a recurring experience in our society. This situation has increased the level of national insecurity over time. It is expected from the practice of urban agriculture which this research encourages that enabling our building designs and urban centres to cater for urban farming will offer novel ideas to achieve food security, generate economic and employment benefits and by extension tackle the national insecurity menace over time.

E. Economic Prosperity and Job Provision

Economic benefits accruing to this urban agriculture concept include: closeness to market improves in case of sales of farm produce, reduction in quality and reduces spoilage, reduction in food waste in supply chain, reduced food miles and buffer against fuel price shocks and local employment for city dwellers and food processors. Economic Growth helps to reduce unemployment by creating jobs. This is significant because unemployment is a major source of social problems such as crime and alienation. The focus ought to be on preventing the

conditions that draw people into violent or criminal behaviour by providing alternative activities that will engage them positively.

1.4.3 Constraints to Urban Agriculture Practice

Urban agriculture within Lagos is often informal and it mostly refers to the land occupied, the labour market, and the sale of the produce, Axel (2001). Moreover, a great number of opportunities exist to incorporate urban agriculture at every scale but some barriers do exist. The main constraints to the development of urban agriculture in Nigeria according to Egbuna (2008) as documented in Salau *et al.*, (2012) includes: Land both in terms of access and tenure security, prohibitive urban policies and regulations, limited access to productive resources and agricultural inputs, harassment by local/state government tax and environmental authorities, theft of crops grown far from the farmer's households and high cost of providing security on the farms, high production costs coupled with lack of credit facilities because most agricultural based credit are targeted towards rural farmers without paying adequate attention to farmers in the urban areas and finally lack of organisation among urban farmers.

Zoning regulates the use of land in areas for residential, commercial, industrial, agricultural or other land use (Dowall, David and Clark, 1997). According to Table 2 in Adedeji *et al.*, (2009), the majority of the areas used for Urban Agriculture within Lagos are unauthorised plots within or outside the city. These unauthorised farms can be found in many parts of the Lagos metropolis, especially along the many wetland areas that are typical of Lagos. Indeed the practice started to spread autonomously and illegally, as citizens took possession of urban lots for farming and social participation aims. One of the greatest constraints to the widespread adoption of urban agriculture is the limited access to land for those who would like to grow food, and the lack of secure of tenure on that land, particularly where the production functions are competing with other uses (especially real estate, commercial, infrastructural and industrial development) that provide greater profit for the landowner Sarah (2010). The poor nature of power supply is equally challenging as this impeded the practice of novel ideas for irrigation especially during the dry seasons in Lagos.

Many of these barriers, however, might be overcome by focusing research efforts in this direction and by educating the public about the wide range of benefits from urban agricultural systems (Sarah, 2010). In conclusion, having more critical and synthetic reviews of the research and continued balanced reporting would be useful additions to the existing body of knowledge.

1.4.4 Urban Agriculture Case Studies

This novel urban agriculture idea can be practiced by the incorporation of urban farming into the facades and roof tops or available spaces in buildings within the Lagos city area. This approach is highly essential in that since land is scarce within Lagos urban areas and cities house more buildings and multi-storey structures, this vertically spaced city structure resource can be utilised to compensate for the scarce available horizontal lands within the urban centres.

Urban agriculture is emerging as a solution not only to the challenge of mitigating climate change, but also to feeding our cities and revitalising the economies of urban regions. It equally has the potential to provide a solution not only to a growing food crisis, to increased food security and better nutrition, but also help address questions of employment, waste disposal, recycling and the greening of the city.

Case Study One: Pasona Urban Farm, Tokyo, Japan (Completed)

New York firm Kono Designs created the urban farm in 2010, in Pasona Head Quarters. It is a nine storey high building in Tokyo built to allow employees to grow and harvest their own food at work. The 50 year old building was refurbished and the project located in the middle of Tokyo's busy metropolitan area intersection was designed to change the way local people think and what they talk about. The building includes office areas, an auditorium, cafeterias, a rooftop garden and urban farming facilities. Inside the 19,974 square metre office building there are 3995 square metres dedicated to green space that houses over 200 species of plants, fruits, vegetables and rice, flowers and orange trees are planted on small balconies, tomato vines are suspended above conference tables, lemon and passion fruit trees are used as partitions for meeting spaces, salad leaves are grown inside seminar rooms and bean sprouts are grown under benches. Employees working in the building are encouraged to

maintain and harvest the crops and are supported by a team of agricultural specialists.

However, Ducts, pipes and vertical shafts were rerouted to the perimeter of the building to allow for maximum height ceilings and a climate control system is used to monitor humidity, temperature and air flow in the building to ensure it is safe for the employees and suitable for the farm. The balconies also help shade and insulate the interiors while providing fresh air with operable windows, a practical feature not only rare for a mid-rise commercial building but also helps reduce heating and cooling loads of the building during moderate climate. The entire facade is then wrapped with deep grid of fins, creating further depth, volume and orders to the organic green wall.

Lessons Learnt

The designer opined that one way to encourage this concept is to not just tell urban communities about farms and plants, but to actively engage with them through both a visual intervention in their busy lifestyle and educational programmes.



Plate 1: Exterior view of the pasona urban farm

Source: <http://www.konodesigns.com/>, 2018



Plate 2: Conference room located within the building
Source: <http://www.konodesigns.com/>, 2018



Plate 3: Crops planted within the building's interior
Source: <http://www.konodesigns.com/>, 2018



Plate 4: Rice paddy harvesting by employees and workers in the building
Source: <http://www.konodesigns.com/>, 2018

Case Study Two: Eco Sustainable Office Building, Lagos, Nigeria (Proposal)

This proposed Eco Sustainable Office building was designed to sit on a site of 2247Sq m in the Ilupeju Area of Lagos State. It was designed by AZDEC ASC design consultants in the year 2011. Its basic concepts include; a modern tropical green office design, light or deep green parameters, planted facades and vegetated terraces, low embodied energy materials, storm water collection and rain water harvesting, water purification technology, sewage recycling, solar energy use/light wells, passive ventilation technology, high performance building envelope, optimised passive solar technologies, natural ventilation and mixed-mode services, basement parking and green roofs.

Lessons Learnt: The proposed Eco Sustainable Office building was designed to achieve the objectives stated above. Imagine the economic benefits, food supply and employment generation this design would have provided if it was designed to cater for Peri-Urban Agriculture (with proposal for plants of economic value) within Lagos.

Readings in UN-Sustainable Development Goals and the Lagos Region

The pictures in the case study represents a typical green building but in the researchers opinion having economically viable plants utilised could be more appropriate in that it will generate economic benefits, social and health benefits aside the climate change mitigation benefits. This seems to be a more marketable sustainable idea to the populace who always question the rationale for green architecture since it cannot better their current economic nutritional healthy lot but instead plans for the future generation.



Plate 5: Exterior view of the eco sustainable building

Source: <http://www.azdecasc.com/>, 2018



Plate 6: External view with plantings all around the facades of the building
Source: <http://www.azdecasc.com/>, 2018



Plate 7: Picture showing the roof section
Source: <http://www.azdecasc.com/>, 2018



Plate 8: Plantings all around the balconies and roof

Source: <http://www.azdecasc.com/>, 2018

Case Study Two: Residential Balcony Farm, Surulere, Lagos, Nigeria (Experimentation Project)

This pilot study project was sited within a one story building in Surulere, Lagos. This Proposal was experimented on the first floor balcony spaces to underscore the operation and try to understand some of the benefits and challenges involved in practicing urban agriculture using available spaces. Some of the advantages included food and nutrition provision, psychological and exercise when harvesting the vegetables. The major observed challenges included inadequate water supply or irrigation facility to keep the plants growing especially during the dry season. Plants grown includes Okro and “Shoko” vegetables. Plastic containers were recycled and utilised for planting within the balcony.



Plate 9: Bare facade of the building before incorporating urban farm
Source: Researchers field survey, 2017



Plate 10: Vegetables growing on the buildings balcony
Source: Researchers field survey, 2017

Lessons Learnt: The proposed Eco Sustainable Office building was designed to achieve the objectives stated above. Imagine the economic benefits, food supply and employment generation this design would have provided if it was designed to cater for Peri-Urban Agriculture (with proposal for plants of economic value) within Lagos.

1.5 Conclusion and Recommendation

Urban agriculture incorporated into the design of buildings and available geographical spaces will have an impact on the development of a sustainable Lagos city. However, since it has been established from this research that there is a link between food production, economic development and social inclusion, then further research and practicalisation of this greening; the cities approach will provide contextual, measurable and original solution to achieving sustainability within cities. The use of scenarios to establish possible case studies and challenges becomes inevitable.

Based on the findings of the study, the following policy recommendations were made:

1. Government should formulate and implement economically viable land use zoning policies to enhance the practice of urban agriculture within cities.
2. Multidisciplinary research and field participatory practices amongst the various stakeholders involved in urban agriculture should be encouraged.
3. More awareness on the tripartite benefit of urban agriculture in building a sustainable city has to be done by the government, institutions, corporate bodies and individuals.

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CHAPTER

30

AWARENESS ON THE EFFECT OF MARINE DEBRIS ON COASTAL COMMUNITIES: A CASE OF IBEJI LEKKI COMMUNITY IN LAGOS STATE NIGERIA

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& Adegbile, Oyeronke Mojisola**

Abstract

Marine debris especially plastic pollution is a global crisis and a threat to human and water resources. Studies have shown that only nine billion tons of plastic produce are recycled, mostly in the developed economy. However, the effects of this menace are global and most developing countries are yet to harness the economic potential of these plastic wastes especially in the coastal communities. Thus, adopting the concept and principles of Social and Solidarity Economy (SSE) in achieving Sustainable Development Goals (SDGs), this study examines the level of awareness on the effect of plastic pollution on aquatic life, opportunities for income generation through recycling in Lagos State, Nigeria. Owing from the above, the descriptive analysis reveals that 75% of the coastal dwellers have no awareness on the negative effect of marine debris to the livelihood of aquatic life and the health of residents. In addition, approximately 85% are not aware of the opportunity of income generation from collecting these plastics for recycling. Therefore, the study emphasised that awareness is key towards ameliorating the threats of plastic pollution.

Keyword: Marine Debris, Plastic Pollution, Social and Solidarity Economy, Sustainable Development Goals, Recycling
JEL Classification: Q38

1.0 Introduction

Marine debris especially plastic pollution is a major environmental challenge. Globally, attention is focused towards finding a lasting solution to plastic pollution through innovations, advocacy and change of attitude. For instance, at the United Nations Environmental Assembly 2017 in Nairobi, committee of nations signed a memorandum to adopt practices which will help check the menace of plastic pollution in the sea. This agenda falls within the caprices of SDG 14; which is aimed at cleaning the ocean and other water resources of pollutants and marine litters (plastic). Unarguably, the ocean provides source of livelihood for over 3 billion people around the world with a market value estimated at 3 trillion dollars annually from industries such as ecotourism, fishing, food chain and transportation. The above notwithstanding, the negative impact of marine debris categorise into environment, social and economic cost is high and unquantifiable. Also, it is unsightly, dangerous to sea life, hazardous to human health and the coastal ecosystem. According to "Foresight Future of the Sea" Report 2018 as published by the UK Government Office for Science, approximately 70% of marine debris litter is comprised of non-degradable plastics which are projected to increase in threefold between 2015 and 2025.

Presently, plastic pollution ranks the highest contributor of environmental pollutant comparatively to the other pollutants. The environmental damage caused by plastic debris alone is estimated at thirteen billion dollars (US\$13) per year. More so, Africa is not exempted from this global challenge especially the countries along the coast. According to Ocean Atlas (2017), five countries in Africa namely Egypt, Nigeria, South Africa, Algeria and Morocco are among the top twenty countries with the worst plastic waste management system. Extending the searchlight on a global survey shows that over 200,000 metric tons of plastic waste were discharged into the Atlantic Ocean annually (Jambeck *et al.*, 2015). Indeed, Nigeria is world's number nine with the largest share of her plastic waste ending up in the ocean (OCED 2018). Approximately 23,400,000 metric tons of plastic have been imported into Nigeria since 1960 with only 12% of these plastics being recycle after use. As such they end up at landfill and dump sites (Babayemi *et al.*, 2018). In addition, evidence of high plastic usage and mismanaged plastic waste can be seen in landfills, littered streets, blocked drainages, shores of beaches, and clustering along the nation's

lengthy coastlines. Similarly, over 100,000 metric tons of these wastes are from Lagos State alone. (LAWMA 2017, Babayemi *et al.*, 2018).

Drawing from the above, it is clear that the level of domestic waste in Lagos State is alarming especially with regards to the fact that it is a coastal state providing shelter and means of livelihood for a population of approximately 20 million people; and over one-fifth of the population are residing around the coastline and beach communities. Despite the above, poor waste and environmental management system in Lagos State as well as direct dumping of refuse on the street and drainages is an important pathway through which most waste find their way into the ocean. For example, coastline environments are usually a subject of neglect and great abuse which triggers suffering among residents along the marine ecosystem. Conventionally, the coastline is generally referred to as any piece of land next to, bordering or adjoining the sea shores. The extension of the coastal environment also varies immensely depending on the subject and the context within which it is being defined. Often, it simply refers to the narrow linear corridor of shore line separating the continental shelf from the oceanic land mass. At other times, it may be considered to extend both largely inwards towards the continental shelf and outwards, farther away from the shore line towards the terrestrial land mass (Zhang, 2012). For the purposes of evaluating marine pollution sources and its effects on the coastal environment, the latter description is considered more suitable.

Consequently, the coastal environment can be said to transcend the shore line up to the exclusive economic zone seaward and across the estuarine and intertidal zones to the lower reaches of the fresh water tributaries, sandy beaches and sometimes even arid continental land masses, landwards where it shares boundaries with the world Seas and Oceans. Emphatically, the United Nations Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP) estimated that land-based sources are responsible for up to 80% of marine debris and the remainder is due to sea-based activities (Sheavly, 2005). Building on this premise, most studies focus mainly on exposing the negative effects of marine debris as a global menace.

More importantly, the Sustainable Development Goals (SDGs) document strives to propagate as urgent the need to proffer lasting solutions that can tackle

plastic and marine debris at the source before it gets into the ocean. Another variant of such solutions amongst others is the UN Global Partnership on Marine Litter Beach Cleanup and Environmental Advocacy within the city and coastal communities adopting the concept of “Social and Solidarity Economic Approach (SSE)” to achieve United Nations Sustainable Development Goals. More so, the SSE Approach is an innovative means of involving all stakeholders in solving a global challenge of which beach cleanup offer a platform. Here, beach cleanup provides the avenue for public advocacy and education on the need for responsible cleaning, waste disposal and management particularly plastics. Hence, the objective of this study is to examine the level of awareness of Lagosians on marine debris pollution, evaluate their knowledge on the effect of plastic debris on the marine ecosystem and finally, the economic opportunity of plastic recycling as a source of livelihood among the coastal communities in Lagos State with focus on Eleko, Ibeju-lekki.

2.0 Brief Literature

The review of literature has shown that there is a dearth of empirical literature on the environmental implications of plastic pollution. Recent studies show that over 5.25 trillion plastics (macro and micro) live in the ocean (Ericson *et al.*, 2014); and some of these micro plastics find their way into the food chain. Similarly, Hopewell *et al.*, (2015) reported on the danger of micro-plastics since they are products of petroleum and petrochemical substances which are mainly non-degradable. With the single use of plastics, taking 346890 pieces over 500 years to completely breakdown; Lavender, Law & Thompson (2014) are of the view that plastic filtrate the environment with toxic chemicals and gas emission causing further environmental challenges. In addition, UNEP (2014) further looked at the effect of plastic pollution in the environment showing the capital cost at 75billion dollar and a detail of financial cost of marine pollution mostly from greenhouse gas from plastic pollution and single use plastics. Similarly, OCED (2018) reported that Nigeria is the ninth country in the world with poor waste management.

As a result, Babayemi *et al.*, (2018) attempted to calculate the inventory of plastic import into Nigeria and the study showed that 234,400,000 plastics have been imported into the county and only 12% are recycled due to poor waste management policies. Drawing from the available evidence, it is obvious that

most studies have neglected the area of awareness and need to make a living out of plastic debris. Thus, this present study attempts to investigate the level of awareness on the effect of plastic pollution as well as the social and economic benefits associated with recycling plastics.

3.0 Data Collection and Methodology

Every year September, the “Ocean Conservancy” leads an Annual International Coastal Cleanup in over 136 countries including Nigeria. Also, they conduct advocacy and educate the public on the need to tackle marine debris especially plastic waste. In 2016 and 2017, the exercise was held at Eleko beach in the Ibeju-Lekki coastal community of Lagos State. Aside the usual beach cleanup, the study examined the level of information awareness of participant on the effects of plastic debris on sea life and the economic opportunities inherent in recycling. The study relied on a sample size of 140 volunteers which included students, coastal residents, individuals in the corporate world, government representatives and environmental stakeholders. The study adopted structured interviews and focus-group discussions. The collected data were analysed using the simple descriptive analysis. This is because the researches aim at communicating with ease with both the literate and uneducated audience. The photographs present in pictures 1 to 5 provides evidences on the extent of plastic debris along the coastal lines and communities in Ibeju-Lekki where the study was conducted.



Picture 1: Picture above shows the part of the beach view before the cleanup

Readings in UN-Sustainable Development Goals and the Lagos Region



Picture 2: Picture of volunteers at the cleanup



Picture 3: The cleanup exercise, questionnaire and interview process



Picture 4: The weighting of marine debris at the Eleko Beach



Picture 5: Marine debris collected at the end of the beach clean-up.

4.0 Results and Discussions

This section provides results from the field as well as explanations based on the findings from the field.

Table 1: Summary of the Eleko Beach Cleanup Exercise

No of Volunteers	140 people
Kilometers Covered	2 kilometres
Total Items Collected	2931
Weight of Marine Debris	400 kilogrammes

Source: Authors' computation, 2019

Table 1 shows the results on the number participants in the Eleko Beach cleanup exercise. It shows that about 140 volunteers were involved in the cleanup which covered about 2 kilometres along the beach and continental shelves. Here, about 2931 plastic debris weighing 400 kilogrammes were recovered during the exercise.

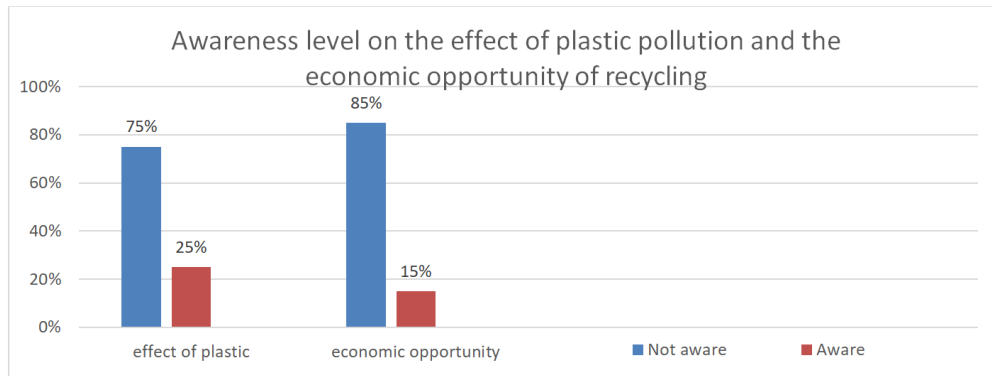


Figure 1: Awareness level of the Negative Effects of Marine Debris on Coastal Communities

Probing Figure 1, it is obvious that 75% of the people in the community have no knowledge of the negative effects of marine debris on the marine ecosystem, public health, tourist and tourism and food chain. This finding is in line with the view of Akanonu and Oreka (2017). Similarly, a study at the university of Minnesota School of Public Health in 2017 opines that 83% tap water sample contain plastic pollutant and excessive pollutants which in turn leads to negative impact on tourism and fishing. Also, only approximately 15% of the respondents are aware of the economic opportunities inherent in turning these debris into income through recycling.

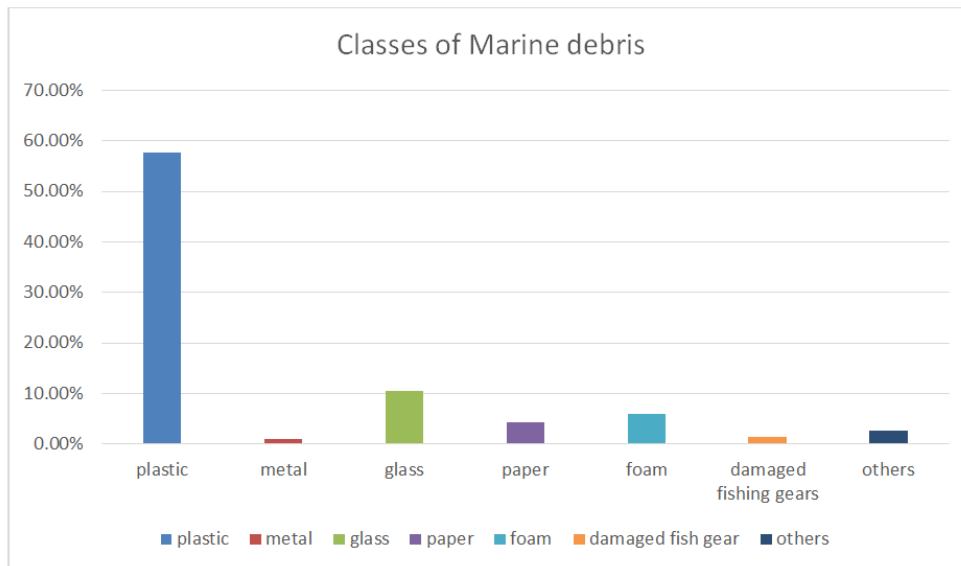


Figure 2: Variations of marine litter

Figure 2 shows that plastic is the highest component found within the collected debris. Here, it makes up about 58% of the total collected debris. This is followed by glass which is about 10%; with metal recording the least at approximately 2%.

The results are discussed in this paper with a view towards generating robust waste management policies and strategies especially for coastal areas in Lagos State. Furthermore, emphasis is made on educating these coastal residents on the economic opportunities inherent in these debris. And as such, these “economic bads” could be converted into “economic goods” as well as lifting poor inhabitants into steady source of income and livelihood. In addition, pictorial evidences were adopted to create awareness on the extent of damage caused by plastic debris within our coastal communities. The paper concluded that awareness on the effects of marine debris in coastal community is generally low even though the effect of marine debris on coastal communities were enormous. Thus, effects of marine debris have enormous impact on our coastal community resources including fisheries, tourism, recreation and transportation; and this effect is totally unavoidable due to global population explosion and industrialisation. However, it was asserted that this problem

could be minimised through greater advocacy on marine debris effects and proper environmental management. Lastly, pragmatic recommendations were therefore put forward in order to increase awareness on solutions to marine debris both in the short and long-term periods. Awareness of perturbation effects through advocacy and change of sanitation attitude, abandoned, lost or other fishing gears should be properly disposed and regular education of the fishermen on the economic and environmental benefits of debris recycling. The authorities should provide waste disposal bins and intensify efforts at sensitising the public on the environmental harm of plastic debris as well as the economic benefits of recycling.

5.0 Conclusion and Policy Formulation

The rate at which coastline residents are flooded during the rainy season is now alarming because of drainage blockage resulting from the indiscriminate dumping of refuse and plastic debris. The above notwithstanding, the presence of these non-biodegradable substance in the ocean and other water bodies has gotten to an apocalyptic level, thereby calling for massive sensitisation of the public especially those residing in or around the coastlines. This action no doubt distorts the ecosystem of their aquatic habitants (flora and fauna), hence reducing their growth pattern and survival. In extreme cases, some of these aquatic animals have gone into extinction thereby causing imbalances in the ecosystem. Since these aquatic animals feed on plastics, these indigestible materials get transferred into the system of humans after consumption. Drawing from the above, new complicated illnesses have evolved including deformities at birth and cancerous growth. Despite the above, the sight of these scenes is usually unfavorable especially to foreigners.

Given the above discourse, the following policy formulation would be very crucial and urgent. They include:

- Aggressive and proactive mass sensitisation on the need to deemphasise on the patronisation of products packaged in plastic and polythene bags.
- Firms who produce these products packaged in plastic and other non-biodegradable substances should be coerced to assist in the environmental cleanup exercises or in extreme cases, fines should be slammed on their firms.
- Environmental clubs should be formed in primary and secondary school where they are sensitised on the harm of plastic waste and taught that

unlawful disposal of these substance could attract fines and jail terms in extreme cases. Also, they could be trained to become environment advocates on the need for a safe and healthy environment.

- Also, environmentally friendly practices should be added to their curriculum. This will increase their knowledge on the environment and the need to secure it.
- Lastly, the government should make laws and regulations as well as rebrand these agencies on swift enforcement on defaulters.

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CHAPTER

31

POLITICAL INSTITUTIONS AND SUSTAINABLE GOVERNANCE IN NIGERIA: A CRITICAL DISCOURSE

Raji, Adesina Abdulfattah

Abstract

Political institutions and the reforms of existing institutions are necessary for democracies to be entrenched in any society. Therefore, the study examines the role of political institutions to sustainable governance in Nigeria. The study establishes that, political institutions are of various types: there are examples of political institutions that are national, local or the ones that work as independent or semi-independent watchdog. These political institutions have diverse authority provided in a document to check, analyse and make critical criticism on politics that are necessary for sustaining governance in Nigeria. In view of this, the study argues that, most of the problems facing the Nigerian Government are due to political failures and not the failures of democracy. The major challenge of the political procedure's stalemate, for instance, is sometimes associated with the culpability of electoral umpire evading statutory conciliations to attain short-term electoral success, which usually results to jeopardise future policy development capable of sustaining democratic governance. Using an analytical model, the study adopts secondary sources of data gathering. It concludes that, a key challenge facing political institutions in Nigeria is how such institutions can have impact and sustain democratic governance. The study recommends that governance needs to be sustained by incorporating appropriate democratic principles, particularly of participation as well as the need to carefully consider the enhancement of democratic legitimacy for future institutions as part of wider democratic system change. This will serve as an effective response to the political challenge in sustainable governance.

Keywords: Democracy, Governance, Political Institution, Nigeria, Sustainability

Introduction

Governance is about objectives, means, and how. The purpose of governance can be good, the means of attaining the objectives may or may not be there, and even when the means are available, they may be bad and the attitudinal disposition towards the implementation may also constitute another problem. In fact, governance is generally considered good when the vision and mission are well articulated by the leadership and well understood by the followership, when it has the attributes of legitimacy when the people are actively involved, and when there is accountability, effectiveness and responsiveness to the needs of the people. Hence, when there is good governance, political institution will be sustainable. Kings; McCommick; Akinsanya¹ all agreed and documented that in 1960, when Nigeria attained political independence from Britain under a democratic parliamentary system, there was high hope as to the nation's ability to lead other African countries in the area of proper democratic governance, considering its size, resources and population.

Amazingly, studies had shown that after 51 years of political independence, the country is yet to imbibe proper democratic ethos, which is the precursor to governance development in a society. One of the main reasons for this state of affair is that election outcomes that are supposed to be a means of enthroning political leaders in a democracy have suffered from the problem of credibility on the part of the citizens. Unarguably, the nature and structure of political activities in Nigeria since attainment of independence in 1960 has created a lacuna which include election malpractices that does not allow people's vote to be reckoned with in Nigeria². The derelictions observed in the electioneering process have created a strong belief in the minds of the people that 'election results are already known before elections are held'. The belief was well captured in the statement of the past president of the Federal Republic of Nigeria, Dr. Goodluck Jonathan when he assured Nigerians just

¹ King, C. M. (1988). *Localism and nation building*. Ibadan: Spectrum Books; McCormick, J. (2004). *Comparative politics in transition*. Australia: Thomson Wadsworth Publishers; Akinsanya, A. A. (2005). The inevitability of instability in Nigeria, in Akinsanya, A. A. & Ayoade, J.A. (eds.). *Readings in Nigerian government and politics*. Ijebu-Ode: Gratia Associates International.

² Asia, G. O. (2000). *Nigeria: In search of balance*. Ibadan: Vantage Publishers Ltd; Ferreira, A. (2009). *The struggle to develop Nigeria*. Abuja: Panaf Publishing Inc.

before the April 2011 General Elections that there was no going back in his administration's commitment to one man, one vote' in Nigeria³.

The 2008 Electoral Reforms Report of Justice Muhammad Uwais revealed that the “perception and mindset of the people that votes at elections do not count in Nigeria's democratic process has resulted in a political apathy in terms of people's non-participation in the electoral process. One of the major reasons attributed to this development is the weakness of the democratic institutions in the country represented in this paper by the electoral organising body in Nigeria -Independent National Electoral Commission (INEC), Legislature, Executive, Judiciary and the Police”. Political institutions are apparatuses for the acceleration of the democratic procedure for the balloting of civic administrators in any self-governing culture. And autonomous societies prosper on nationals' involvement at selecting their representatives at elections conducted at steady intervals as specified by the law. According to Obayori⁴, All system of modern democracies must allow participation. Therefore, democracy without popular contribution of the people could not be referred to as democracy in the real sense of the concept.

The incapability of the political establishments in the country to carry out their constitutionally assigned tasks in the political development in the past has ensued in frequent military overthrow of constituted political influence from civilian and military administrations alike in Nigeria. It is a well-documented fact by political scholars and analysts that seven military coups had rocked and truncated democratic processes in the country between 1966 and 1993. The first coup took place on 15th January 1966, which removed from office the democratically elected government of Alhaji Tafawa Balewa (1960-66), it was eventually headed by General Thomas Aguiyi-Ironsi (1966). The second was on the 29th of July, 1967 that removed General Aguiyi-Ironsi from office and was headed by General Yakubu Gowon (1966-75). The third coup

³ Feyisipo, R. (2010). No going back on ‘one man, one vote,’ says Jonathan, *Business Day* (Lagos). December 23.

⁴ Obayori, F. (2009). Poverty and underdevelopment: Threat to participatory democracy. *The constitution. A Journal of Constitutional Development* 9(3) (September), 17—25.

occurred on the 29th July 1975, General Murtala Mohammed (1975-76)⁵ headed and removed General Gowon from office.

Ikelegbe⁶ further narrated that, “The fourth coup of 13th February, 1976 failed in its operation; however, the then Head of State, General Mohammed was killed and his second-in-command, General Olusegun Obasanjo eventually headed the new military government that emerged (1976-79). The fifth coup of 31st December 1983 that removed Alhaji Usman Shehu Shagari (1979-83), a democratically elected President from office was headed by General Muhammadu Buhari (1984-85). The sixth coup of 26th August, 1985 removed General Buhari from office and was headed by General Ibrahim Badamosi Babangida (1985-93); and the seventh coup of 17th November, 1993 that removed Chief Ernest Shonekan (1993), from office was headed by General Sani Abacha (1993-98), who died in office, and General Abdulsalami Abubakar (1998-99), became the new Head of the Military Government. On the 29th May 1999, General Abubakar's government eventually handed over political power to a democratically elected government under the leadership of Chief Olusegun Obasanjo (1999-2007)”⁷.

The main argument in this study therefore is that political institutions are more likely to sustain progressive system of government, ensuring its development and growth. This can be achieved if political institutions such as INEC, Legislature, Executive, Judiciary arms of government including the Police and other security agencies, are strengthened to carry out their functions properly. Before, during and after the conduct of elections with a view to guaranteeing 'one man, one vote' in choosing capable public office holders. This study also projects for political education and orientation for electorates and political leaders to ensure the real objectives and ethos of democracy is well

⁵ Ikelegbe, A. O. (1988). Post-colonial Nigerian government and politics: First republic and military regimes, in Onokerhoraye, A. G. (ed.). *An introduction to integrated social science for African social studies for advanced students*. Benin City: University of Benin Press.

⁶ Ikelegbe, A. O. (2005). Democracy and democratization in Nigeria, in Ikelegbe, A. O. (ed.). *Politics and government: An introductory and comparative perspective*. Benin City: Un Publishing Ltd.

⁷ Ibid.

disseminated. This will ensure the expected standard of acceptable governance and development.

Concept of Political Institutions and Sustainable Thinking

Political institutions are formally structured organisations with intention to form, administer and implement their individual laws. Sometimes they perform function of mediation during conflict. They also fashion out (governmental) policy on the economy and social systems and otherwise provide representation for the populace. Some of these political institutions were related to influence the law, economy, culture, and society as a whole. Typical political institutions may include political parties, trade unions, and the (legal) courts. This should be noted that Political Institutions' may also be a recognised structure of rules and principles within which the above organisations operate, including such concepts as franchise, accountable representation and transparency. Indeed, political institutions and systems have a direct impact on the business environment and activities of a country. For example, a political system that is straightforward and evolving when it comes to political participation of the people and laser-focused on the well-being of its citizens contributes to positive economic growth in its region.

It is pertinent, at this juncture to know the intellectual substructures that are behind the explosion of sustainability thinking and practice. Studies had shown that “Ecologists have long been concerned with how ecosystems respond to shocks and stresses, and mathematical ecology blossomed through the 1970s and 1980s, with important work on the stability and resilience properties of both model and real biological systems”. As with the novel usage of the conceptualisation of sustainability, these considerations have informed viable vintage and means of management and practices in a range of environments. Sustainability or alternatively resilience was defined as the ability of a structure to rebound from shudders and tensions including off take and mowing to return to steadiness states. These terms were traditional, methodological notions, which focused on a return to a status quo. Such a symmetry view, focused on expectations about the equilibrium of environment, has been dared, however, by both the environmental and societal knowledge, with a more complex non-equilibrium systems view emerging (IQ). Furthermore, with the growing of thought about sustainable

development, a more all-inclusive perception was upheld, where normative, political goals concerning environment, economy, and society were applied. Here, concepts of change, evolution, and pathway have become pertinent, concentrating on advanced orders of transformation towards normatively defined objectives of sustainability and development.

The conditions of dynamic uncertainty propels that before incremental change and adaptive management and learning for sustainability is advocated there must be defined approach before a single state can be achieved. On this, different schools of thoughts have grappled with the concepts with the intention to arrive at useful approaches to sustainable development and growth. Neoclassical economists, for instance, have drawn on the idea of natural capital. In weak versions of sustainability, natural and human-made capital are substitutable, as long as long-term utility and well-being are maintained. However, some other literature documented that “stronger versions argue that stocks of natural capital need to be maintained. Others pointed to the importance of critical natural capital which performs irreplaceable environmental functions, such as providing ecosystem services. But, economists' notions of capitals offered a rather mechanistic, static picture of complex systems, and the idea of natural capital in particular, although widely used and popular, has been heavily criticised”. Ecological economics meanwhile outlined more concrete assertions with dynamic ecological systems, generating such fields as “lifecycle analysis, energy balance analysis, ecological footprint assessment, and alternative national accounting systems, each examining how ecological and economic systems” are constituted. Although offering a more environmentally accustomed method, ecological economics too can resort to mechanistic, closed-loop systems thinking, devoid of adequate consideration to no equilibrium, complexity dynamics and divergent outcomes.

Studies have shown in recent years that earth system scientists have offered the idea of planetary boundaries, arguing that for a safe space for humanity to be sustained, these must not be transgressed (Q, j) in the new epoch of the Anthropocene. Nine boundaries are defined, based on existing biophysical data, and in recent assessments three have been argued to be transgressed, with several more at risk. This has provided a scientific backdrop for work on

natural capital accounting and climate change or biodiversity and ecosystem valuation. Since the Millennium Ecosystem Assessment, a huge amount of work has been undertaken on the valuation of ecosystems, as a basis for market-led responses. These approaches too have been widely critiqued, because they also take too simplistic a view of dynamic ecological systems, due to the problematic assumptions often embedded in simple valuation exercises. Others have taken a different approach, arguing that planetary and social boundaries have to be seen together and in more concretely normative terms. The challenge is then to navigate a safe and just space for humanity between highly dynamic biophysical and social boundaries. Here, the requirement for a basic minimum social floor is identified, suggesting an approach to economic analysis for sustainability that takes basic needs and social justice as central. This requires negotiating particular pathways for sustainability and development, ones that are not amenable to managerial control, and must emerge through debate and political contest, not through the primacy of economic or biophysical science although both are of course needed.

Directionally, a longer tradition of integrative sustainability science has looked at natural hazards, focusing on climate change within regional geographies and linking understandings of both natural and social systems. Recent discussions of the resource nexus connecting food, water, and energy, for example have attempted to link across sectoral sustainability concerns through integrative analysis, although often without taking politics seriously enough. Adopting a more explicitly political perspective, political ecology in its varied forms has long linked resource use with wider political economy analyses, increasingly with a focus on both the politics of people, place, and the materiality of resources, as well as the politics of knowledge. Drawing on wider popular political concerns about the relationships between environment, well-being, and struggles for social justice, political scientists such as Andrew Dobson have delineated political theories that incorporated a green politics perspective. Here, sustainability concerns are put at the centre of a normative understanding of social and political change.

An integrative approach-starting from a complex systems analysis, but examining in particular how systems are framed, and as such understood in

different ways by different people has emerged under the umbrella of the ESRC STEPS Centre's pathways approach. Linking constructivist perspectives from science and technology studies, with material political economy concerns from development studies traditions, the approach emphasises how alternative pathways to sustainability are constructed in different socio-political contexts, examining the distributional and social justice consequences but firmly focuses on the politics of direction, distribution, and diversity in choices concerning sustainability and development, and as such links normative concerns with an analytical approach. Therefore, across these large areas of cross-disciplinary literature, there are multiple versions of sustainability: broad and narrow, strong and weak, dark and light green, technical-economic and political, and more. Some focus solely on environmental change, whereas others take the more inclusive stance of Brundtland.

The Nexus between Political Institutions and Sustainable Governance Studies have shown that there is a nexus between political institutions and sustainable governance in a country⁸. According to Kim⁹, “the conditions for good governance depend on the presence and consolidation of democratic characteristics”. Igbuzor¹⁰ also “sees good governance as entails the respect for and protection of human rights, abiding by the rule of law and running an open and transparent government”. Emphasising the importance of political institutions for development, Zouheir M'Dhaffar posits that “good governance, efficient and effective public administration is necessary conditions to achieve sustainable governance” (cited in Kim¹¹). On his part, Kofi Annan, observes that good governance is vital for the protection of rights

⁸ Igbuzor, O. (2005). *Perspective on democracy and development*. Abuja: Joe-Tolalu and Associates; Kim, P. O. (2005). Toward participatory and transparent governance: Report on the sixth global forum on reinventing government. *Public Administration Review*, 65. (6) (November/December): 646—654; Gbervbie, D. E. (2009). Democracy and the future of the Nigerian state. *Journal of Social Development in Africa*, 24(1), 165—191.

⁹ Kim, P. O. (2005). Toward participatory and transparent governance: Report on the sixth global forum on reinventing government. *Public Administration Review*, 65. (6) (November/December): 646—654.

¹⁰ Igbuzor, Op. cit.

¹¹ Kim, P. O. (2005). Op. cit.

of citizens and 138 EASSRR, vol. XXX, no. 1 (January 2014) the advancement of economic and social development (cited in Kim¹²).

Based on empirical evidence, sustainable governance is yet to be attained in Nigeria because of the trials of good governance. The Federal Government of Nigeria observed recently in its transformation agenda that: “Nigeria's inability to decisively tackle most development challenges such as poverty, unemployment, security and deplorable state of infrastructure has been largely attributed to bad governance in all its ramifications. These include political governance, economic governance, corporate governance and effectiveness of institutions” (Federal Government of Nigeria Transformation Agenda (FGNTA)¹³).

The foregoing clearly shows that sustainable governance and upright political institution are major keys to any nation's pursuit to sustainable development. This is more likely to be achieved through a democratic system where people would be granted unrestricted franchise to freely elect whoever they feel comfortable to administer the constitutional administration without any hindrance. According to Mimiko¹⁴, “Democracy provides a platform for good governance, and promotes systematic stability as long as there is an outlet to legitimately access power by the political contenders through the people's vote at elections”. In this regard, Kim¹⁵, posit that the institutionalisation of participation by all people is a cornerstone of good governance.

Some intellectuals believe that democracy is good given the reason that it has the structure and features that can inaugurate and sustain good governance for development. There are a host of others who went even further to argue that

¹² Ibid.

¹³ Federal Government of Nigeria Transformation Agenda (FGNTA). 2011—2012. *Summary of Federal Government's key priority policies, programmes and projects*. Abuja: National Planning Commission

¹⁴ Mimiko, F. N. O. (2007). Political and constitutional reforms, in Saliu, H. Amali, E. & Olawepo, R. (eds.). *Nigeria's reform programme: Issues and challenges*. Ibadan: Vantage Publishers.

¹⁵ Kim, P. O. (2005). Op.cit.

democracy is meaningless without economic and social rights¹⁶. In this regard, the former Nigerian Federal Minister of Information, Professor Jerry Gana posits that: “You know the mentality of our people. If democracy does not produce clean water, if democracy does not produce good roads, transform agriculture, cultivate industrial development, sanitise society, give us power supply, democracy will lose credibility and they may say, *Na democracy we go chop*” (cited in Ojo¹⁷).

Invariably, even on the part of the people, there is a link between political institution and sustainable governance. However, for democracy to successfully provide a platform for governance and development, political institutions are proposed to be initiated as mechanisms to legally install political leaders through the conduct of elections in a democratic society. McGill¹⁸, sees political institution as an apparatus for action. Styhre¹⁹, argues that institutions are reflections of the socio-political values that surround them. In the same vein, Farmbry and Harper²⁰ see institutions as action-driven entities that have a vital role in reflecting and responding to the environment in which they are situated.

Political Institutions and Sustainable Governance in Nigeria

Democratic institutions such as INEC, Federal and States House of Representative, The Senate, The Presidency, Security Agencies including the

¹⁶ Abiola, A. G. & Olaopa, O. R. (2006). Economic development and democratic sustenance, in Ojo, E.O. *Challenges of sustainable democracy in Nigeria*. Ibadan: John Archers Publishers Ltd., Ojo, E. O. (2006). Imperatives of sustaining democratic values, in Ojo, E. O. (ed.). *Challenges of sustainable democracy in Nigeria*. Ibadan: John Archers Publishers Ltd.

¹⁷ Ojo, E. O. (2006). Imperatives of sustaining democratic values, in Ojo, E. O. (ed.). *Challenges of sustainable democracy in Nigeria*. Ibadan: John Archers Publishers Ltd.

¹⁸ McGill, R. (1995). Institutional development: A review of the concept. *International Journal of Public Sector Management*, 8, (2), 63—80.

¹⁹ Styhre, A. (2001). The nomadic organisation: The post modern organisation of becoming. *Tamara: The Journal of Critical Postmodern Organisational Science*, 1(4) 1—12.

²⁰ Farmbry, K. & R. Harper. (2005). Institutional legitimacy building in a context of transition: The South African Land Claims Court. *Public Administration Review*, 65(6) (November/December): 678—686.

Police are put in place by the Constitution of the Federal Republic of Nigeria to act as mechanisms for the smooth conduct and enthronement of political leaders through periodic elections. However, Abubakar²¹, declared that “these institutions lacked the capacity to perform well due to the prevailing circumstances of the environment in which they are situated - weakened moral threshold and poor ethical values”. On the other hands, Ingraham²² sees capacity as “the ability to marshal and use available resources - people, money, talent, and time - in the best possible way. She argues that capacity is not just about structure and system alone; but it involves creative, committed and talented people who make the system work”. The implication of the above conceptualisation of capacity on the democratic process in Nigeria is that no political institution can be effective in its functions appropriately with the absence of a good institutional structure, system, and committed personnel that possesses high integrity and sound political ethical behaviour.

One of the major challenges that are traceable to the failure of democratic institutions in Nigeria is the lack of capacity that is directly related to the existing political structure, system and operatives of these institutions to achieve set developmental goals. Hence, lack of appropriate ethos by both politicians and the citizens is also a contributing factor that is affecting the success of achieving sustainable democratic governance that can leads to development. In this regard, Omoruyi²³ argues that: “Growth, in addition, for those who want to promote democracy in a society like Nigeria, there should be an understanding that no one is born a democrat and that democratic life is an acquired or learned behaviour”. This means that anti-democratic behaviour can be learned and also unlearn by people.

To corroborate Professor Omoruyi's view on the need for Nigerians to learn democratic behaviour for good governance and development, Kofi Annan posits thus:

²¹ Abubakar, M. (2011). Jega to INEC officials: No more room for misconduct. *The Guardian Newspaper* (Lagos), March 8.

²² Ingraham, P. W. (2005). Performance: Promises to keep and miles to go. *Public Administration Review*, 65, (4) (July/August): 390—395.

²³ Omoruyi, O. (2007). Political education for the political class, in Saliu, H, Amali, E. & Olawepo, R. (eds.). *Nigeria's reform programme: Issues and challenges*. Ibadan: Vantage Publishers.

“No one is born a democrat and no one is born a good citizen, it is only through hard work and education that we learn through the course of our lives to value democratic institutions because they ensure our freedom and safeguard our rights”²⁴.

Notwithstanding, Dudley²⁵ advances the reasons for the failure of democratic institutions in Nigeria. He pointed out that the successful promotion of democratic norms include the phenomenon politicised as tribalism' as the basis for the appointment of leaders into the democratic institutions. The implication of the identified phenomenon is that, people lack the capability to adequately manage these political institutions to achieve the reasons why they were created to exist, which is to achieve maximum performance. There have been speculations that people have been so appointed on the basis of tribalism they seem to be loyal to their tribes rather than to the nation as a whole in the implementation of policies and programmes for democratic sustainability. According to Dudley²⁶, “What has been called tribalism' is seen to be part of the mechanism through which the political elite maintain[s] itself in power and exercises its influence. It is therefore an attribute of elite behaviour that the educated elite became the chief proponents and purveyors of parochialism and particularistic values”.

This paper projects that the failure of some democratic institutions in Nigeria could be explained within the context of the argument of Joseph²⁷ that “Nigerians often seek to device structures that will prevent the materialisation of the state affairs they fear most, namely, that presumed opponents will take a decisive and perhaps ruinous advantage over them. With this kind of mindset, democratic institutions are bound to fail both in structure, content and implementation of the policies and programmes for which they were established in the first instance. Little wonder therefore that democratic

²⁴ Annan, K. (2011). Democratic values and leadership. *Business Day* (Lagos), May 23.

²⁵ Dudley, B. J. (1973). *Instability and political order: Politics and crisis in Nigeria*. Ibadan: University of Ibadan Press.

²⁶ Ibid.

²⁷ Joseph, R. A. (1991). *Democracy and prebendal politics in Nigeria: The rise and fall of the second republic*. Ibadan: Spectrum Books Ltd.

institutions in Nigeria find it difficult to accomplish their goals even from the very beginning”.

Furthermore, Nnadozie²⁸ points out “the challenges militating against the success of democratic institutions in Nigeria to include what he termed ethnic stigma’, which, according to him, has become the hallmark of elections in the county. He argues that a situation whereby ethnic consideration plays prominent role in the appointments of people into the headship of these democratic institutions, the future and survival of democracy and democratic institutions is anybody's guess as they are permanently sitting on a keg of gunpowder waiting to explode any time”. This point to the fact that the successes of the identified democratic institutions as tools for the advancement of political players through intermittent polls are very vital for democracy, good governance and development in any society. The direction of this discourse is that the unavailability of appropriate political institutions could lead to usurping of power from those that are capable while those without political experience and patriotism install themselves into power. This is because there are no structures to build such deals on and will no doubt jeopardise the existence of the rule of law that can accelerate the expected development.

Failures of Government Institutions in Sustainable Governance

Accordingly, the constitution of the Federal Republic of Nigeria recognises and empower INEC as the only political institution that can organise election in Nigeria. This political institution also have the autonomy to determine when election should be held, how many candidates to be allowed to participate in the election, number of political parties to be represented in the election and other protocols attached to the process of election. This no doubt is expected to give Nigerians the unique opportunity to enjoy the benefits derivable from a democratic system. Alas! This has only caused decay and woe to the electioneering process in the country. The electoral umpire has so far contributed to the incessant intercession of the military to seized power

²⁸ Nnadozie, U. (2007). History of elections in Nigeria, in Jega, A. & Ibeanu, O. (eds.). *Elections and the future of democracy in Nigeria*. Nigeria: Nigerian Political Science Association.

through successful and unsuccessful coup d'état. This is however causing retrogression among the electorate and candidates to be elected as leaders. Therefore, the structure of INEC as a political institution in charge of electoral process in Nigeria is made-up of the Chairman, 12 Commissioners at the federal level and 36 Resident Commissioners with each one presiding over a state of the Nigerian Federation of 36 states. Studies have however shown that "One of the major flaws of INEC, which has generated negative feeling about its activities amongst politicians and citizens, is its composition. The 1999 Federal Republic of Nigeria Constitution (FGNC) gave the president of the federation the powers to appoint the chairperson, 12 Commissioners at the federal level and the 36 Resident Commissioners at the state level, although such appointment must be rectified by the senate"²⁹. The danger possessed by this arrangement is that the ruling party could have influence on the selection of the person that would head the institution if the party has majority in the Senate and House of Representative. This influence might have effect on how the subsequent election would be organised, which could favour the objectives of the ruling party.

Adegbamigbe, Aiyetan, Ploch³⁰ write to corroborate the above assertion that, "the case with the ruling People's Democratic Party (PDP) during the approval of the appointment of Professor Morris Iwu as the Chairman of INEC (2005-2010) by the former President Olusegun Obasanjo. This scenario actually played out in the conduct of the 2007 General Elections that was widely acclaimed to have been rigged in favour of the ruling party and acknowledged by the then elected late President Musa Yar'Adua". Also, Ploch³¹ observed that "The conduct of the 2007 General Election was adjudged to be very poor by all standards both from local and international observers including the team

²⁹ Federal Republic of Nigeria (FGN). (1999). *Constitution*. Abuja: Government Press.

³⁰ Adegbamigbe, A. & Utomwen, D. (2007). Biased umpire: Professor Maurice Iwu's bias threatens to mar the April 2007 polls. *The News Magazine* (Lagos), July, 13; Aiyetan, D. (2007). Why the President may lose. *Tell Magazine* (Lagos), December 10; Ploch, L. (2008). Congressional research service for Members and Committee of Congress, Nigeria: Current issues. Updated January 30. Retrieved on 22 June 2008 from website (<http://fpc.state.gov/documents/organizational>).

³¹ Ploch, L. (2008). Congressional research service for Members and Committee of Congress, Nigeria: Current issues. Updated January 30. Retrieved on 22 June 2008 from website (<http://fpc.state.gov/documents/organizational>).

led by the former U.S. Secretary of State Madeline Albright who concluded that in many places, and in a number of ways, the electoral process failed the Nigerian People. The cumulative effect substantially compromised the integrity of the electoral”. On their part, the Economic Community of West African States (ECOWAS) delegation, as contains in Justice Uwais' Report on Electoral Reforms, 2008; also observed that ...irregularities and sporadic violence characterised and challenged the validity of the elections³².

Adegbamigbe & Utomwen³³ further reveal that, “It was feared by the opposition parties that due to Prof. Iwu's biased nature as a former card carrying member of the PDP prior to his appointment and approval by the PDP dominated senate as the chairman of INEC, that there was no way he can successfully supervise the conduct of credible elections in Nigeria”. This paper, based on the discourse of the previous studies is of the view that the constitutional provision givento the appointment of INEC chairperson can easily create prejudice or unfairness against other opposition parties except that the President of the Federation buried sentiment against his political association. It is only in this that INEC as a political institution can conduct a free and fair election that will be all inclusive for both electorates and political parties to the development of the nation. Furthermore, Justice Uwais' Report on Electoral Reforms (2008) points out that “the classification of NEC as a federal executive body in Section 153 of the 1999 Constitution of the Federal Republic of Nigeria brings it under the oversight of the executive arm of government, which makes it improper to conduct free and fair elections”.

In addition, the Justice Uwais' report observed that the funding of INEC through the Executive arm of government renders it vulnerable to manipulation and undue influence by the Executive to the detriment of the opposition during elections. According to Saliu and Lipede³⁴, “for democracy to thrive in Nigeria, the independence of INEC is a desirable requirement. They argue that the agency must not only profess to be independent, its

³² Ibid.

³³ Adegbamigbe, A. & Utomwen, D. (2007). Op. cit.

³⁴ Saliu, H. A. & A. Lipede. (2008). Constraints of democracy in Nigeria, in Saliu, H. A. *et al.* (eds.). *Perspectives on nation-building and development in Nigeria: Political and legal issues*. Lagos: Concept Publications.

transparency must be very clear to all politicians and the citizens to avoid crisis of confidence in its actions before, during and after elections in the country”. “Apart from the above constitutional shortcomings of INEC, there is also the problem of unethical behaviour by members of staff at the conduct of elections. For instance, it has been observed that INEC's staff frustrates the petition process by preventing petitioners' access to crucial documentary evidence or manipulating electoral documents while in their custody to frustrate efforts of petitioners from proving their case beyond all reasonable doubt before the courts”³⁵.

Abubakar³⁶ revealed that “the function of INEC as a democratic institution for the facilitation of the smooth conduct of elections is a basis for the legitimate enthronement of political leaders in Nigeria; its Chairman Professor Atahiru Jega in an address to INEC staff said, “Many of us have not discharged our responsibilities with integrity, honesty and efficiency as required of us”. Abubakar³⁷, also added that the former INEC National Commissioner and Chairman of INEC Electoral Institute, Professor Lai Olurode, said: “Nigeria's moral threshold has been weakened. Though Nigeria is rich in a material sense, it is poor in ethical sense. With such a profile, the prospect of free, fair and credible elections is ominous”. These assertions point to the fact that INEC as a body is lacking in its constitutional right to hold free and fair election in the country, thereby contributing to the nation's inability to exercise and profit from the advantages of democracy, which include good governance and development. To buttress this further, Odey³⁸ brought up a conducted interview with the Resident Electoral Commissioner in charge of Cross-River's State of Nigeria, Barrister Mike Iginini on the role of INEC and conduct of elections:

We know the importance of allowing the votes to count. If the votes continue to count, leaders would be more responsible and responsive

³⁵ Uwais (2008). Report on electoral reforms in Nigeria. *The Constitution: A Journal of Constitutional Development* 9, 3 (September), 50—153.

³⁶ Abubakar, M. (2011). Jega to INEC officials: No more room for misconduct. *The Guardian Newspaper* (Lagos), March 8.

³⁷ Ibid.

³⁸ Odey, D. (2012). The political class is ruining Nigeria's democracy. *The News Magazine* (Lagos), pp. 47—48. February 13.

to the people. They would have respect for the people, and respect for the people is the beginning of responsible leadership. But if and when votes don't count, there would be no respect for anybody...

The ineptitudes of independent political institutions like INEC at conducting free and fair elections in the country may result to many election petitions in Nigeria. This would happen because many candidates of different political parties are not satisfied with the conduct of the election that considered them incapable to win election. There is no way that a person that was defeated unjustifiably would not file a case after election. For instance, as documented by Justice Uwais' Report on Electoral Reforms (2008) that "the total number of election petitions filed was 574 in the 2003 General Elections and 1,475 in the 2007 General Elections, which is far higher a figure than the petitions filed in 2003". Apparently, most of these cases filed by angry political parties against the poor conduct of the Uwais Report further reveals that "For the first time in Nigeria's election history since independence in 1960, the 2007 General Elections witnessed the removal from office of four governorship candidates already declared winners by INEC and in fact sworn into office as democratically elected executive governors of their state. They were removed from office by the law court after assuming office for between 18 and 30 months due to electoral fraud cases established against them by their political opponents".

Adekeye & Ogunjobi; Yusuf,³⁹ observe that, "the governor of Ondo State, Dr. Olusegun Mimiko under the Labour Party (LP), got his mandate back after over 18 months of legal battle with the PDP incumbent governor Dr. Olusegun Agagu; the governor of Ekiti State, Dr. Kayode Fayemi under the Action Congress of Nigeria (ACN), got his mandate from another PDP incumbent governor, Engr. Segun Oni after 25 months of legal battle⁴⁰; the Governor of Edo State, Adams Oshiomole under the ACN, got his mandate to

³⁹ Adekeye, F. & Ogunjobi, A. (2008). Mimiko floors Agagu. *Tell Magazine* (Lagos), August 4; Yusuf, A. (2008). A mandate and the people. *Tell Magazine* (Lagos), August 11.

⁴⁰ Fayemi, K. (2010). Dr. Kayode Fayemi declared Governor of Ekiti at Ilorin Appeals Court on 15th October, 2010. Retrieved on 2 October 2018 from <http://www.nigerianmuse.com>

govern back from another PDP incumbent governor Professor”. Kolawole⁴¹, added that “Osunbor after about 19 months of legal battle at the law court⁴²; and the governor of Osun State, Engr. Rauf Aregbesola under the ACN, also received his mandate back to govern from another PDP incumbent governor Chief Olagunsoye Oyinlola after over 30 months of legal battle at the law court. These instances go to prove the extent of the inability of INEC to conduct free and fair general elections in 2007”.

The implication of the empirical review is that there is no relationship between the functions of INEC as a democratic institution, its democratic practice, good governance and development in any society. Therefore, a constituted nation with autonomous power and a reliable electoral body should be able to organise a good and acceptable, free and fair election in order to experience good governance and bring about development into the society.

The Nigerian National Legislature

The power to make laws by the Legislative arm of government as contained in the 1999 Federal Republic of Nigeria Constitution is vested in the legislature. This is the major factor that allows the legislature to have the obligation to indorse laws both at the federal and state levels for the smooth conduct of elections in Nigeria. According to Okoosi-Simbine⁴³, if Nigeria is to sustain democratic rule, one of the important institutions to pay attention to at all levels of government is the legislature, the organisation through which citizen’ opinion acquires political significance in a democratic government. However, as important as the function of the Legislature in the realisation of the democratic process of a nation, the Nigerian Legislature is yet to enhance democratic practice and hence promote good governance in the country. Instead, the Legislators in Nigeria have dissipated so much energy on securing

⁴¹ Kolawole, Y. (2010). Rauf Aregbesola sworn in, unfolds 6 points agenda. *This Day Newspaper* (Lagos), November 28.

⁴² Ero, A. (2008). The triumph of Adams. *Tell Magazine* (Lagos), November 24; Majirioghene, B. (2008). The challenge ahead. *Tell Magazine* (Lagos), November 24.

⁴³ Okoosi-Simbine, A. 1. (2007). Assessing the role of the legislature in a democracy: A case study of Oyo State House of Assembly. Nigerian Institute of Social and Economic Research. *NISER Monograph Series* 1. Ibadan: NISER Publications.

better conditions of service for their members in cash and kind to the detriment of the people who elected them into office. For instance, the cost of maintaining each Senator for four years is put at approximately NGN3 billion or USD19.35 million and each member of the Nigerian Federal House of Representatives receives NGN 128.4 million or USD828,387 million as annual salary. Their fringe benefits include; wardrobe allowance - 25 per cent of annual basic salary, recess allowance - 10 per cent; accommodation allowance - 200 per cent of basic salary; utilities allowance - 30 per cent; and domestic staff allowance - 75 per cent⁴⁴.

Soleye⁴⁵, documented important reason that made the military to be struck and overthrown by the democratically elected government. He says:

While justifying the military takeover of political power from the democratically elected government of Alhaji Shehu Shagari on 31st December 1983, General Muhammadu Buhari in his maiden address to the nation, among others, said, "...the situation could have been avoided if the legislators were alive to their responsibilities. Instead, they were preoccupied with determining their salary scales, fringe benefits and unnecessary foreign travels..." This statement as cited in the speech of General Buhari above goes to support the argument that the Legislature as a democratic institution in Nigeria failed in its role as facilitator of democratic governance.

To corroborate the ideal presented above, Adekeye & Ogunjobi; Ero; Majirioghene; Yusuf; Kolawole,⁴⁶ project that, "Furthermore, the Nigerian

⁴⁴ Mokwugwo, S. (2011). Need to hold elected representatives accountable to the people. *BusinessDay* (Lagos), May 23

⁴⁵ Soleye, O. (2005). *Democratic sustenance in Nigeria and the challenges of retired generals*. Commemorative Lecture in Honour of Major General O. Popoola (OFR), Professor O.A Ladipo (MON) and Otunba F. Lawal (MON), Recipients of year 2004 Nigerian National Merit Award. Ogbomoso: Osun State of Nigeria

⁴⁶ Adekeye, F. & Ogunjobi, A. (2008). Mimiko floors Agagu. *Tell Magazine* (Lagos), August 4; Ero, A. (2008). The triumph of Adams. *Tell Magazine* (Lagos), November 24; Majirioghene, B. (2008). The challenge ahead. *Tell Magazine* (Lagos), November 24; Yusuf, A. (2008). A mandate and the people. *Tell Magazine* (Lagos), August 11; Kolawole, Y. (2010). Op. cit

Legislature in carrying out their legislative duties, amended Section 285(6) and (17) of the 1999 Federal Constitution of Nigeria in 2010 without foreseeing the future consequence of that particular section. The amended portions have to do with timeframe for election petitions in the country to be disposed-off from indefinite to a maximum period of 180 days by the courts. Many people argued that election petition outcomes should be determined before people are sworn into public offices after elections, but the legislature turned it down, and supports the view that the winner should take the oath of office while the case is handled by the judiciary for not more than 180 days⁴⁷. The implication of this development is that those declared winners by INEC, fraudulently will use state funds to prosecute their cases to the detriment of their accusers and the citizens as was the case in Edo, Ekiti, Ondo and Osun States of Nigeria”.

The Nigerian Executive Arm of Government

The Nigerian Constitution vested on the President of the Federal Republic of Nigeria the power to appoint INEC officials, and the power to provide the required fund for INEC to operate. These provisions have generated crisis of assurance between the ruling political party and the opposition, to the extent that any election won by the party in power is considered null and void; and as a collaboration between the ruling party in government and INEC. However, it further observes that the executive arm of government had actually at one time or the other manipulated election outcomes in Nigeria by the deployment of state agencies like the police and the electoral body to its advantage during elections. Ikelegbe⁴⁸, confirmed the above assertion that, “while advancing reasons for the failure of democratic governance in Nigeria, he argues that the 1983 General Elections, like other elections in the country before it, were characterised by incumbency manipulations of state agencies, announcement of fake results, repression of the opposition and imposition of the ruling party on the nation”.

The above assertion shows that the executive arm of the government failed in its role as facilitator of democratic governance in Nigeria. This suggests that for democracy and democratic governance to flourish in a society, the

⁴⁷ Federal Republic of Nigeria (FGN). (1999). *Constitution*. Abuja: Government Press

⁴⁸ Ikelegbe, A. O. (2005). *Op. cit.*

executive arm of government as a democratic institution must play the role of an unbiased umpire because it is not a formation of a particular political party but of the constitution. Hence, it should be supported by all, including those who may not be in government - opposition for the time being, if sustainable development is to take place in a country.

The Nigerian Judiciary

The 1999 amended Constitution of the Federal Republic of Nigeria created in its Section 6 vested power on the judiciary to enforce law and order. However, the functions of the judiciary in the advancement of democratic governance in Nigeria have confronted serious challenge of crisis of confidence causing some of its judgments and pronouncements to be nullified. This is particularly so in situations whereby the petitions of aggrieved contestants at elections are dismissed against the opposition' based on mere technicality rather than on the substance of the case in question⁴⁹. Against this backdrop, Akpeji⁵⁰, refers to the address of the President of the Nigerian Court of Appeal, Justice Katsina-Alu to the Judges during the swearing-in ceremony of judicial officials who are the current members of Election Petition Tribunals for the 36 states of the Nigerian Federation in March 2011 says that:

“In Nigeria, allegations of corruption have in recent past, placed the role of Election Tribunals in jeopardy, bear in mind that in most cases in this country when Election Petition Tribunals fail in their duties, the consequences have been violence resulting in murder, arson and grievous bodily harm”.

Tsa⁵¹, also cited the comment of the President of the Nigerian Bar Association, Joseph Daudu on the corrupt state of the judiciary on election cases in the country that: “We are no doubt aware that some of our colleagues, including very senior counsel and at times eminent retired judicial officers go about offering their services as consultants, particularly in election cases, for

⁴⁹ Uwais (2008). Report on electoral reforms in Nigeria. *The Constitution: A Journal of Constitutional Development* 9, 3 (September), 50—153.

⁵⁰ Akpei, C. (2011). Katsina-Alu warns corrupt judges, swears in polls tribunals. *Guardian Newspaper* (Lagos), March 22.

⁵¹ Tsa, G. (2012). Supreme Court upholds Okorochoa, Uduaghan's election. *Saturday Sun Newspaper* (Lagos), March 3.

incredible sums of money, so as to act as conduit between their client and the election courts. The end result is to facilitate ready-made justice for persons they are acting for. We must strongly deprecate this practice...the existing rules of professional ethics can be amended to include such areas that will safeguard the dignity of the courts and integrity of the judicial process”.

The Chief Justice of the Nigerian Federation, Justice Dahiru Musdapher also buttress the corrupt state of the Nigerian judiciary, its negative effects on the country and the way forward, as follows:

“Reducing corruption in the justice sector would make it more likely that corrupt individuals in the other sectors would be prosecuted and punished. This would raise the cost of corruption and discount the rewards derivable there from. Thus, taking steps against corruption in the justice system should be a first step in dealing with corruption in society as a whole... We have started implementing a number of reforms... review of methods of appointment and elevation of judicial officials, and removal of unproductive judges from the bench. The purpose of all these initiatives is to set out the judiciary on a path of renewal so as to restore the integrity and dignity of the judiciary to its pristine status”⁵².

Tsa⁵³ further narrates that, “On 3 March 2012, the Nigerian Supreme Court gave judgments in favour of the Imo State Governor Rochas Okorochoa against his challenger Chief Ikedi Ohakim; and the Delta State Governor Emmanuel Uduaghan against his challenger Chief Great Ogboru. The Supreme Court ruled that the two governors were to serve as duly elected. These judgments were given not based on the merit of the case, but based on the fact that 60 days as stipulated by the amended Section 285 (17) of the 1999 Federal Constitution of Nigeria on which an Appeal Court could adjudicate on an electoral petition had elapsed”⁵⁴. In his reaction to the judgment, Chief

⁵² Musdapher, D. (2012). Ethics, integrity, corruption and the rule of law. *Nigerian Compass Newspaper* (Lagos), February 23.

⁵³ Tsa, G. (2012). Op. cit.

⁵⁴ Ibid.

Ohakim said that the verdict of the Supreme Court of Nigeria is judgment without justice”.

The amended Section 285 (6) of the Nigerian Constitution of 1999 that stipulates “180 days (120 days at the Tribunal level and 60 days at the Appeal Court level) for electoral petitions to be handled and disposed-off, made it mandatory that anything done outside this period is regarded as null and void”. Regarding the amended Section 285 (6) and (17) of the Nigerian Constitution of 1999, The Guardian Editorial Opinion⁵⁵ commented that: “Under normal circumstances, 180 days should be enough to fully adjudicate on an election petition. In this wise, the Supreme Court of Nigeria was correct to have frowned against attempts to stretch the period unduly. But the court could have provided an outlet for litigants whose cases are dragged out of their control only to be ordered for retrial. In the circumstance, such persons are being denied fair hearing... There is the need therefore for the judiciary to simplify (secure) public understanding of its working; and more particularly, strengthen the electoral process”.

The previous argument shows that the Nigerian judiciary as a democratic institution has failed to be an expediter of proper democratic process that can lead to the enthronement of legitimate political leaders in the nation's democratic system. This is the result of the inability of the judiciary to be an impartial umpire in some of its judgments and pronouncements. The judiciary has a vital role to play in order to prevent violence, murder, arson and derailment of democracy. This can only happened when the judiciary start playing its role as unbiased umpire during electoral petitions and other related cases. Otherwise, the democratic system will be seriously affected and development will be hindered.

The Nigeria Police Force

The Amended 1999 Constitution of the Federal Republic of Nigeria describes the function of the police as follows: “The Nigerian Police Force is the institution vested with the power to enforce law and order during the period of

⁵⁵ The Guardian Editorial Opinion. (2012). The judiciary and election petitions. *Guardian Newspaper* (Lagos), July 10.

elections in Nigeria. The major functions of the Police at elections include: guaranteeing safety and peace throughout the election process; safeguarding the security of personnel, materials and venues for voter registration; safeguarding the security of the life and property of citizens during voters' registration, political campaign and voting; and ensuring the safety of electoral officers before, during and after elections"⁵⁶. Despite the noble functions embedded on the police during electoral process, several complaints had been attached to the operation of the police by members of the public and politicians that the police force in the country has not been known as agent that can maintain impartiality in dealing with all political parties. Oloruntimehin⁵⁷, argues that the role of the Nigerian Police Force in the 1983 General Elections in Nigeria contributed to the failure of democratic governance in the country. He stated that the Nigerian Police Force that ought to protect the sanctity of electoral process as a means of enthroning genuine political leaders became instrument of oppression against the opposition in favour of the government in power under the leadership of Alhaji Shehu Shagari, (1979-1983).

Justice Uwais' Report on Electoral Reforms (2008) points out that in some instances, "the leadership of the Nigerian Police Force often issue instructions against the opposition by not granting them permits to hold political rallies, encourage policemen on electoral duty to intimidate and harass people on the day of polling. All these have cast a shadow of doubt on the police in its ability to play the roles assigned to them in terms of safety and security of lives and properties before, during and after elections".

The former INEC Chairman, Professor Atahiru Jega when emphasising on the importance of security in the promotion of the democratic process for free and fair elections in any society, pointed out that: "While it is true, as some observers have argued that security around elections only reflect the general security situation in a country, we believe that insecurity heighten at times of major electoral events. Therefore, it becomes necessary to pay particular

⁵⁶ Federal Republic of Nigeria (FGN). (1999). *Constitution*. Abuja: Government Press.

⁵⁷ Oloruntimehin, O. (2005). The Nigeria Police and the 1983 General Elections, in Akinsanya, A. A. & Ayoade, J. A. (eds.). *Readings in Nigerian government and politics*, Ijebu-Ode: Gratia Associates International.

attention to security issues around the electoral process through concerted efforts of not only security agencies, but also the wider public”⁵⁸.

The ideal situation suggests that the Police Force as a mechanism created under democratic institution is structured for the promotion of the democratic system. However, it has turned out to be an instrument of political oppression, leading to the decay of democracy in that society. Therefore, proper democratic ethos is suggested to be adequately enhanced so that the objectives of good governance and development can be achieved when the law enforcement agents assumed the position of a defender to the democratic rights of the people rather than that of the government in power.

Conclusion and Recommendations

The role of political institutions as catalyst for sustaining good governance and development in any nation is so vital. The imminent position occupied by them makes it necessary to be doing continuous reforms in the electoral process in Nigeria. Therefore, to overcome the challenges of democratic institutions like INEC, legislature, executive, judiciary and the police in Nigeria, to boost democratic sustainability, there is the need to make INEC a justly independent body. The character that must reflect both in name and practice through the modification of the appropriate sections as it affects the appointments of key officers that include the Chairperson, National Commissioners and the Resident Commissioners for the 36 States of the Federation. Instead of giving the President of the Federation the sole power to appoint the INEC Chairman, the appointments could be carried out based on merit - proven capability to perform from within the political parties by the National Judicial Council of Nigeria (NJCN), the same body that appoints, promotes and disciplines judges. The projection is that once political parties have representative in INEC, the fight of dominance would be solved easily.

Regarding funding of the political institution, it is suggested that the consolidated account of the Federation should be used to sponsor all the

⁵⁸ Akintola, K. (2010). Jega worries over insecurity, safety of elections material, personnel. *Business Day* (Lagos), December 23.

activities of the institution so that the executive arm of government would not exploit others through the power of incumbency.

The legislature also needs to promote its institutional role by calling for constitutional amendment that will allow everyone including the public and the pressure groups to actively be part of the process from the beginning to the end. This will no doubt create balance and give credence to the outcome of amendment. This improvement would avert a political party in government from using its majority in the national assembly to modify any part of the constitution to promote its agenda rather than the general will of the people. In addition, the executive arm of government could help to embed autonomous standards in the country by ceasing from the practice of using government agencies as a tool of repression to the opposition.

Furthermore, the judiciary must reinvent, be monitored and distinguish itself as the hope of common person in whom everyone can get fair hearings and unbiased judgement. The Nigerian National Judicial Council as headed by the Chief Justice of the Federation could be organising consistent training for the members that will focus on the ethics and best practices of the most referred judicial profession. All the judges and lawyers found guilty or deficient in the ethics of the profession should be sanctioned by severe punishment in order to serve as deterrent to others who might have such intention. This might instill positive performance in their activities and could have progressive effects on the acceleration of democratic governance in Nigeria.

In the same vein, there should be complete and total reorientation for the police. A new way of discharging their responsibility which include protecting and safeguarding lives and properties of the citizens of the Federal Republic of Nigeria and its territory especially during elections when people need to perform their civic right. The role of the police as the law enforcement agent in democracy should be well spelt out for every member of the agency who have assignment to monitor election process or proceedings at the tribunal or court. Therefore, all police officers found to have acted unprofessionally in the process of carrying out their tasks should be severely punished.

In addition, there is necessity to strengthen political education amongst politicians and the citizens. This is because no one is born a democrat. People imbibe democratic norms through training and regular practice of democratic ideals. This could be achieved by setting up an Institute for Democratic Studies to train potential and existing politicians nationwide about the ethos and practice of democratic culture. On the other hand, the National Orientation Agency in collaboration with INEC should launch national advocacy through the mass media- television, radio, newspapers and magazines on the appropriate culture of democratic norms required of them in an ideal democratic setting. These will serve as instrument to propel good governance in the society as the basis for democratic sustainability and societal development.

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CHAPTER

32

MEGA CITIES OF THE FUTURE: CONSTRUCTING LAGOS AS THE SHANGHAI OF AFRICA

Banwo, Adetoro Olaniyi

Abstract

Nigeria and China relationship is not a new phenomenon in the discourse of the humanities, but a new perspective to view this contact is the development pattern of Lagos-Nigeria in relations to one of the biggest and industrial hub of the world, Shanghai-China. Mega cities are characterised by sprawling populations whose increase is dramatic and the consequences are overwhelming. The urban population increase of Lagos in comparison to Shanghai displays multiple phenomenon. While this Shanghai has been able to manage its surge in population, Lagos is yet to have a concrete plan to deal with this upsurge of people coming into this zone. A catastrophic effect of Lagos incapacitation would result in a breakdown of basic infrastructures that evidently produces the development of slums, unsanitary conditions, malnutrition, traffic congestion and air pollution. Lagos and Shanghai have the characteristics of coastal locations, high GDP's, urban agglomerations and global financial centres of their respective countries. Human activities in urban cities contrast with the natural environment due to the fact that there is obvious exploitation of natural resources. Mega cities struggle with pollution as they are highly industrialised and they are attributed as causing discomfort to their residents. High toxic chemicals or biological materials are released into the atmosphere and this translates to social and environmental challenges. This research work intends to examine and investigate how Lagos can develop sustainably in correlation to how it manages shares, obtains and manage its energy and material resources. Furthermore, how can Lagos control its urban sprawl in relationship with its quest to transform?

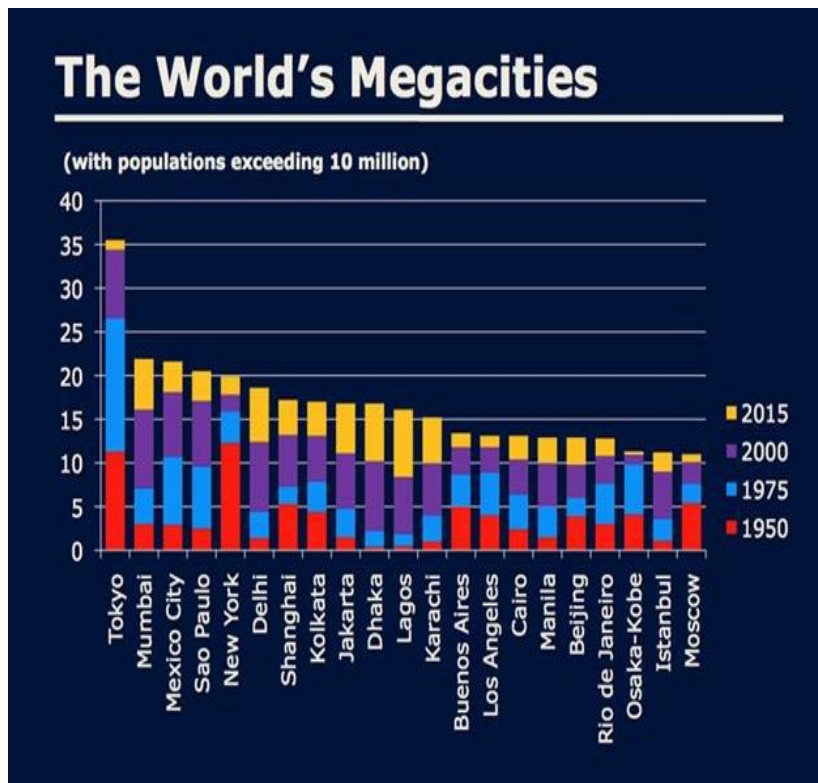
Keywords: Megacities, Pollution, Industrialization, Social and Environmental Challenges

Introduction

Growing sprawl is one of the main trials of this century. Holistic solutions are called for, and not only from town planners, administrative departments, architects and industrial enterprises. Big cities captivate us. It is that enthrallment which has always drawn people to cities. The trend towards urbanisation constantly accelerated in the last century. In 1950 only about 30% of the world's population lived in cities, today the figure stands at around 50%. And by 2030, the United Nations expects more than 60% of people to be living in cities. Around 9% of the world's urban population, about 280 million people currently live in megacities, and this figure is likely to rise to 350 million over the next ten years. In the 1970s the United Nations (UN) coined the term "megacity" to designate urban areas with eight million inhabitants and over. In the 1990s, they raised this threshold to ten million. Today, 22 cities and urban regions have reached this population figure, four of them in industrialised countries. For the booming industries, the number of inhabitants is only one of many criteria that highlighted the significance of metropolitan areas. The most significant standard is their global influence. This is because a large part of commercial, administrative and traditional activities takes place in global economic and trade centres. There is no uniform classification of these "global cities" or "world cities", however in this paper, we define a megacity if it has a population of ten million or more and a high concentration of people, values and infrastructure.

Rome is commonly considered to have been the first "giant city". According to estimates, the city already had between 750,000 and 1.5 million inhabitants by the time of Christ's birth. In 1900, London was the biggest city in the world, with more than six million inhabitants. Fifty years later, New York was the biggest, with a population of 12 million. Today it is Tokyo, with 35 million while Shanghai has a population of 24.18 million as of 2017 and Lagos 21 million as at 2016 (Munich, 2005). With the advance of economic globalisation, these mega cities have gained prominence as export production bases and prospective zones for growth as consumer markets. With the advance of commercial globalisation, these megacities have gained

prominence as export production bases. In recent years, interest has also focused on their potential for growth as consumer markets. The graph below illustrates the world's mega cities and their straggling population which is a key characterisation for this terminology (Oizumi, (2016).



Source: Oizumi, K. (2016). The Changing Face of Mega Cities in Asia's Emerging Economies—Rising Competitiveness and Expanding Markets.

Research Aim

This research objective intends to offer a comparative analysis between two sprawling mega cities of the world. It aims to examine Lagos in relations to Shanghai. These cities contain urban, semi-urban and rural communities, though it is continuously witnessing expansion and development which is changing its distribution rapidly. While Shanghai has been able to transform rapidly into a full-fledged mega city, Lagos is still struggling to explore and

use up its potentials to achieve this feat. This work therefore becomes imperative for policy holders, stake holders and government officials to understand and offer insights into the development pattern of Shanghai in juxtaposition with Lagos.

Methodology

The research methodology implemented in this work delves into qualitative analysis of archival and modern materials. It also scrutinises publications or academic journals that have offered discourses into the sprawling development of Lagos and Shanghai hubs. This research method offers analysis into human behaviour and actions into the growth of mega cities in two distinct places of the world. It also divulges the sociological influences and implications of these cities on human life and the environment. This research technique further examines literature about megacities with an aim to depict how government policies or inadequacies might have one way or the other facilitated such growth. The data sourced in this work palpably justify that megacities have been expedited by their location and their obvious resources.

Literature Review

The United Nations expresses the fact that urban regions have grown to a considerable size. In the world today, there are 23 urban regions with a population that exceeds 10 million. They are designated as megacities, this term conveys the notion that these very large urban regions have specificities that are due to their sheer size (United Nations, 2012). In this respect, megacities are distinct from international cities, which are defined by their position in the upper ranks of a global order of urban centrality (Sassen, 2001). Megacities can be international cities at the same time such as Tokyo or New York but most of them are, in fact, provincial cities from the global point of view (Sassen, 2011). This awareness to describe a specific form of urban human settlement principally according to very large population size can be drawn back to antiquity. The ‘megapolis’ was perceived by the Greeks as spaces that, due to large population size, were the place of particularly intensive political, social and economic activities (Kübler, 2012). To comprehend what is ‘mega’ is always relative to the population progression and pattern of an assumed historic periods. Contemporary megacities of the

world are without precedents. Never in olden times have metropolises been so enormous (Lorrain, 2010). Megacities according to Doug Saunders (2011) are characterised by opportunities and chances for economic growth, human development and political modernisation. The primary criterion for determining what makes a city a megacity is clearly population size: most researchers define megacities as large urban agglomerations delineated in the World Urbanisation Prospects that exceed a population threshold of 10 million (United Nations, 2012).

Megacities can be categorised in three different categories: Developing, Provisional and Developed cities, depending on their stage of financial and communal expansion. Developing megacities tend to be categorised by high growing rates driven by migration and natural growth, much of which occurs in informal settlements not served by the installed base of infrastructure and amenities. Provisional Megacities have repeatedly established mechanisms to efficiently manage dynamic growth, and may be seeing a slowing of annual growth rates. Provisional cities have similar infrastructure encounters as compared with developing cities but are better able to respond monetarily and administratively. Developed Megacities have much slower growth rates than both Developing and Provisional megacities, at around 1% on average. In some of these cities, the populace has deteriorated or is dwindling. Developed megacities also have older population profiles and they exist in countries that are typically around 75% urban. Developed megacities often face the problem of sustaining their infrastructure and adapting it to their changes. On the other hand in developing, provisional megacities face the main challenge of infrastructural delivery which is always much slower than the city's growth. As a consequence the challenges for waste management in developed megacities are completely different than in developing and provisional megacities (GlobeScan, & Hazel, 2008).

Despite these categorisation of megacities, there are some unique trends that scholars have used to posit reasons for the growth in these territories. Firstly, they are characterised by expanding infrastructure costs which is hinged on investment from all sectors of the economy. They source funds from either public or private partnerships for infrastructure improvement and preservation. Secondly, these cities are inclined to have transportation

congestion as a challenge. Expansions in megacities is trending towards the establishment and development of individual centres or sub-cities outside the principal business district. Thirdly, scholars have envisaged that over half the growth in megacities that will spring-up shall come from Asia. Fourthly, twenty urban areas shall consume up 80% of the world's energy and have a greenhouse emission of 80%. Fifthly, megacities are designated to have informal settlements that are highly susceptible to climate change impacts as they are often built on precarious sites in high-risk locations. Sixthly, technological impacts shall be magnificent in these areas as the information they use up would be engineered through high-tech. To illustrate this, information from the Internet can be used for urban planning and city maintenance. Technology shall be used to combat crime and give policy holders information/updates about consumer preferences and shopping needs. Megacities utilise their momentous economic, social and political supremacy over their neighbouring areas. Megacities would create sub megacities which are borne out through the activities of these business centres, they will exhibit both a resilient internal and international spatial-economic relationship. Seventhly, there is a clear dichotomy between the terms "world or global cities" that are based on interconnections and economic function and megacities, which is based on size. It is not just a developed country as opposed to developing country paradigm, but rather the reason the city is growing. For example, the growth in Chinese cities like Shanghai is based on an outward looking global focus, while some African cities like Lagos are driven by internal population changes. This means that analysis of needs of cities will be differentiated not just on geography but also on economic function and "connectedness" with the global economy (Doytsher, *et al.*, 2010).

Likewise, megacities often face some challenges. The managements of large cities are often antagonised with a multitude of key complications, like high urban densities, transportation issues, traffic congestion, energy insufficiency, unplanned growth and lack of elementary services. They are also often confronted with illegal construction both within the city and in the periphery, informal real estate markets, creation of slums, poor natural hazards administration in overpopulated areas, crime, water, soil and air pollution leading to environmental degradation, climate change and poor governance

arrangements. The inexorableness of further population growth is a public dispute they face on a reoccurring basis. Megacities often have administrations with diminutive control over population development which might be a regional or national dilemma.

However, their ability to observe population change meritoriously and respond through effective planning and timely infrastructure development will be their foremost challenges. Informal settlements are problematic issues in many megacities. Migrants move to these places from the countryside and do not have either permanent or temporary access to basic infrastructure and amenities. They are also denied accessed to land which is obviously caused by structural communal inequalities, inheritance constraints, conflicts, land policies and land administration systems that are ineffective and expensive for the end user. Administrators of megacities have to intervene with a range of policies to continuously stimulate economic growth and reduce poverty on a wide basis. Managing slums in these areas is an arduous adventure for city planners and government administrators who must curtail the spread of diseases in these areas, ensure safety of life and provide them with some basic needs (Molina& Molina, 2004).

In conclusion, megacities are characterised by a spiraling population which has a political, economic and social significance to its geographical entity. They are the hubs of information technology and industrial revolutions. They offer a source of livelihood for the locals and they provide taxes for the government to operate effectively. They are resourced endowed areas and they are potential areas for investment.

Lagos as a Mega-city

The number of people living in Nigeria's Lagos, the fastest growing megacity in the world, is expanding at more than 5% a year (Ramaswami, et al., 2016).

Lagos is Nigeria's prevalent city and it lies in the South West of the country on the coast of the Gulf of Guinea close to Nigeria's border with Benin. The city was initially a small fishing village on an island until Portuguese settlers

arrived in the 15th Century. In the early twentieth century it became the capital city of Nigeria until 1991 when the government relocated it to Abuja. The population of Lagos upsurges by approximately 600,000 each year. The Lagos State Government has seen the increase of its inhabitants from 17.5 million to over 21 million in 2016. The fact is that Lagos has the highest population in any African city.

Lagos has an area approximately 3,577 sq. km, out of which 39% are wetlands. It is the most densely inhabited city in sub-Saharan Africa, with an incessant surging population. Additionally, Lagos has been ranked 9th by the recent studies of the United Nations on World Urbanisation Prospects of 28 contemporary and potential megacities in the world with a level of affluence score of 19%. As of 2025, Lagos could accommodate about 24.4 million people which made it the 3rd largest megacity in the world trailing behind Japan's 28.7 million and Bombay's 27.4 million. Lagos megacity encloses urban, semi-urban and rural communities, though rapid expansion and development is changing its distribution rapidly. Urban areas are those with a population greater than 20,000, semi-urban areas are those with a population of between 5000 and 20,000 while rural areas are those communities with a population of less than 5000 (UNFPA, 2007). The urban areas of Lagos State are: Agege, Ajeromi/Ifelodun, Apapa, Ifako/Ijaye, Ikeja, Kosofe, Lagos Island, Lagos Mainland, Mushin, Oshodi/Isolo, Shomolu and Surulere. The semi-urban areas obvious areas of Lagos are: Alimosho, Amuwo Odofin, Ojo, Eti Osa, Ikorodu, Badagry, Epe and Ibeju Lekki.

Lagos State has a GDP currently estimated at \$91bn which initially plummeted from \$131 due to forex fluctuations and is currently Africa's 5th largest economy. Lagos is estimated with a population of 21 million thus regarding it as a heavily populated city in Nigeria and the seventh fastest emergent city in the world. Lagos State which is the nation's economic and financial nerve centre is currently home to 65 per cent of Nigeria's businesses, with a presence of over 2,000 manufacturing companies, 200 financial institutions and the largest collection of small and medium enterprises in Africa. Lagos is also the foremost Information Communications and Telecommunications (ICT) pivot of West Africa and hypothetically, the biggest ICT market in the continent. Lagos is developing a 24-hour economy

in line of its goal to become a world class megacity. Two of the nation's largest seaports -Apapa and Tin-Can Ports are located in Lagos State. Lagos is also Nigeria's aviation hub. The picture below shows Lagos as a megacity.



Picture 1: Lagos as a Megacity (Catherine, 2010)

The area of Lagos has grown in proportion to its population, initially the area of Lagos included the popular Lagos Island. As of the 1960s, the city witnessed expansion northwards into the mainland. Basic infrastructures such as the railway ignited urban growth, likewise the abundance of natural resources such as oil spiraled a population boom. The population explosion of the 1970s was as a result of the oil industry which led to many people migrating from the country side to Lagos to seek a source of livelihood in this industry. The 1980s and 1990s also was an era of continuous urban growth as more industries and resources were discovered.

Lagos, as depicted in the picture above is a contemporary megacity city which has a city centre skyline dominated by modern, high-rise offices, surrounded by miles of sprawling suburbs, linked by busy roads. This skyline ultra-modern city is characterised by unpredictable energy supply which makes the air at the street level polluted due to the use of generators that power the city. Pollution also emanated from the dynamic transportation system of this hub as

motorbikes, yellow minibuses, taxis and rickety cars ply its roads. The significance of Lagos to Nigeria cannot be disputed because it remains the foremost centre of trade, commerce and finance. It has a chunk of the nation's industry with an access to a seaport and an international airport (Catherine, 2010).

Glitches of Lagos as a Megacity

Firstly, the challenges of power generation. Nigeria only satisfies one third of the power demand of Lagos although it consumes 40% of the electricity produced in the country. Power has been a major setback for most industries and residents in this place. Over the years, the government has championed private sector participation in the power industry but has been met with a lot of government bottlenecks and bureaucracies. The state has developed industries to produce transformers that might aid in the generation of energy to its inhabitants.

Secondly, traffic congestion and transportation issues. Lagos roads are characterised by traffic gridlock which is due to inaccessible roads, poor transportation networks, increased number of car owners and rickety vehicles that go on the road. With an expanding population, government seems to be making frantic efforts to build more roads for its inhabitants and repair the old ones, thus, making them free from potholes and ditches. Government has taken some giant strides in the area of public transportation with the construction of the Bus Rapid Transit (BRT) lane to facilitate a smooth carriage with price affordability for its inhabitants. Lagos has witnessed also a construction of a light rail which runs from Badagry to Orile, this project when completed would alleviate a number of transportation issues in Lagos.

Thirdly, waste management. Lagos produces tonnes of waste and their management has become a nightmare for the government. While the stench from the waste is unbearable, the risk hazards it produces in the air should be more worrisome. Furthermore, these waste makes the megacity defaced and redesigned into a growing slum. Government need a proactive measure to convert waste into recyclable products and effectively ensure proper waste disposal mechanism.

Fourthly, drainage problems. City planners have failed to design proper drainages within and outside the city. The imminent effect is that during the rainy season, the city is flooded and this often leads to destruction of properties and loss of human life. Clogged drains also provide a suitable habitation for mosquitoes which are carriers of malaria fever, a deadly disease that is paramount in Lagos. Government therefore needs a continuous hands-on approach into this dilemma by ensuring that drainages are incorporated in the mega plans of Lagos.

Fifthly, security issues. Lagos faces safety problems as the rate of crime is surging systematically. There are often reoccurring reports of kidnap, theft, burglary, pick-pockets and fraud within the state. Miscreants and homeless youths lurk under the bridges and sleep in the bus stations at night. The law enforcement agencies of the state are incapacitated in size and rapid response to such crisis. Most advanced megacities like Shanghai have a formidable law enforcement agency and a central television monitoring system, this enable crimes to be tracked, monitored and resolved easily.

These are among other problems that this paper identifies as issues Lagos needs to face to be able to transform itself into a modern megacity as would be identified in the discourse about Shanghai.

Shanghai as a Mega-city

Shanghai, whose name literally means ‘on the sea’, is located in the middle of China’s East coast, near the mouth of the famous Yangtze River. It is the largest settlement in terms of population in China and in the world, thus this makes it to be characterised as a megacity. It recorded a population of 24.15 million in 2016 to 24.1 million in 2017. The population reduced by 04. % nevertheless it still remains the largest city in China and the fifth in the world. Shanghai has a latitude of 31°18" North and a longitude of 121°31" East. The city has 16 districts, 210 towns and sub districts. Shanghai is divided into 2 areas; Pudong (East of the Huangpu River) and Puxi (West of the river). Pudong is the special economic zone for banks, skyscrapers and new residential compounds. Shanghai is a significant economic centre in China with fields branching into finance, shipping and trade. Since ancient times, Shanghai has been a leading power in economic development in the country,

mostly due to its excellent port. Shanghai's economy has increased by 10% for the past 15 consecutive years, meaning that it has grown steadily and will definitely continue to (Walcott, 2010).

Shanghai is an affluent environment because majority of its population has access to comfortable living spaces and a source of livelihood. Although there are inhabitants who are still unable to find a reliable source of income and a suitable residence in the city. After taxes, Shanghai has the highest disposable income in the country. Recently, it has an average of 40,183 yuan-plus (\$7529 AUD) annual per capita disposable income. Shanghai has a great economy with the world's busiest port, which is used for trading due to its burgeoning industries and manufacturing hubs (Chen, 2009).

Shanghai has a humid subtropical climate; meaning that the typical weather is mild and moist. Average temperatures in Shanghai can reach 25°C in summer months, and it can even come to a scorching maximum of 35°C. Typhoons can occur in the windy months of September and October, and the temperatures may drop to below freezing in winter. Shanghai is home to two major airports; Pudong International Airport and Hongqiao International Airport. Pudong Airport is located on the South coast. The airport accommodates the movement of over 400 aircraft per day, on the average it accounts for approximately 60% of total aircraft movement in Shanghai. It serves about 50 domestic and foreign airlines, and connects with over 70 international/regional destinations. There are 4 main railway stations in Shanghai, with 11 bullet trains alone operating from Hongqiao Railway Station. There are also 11 subway lines in Shanghai, at present. Shanghai is also home to the largest bus system in the world with 1,424 bus lines. Several elevated expressways are in the city centre which is an attempt to lessen traffic pressure on the ground streets. Despite this construction, traffic in and around Shanghai is often heavy and traffic jams are common phenomenon during rush hours. Bicycles and motorcycles are also banned from most major roads, including elevated expressways, to avoid traffic congestion. Shanghai has the world's second highest building, the Shanghai World Financial Centre (Shen, 1997).



Picture 2: Shanghai as a Megacity (Foster & Zhou, 1998)

Glitches of Shanghai as a Mega-City

Shanghai is an efficient city and the city planners have designed a model for most cities to adopt and emulate. The inhabitants of this city have access to an effective plumbing, electricity and regular garbage collection system. Waste are separated, recyclable waste is used while solid waste is taken to rural areas to be used as fertilizer because of its high organic content. Waste is managed competently such that it can be used in brick making or pit filling. Despite this laudable waste management system, there are still some inherent glitches in the designed megacity of Shanghai (Foster & Zhou, 1998).

Firstly, housing problems. There are many housing difficulties within Shanghai due to its increasing over-population. The fact that it is the most populated megacity makes it majorly over-crowded. Overcrowded homes are a common phenomenon as reported in a 1985 survey. The one child policy designed by the government is a temporary solution from the dangers of overpopulation but the massive increase in migrant population means that the government solution is inadequate to deal with this problem. It is predicted that by 2050 the population of Shanghai alone will be over 50 million. This accelerated rate of population growth has caused the standard of living to drop and congestions to rise.

Secondly, traffic congestion. This is becoming the norm to the residents of Shanghai because obviously from the overpopulation and inexperienced drivers that are so popular now in China. Unfortunately there were over 265,000 road accidents recently with over 73,000 deaths. Scholars of town planning and city management have predicted that Shanghai could hold a population of 16 million at the maximum but now it seems to be overstretching its limits.

Thirdly, inadequate infrastructures. Shanghai's megacity is threatened with its spiraling overpopulation. This has further revealed that there are strains on its infrastructure, housing, medical care, social welfare resources, public transportation and education (Shao, 2013).

Fourthly, air pollution. Shanghai depends on the use of coal as one of its sources of energy. Factories discharge many severe chemicals and gases into the atmosphere each day, making it often times hard to breathe. Therefore, many residents of the city wear masks to protect themselves from the hazardous air. The pollution in the air causes many children to have asthma and other respiratory illnesses. A major risk the inhabitants face can also be cancer. Shanghai has the highest cancer rate in all of China and the foremost reason is the inhalation of the polluted air and smoggy air. In 2013, Shanghai witnessed high amounts of pollution. Health agencies recorded that the city had PM2.5 levels being 9 times higher than the World Health Organisation recommended exposure levels. PM2.5 levels aka Particulate Matter levels, is the term for how much matter is in the air. Sometimes they are visible in the form of smoke or dust and sometimes they are invisible to the naked eye. PM2.5 is exceedingly hazardous and exposure to it can cause a variety of problems including, premature death in people with heart or lung diseases, nonfatal heart attacks, decreased lung function, aggravated heartbeat and aggravated asthma (Wang, et al., 2013).

Findings

This research work has discovered some inherent characteristics of megacities as regards Lagos and Shanghai. One is the intrinsic increase and surge in population rates. This paper would offer a comparative analysis of the population of these megacities in the last five years.

Table 1: Comparative Analysis of the Population of Lagos and Shanghai

Year	Lagos	Shanghai
2013	14.9 Million	23.97 Million
2014	17.03 Million	24.03 Million
2015	20.09 Million	24.09 Million
2016	21 Million	24.15 Million
2017	22 Million	24.21 Million

Source: <http://populationof2018.com/lagos-population-2018.html>, Accessed November 18, 2018

One fact to observe here is that while Lagos is increasing sporadically, Shanghai is trying to curb its population growth. Although Shanghai as far back as 2013 had recorded a high growth than Lagos, both cities are grappling with the creation of slums in their mega cities, while Shanghai has been able to curb the expansion of slums, Lagos is yet to develop a concrete action plan on how to deal with its slums.

Second findings from this research work is that both Lagos and Shanghai are coastal cities. On Lagos southern borders lies the Atlantic Ocean while Shanghai on the south coast borders the Yangtze River Delta.

Thirdly, both Lagos and Shanghai are infrastructure based although Shanghai has more modern infrastructures. Modern ones like bullet trains subway lines and good transportation systems. Shanghai boasts of maglevs, rails, trams, buses and trolley buses. Although Lagos is upgrading its system, most of its infrastructures were built as far back as 1970 and are obsolete and outdated. Lagos has an hourly mass transit services that was launched in Lagos on the 26 of April, 2001. The launching of the Ijoko – Iddo and subsequently the Ilaw junction – Apapa mass transit trains complements the public oriented plan of the government towards the railway development. The Lagos mass transit has since commenced running with an average number of 7,000 passengers daily, carrying mainly workers, traders, and student. The Ijoko –

Iddo mass transit has 12 coaches making 16 trips daily. Another stock running between Agbado and Apapa has since been added to the commuter service arrangement (Barredo *et al.*, 2004).

Fourthly, as designated megacities, they are economic and financial centres for their respective countries. Both cities have transformed their economies into manufacturing hubs and industrial centres for the world, however Shanghai has been able to transform into a high technological industrial centre for the world through its innovation practices. They also are characterised by free trade zones. Shanghai has also increased investment in research and key industries to achieve stable, healthy and sustainable development. It grew at an annual rate of 711 percent in the last five years. Shanghai became the first Chinese city to top the GDP of 3 trillion yuan (\$469 billion) (ENGLISH.GOV.CN). Lagos on the other hand also topped the GDP of Nigeria but with a figure of USD 91 billion (lagosstate.gov.ng).

Lastly, power generation is key to the success of these cities functioning. While Shanghai has a stable source of energy generation, Lagos on the other hand is battling with epileptic power supply. The inability of Lagos to generate sustainable energy has multiple effect on its economy and environment. Shanghai is currently moving from non-renewable energy such as coal to renewable energy and environmentally friendly source of power.

Conclusion

The question we should ask ourselves is why do people move to cities? Urbanisation offers prospective economies of scale with respect to water supply, sanitary systems, transportation, energy, education, health care, and many of the other fixtures of industrialisation (World Resources Institute, 1998). These megacities have metamorphosed strategically from rural centres over the years into urban centres that have monumental impacts on their countries. One thing to state is that these places are tactically placed and its closeness to the sea gives it an advantage. They have become financial centres and commercial hubs for world trade. Lagos is yet to realise its full potential as Shanghai and this paper calls for a comprehensive study and approach into the Shanghai development approach. Infrastructural development of Shanghai and technological innovative approach used there has converted the commercial activities of this place. City planners and administrative officers

have to face the realities of the growing trends of the population of Lagos and they have to have a strong blueprint to deal with this. Pollution problems are issues both cities have to deal with to ensure a healthy and vibrant society for their inhabitants. The call for green sources of energy and environmental protection initiatives would go a long way in ensuring that these places continue to be places where people can live comfortably and achieve their dreams.

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PART VI



**EDUCATION, MEDIA AND
COMMUNICATION**

1

CHAPTER

33

EFFECTIVE EDUCATION: A CATALYST FOR SUSTAINABLE DEVELOPMENT IN NIGERIA

Abdullahi Lawal Dangiwa

Abstract

This paper examines the role of effective education as a catalyst for achieving sustainable development in Nigeria. Education is globally recognised to be a key for national development. The world has embarked on the journey to achieving Sustainable Development Goals (SDGs) in the year 2015; that is, after the Millennium Development Goals (MDGs) project has elapsed. These goals involve many ambitions that cannot be met until quality and effective education is equally provided in, especially developing countries of Africa, Nigeria inclusive. Nigeria is doing its best in ensuring the provision of universal basic education. But noting that the educational system of the country is still facing some serious challenges, which can, by implication, become impediments to the successful attainment of the SDGs, the present study suggests further researches to explore the relevance of effective and qualitative education in the SDGs journey and its suitability in Nigeria so that the country can attain its rightful position in the comity of nation.

Keywords: Education, Nigeria, Strategy, Sustainable Development.

Introduction

Education is an integral aspect of human social development as it sets human beings apart from other lower animals, including monkeys. In the annals of

history, rather than wars, education remained the major determinant of the rise of many civilisations because even the strategies of war are borne by the level of knowledge and skills on the art of war. Thus, over the centuries, societies have endeavoured to develop appropriate behaviour patterns through education. In common terms, this effort is called “socialisation” by educationists, sociologists and anthropologists as socialisation and enculturation. By definition, socialisation is the lifelong process by which an individual learns the culture of his/her group and is made to adopt the expected habits approved by the society, in order for him/her become effective and an accepted member of that society.

The socialisation process can either be modern, which is “formal” education or traditional, which is known as “informal” education. In line with the above, Nwogu (2013), observed that all human societies have attempted to magnify the possession of knowledge, understanding and skills among their members in their various and peculiar ways. From the foregoing, it could be argued that broader in education wider sense, is not limited to a classroom or a school only (NCERT, 2014). Few people “wonder that formal education is regarded as a major agency of socialisation in advanced... societies”, and this form of education differ from other forms of socialisation for it involves instruction which is standardised and in a deliberate arrangement (Uever, 2004).

Education is one of the sub-systems of the whole social system, just like economy, religion, politics and family institutions. Together, these subsystems are established to ensure smooth functioning of the society, to attain social stability and progress. Thus, Uever (2004) suggests that education has to take into consideration the historical background, geographical environment, and technological development, innovation and advancement, as well as to consider the extent to which it can generate social change. In economic terms, according to Orji & Job (2013), education is a major investment in human capital development, it plays a critical role in long-term productivity and growth at both micro and macro levels.

In view of the above, education stands a viable position for enhancing sustainable development in any country. This is why “education for sustainable development” was initiated by the UNESCO (United Nations

Educational Scientific and Cultural Organisation), which is a United Nations organ. Education for sustainable development covers a range of international initiatives across formal and informal learning contexts and at all educational levels. Although:

There are many ‘adjectival educations’ which coexist and intersect and overlap: in addition to ESD and environmental education, there is a host of others: peace education, human rights education, inclusive education, citizenship education, and so on, each with a claim to their specificity and some with a claim to an all-embracing universality; each with porous boundaries and many with an ill-defined claim to superiority ... Our thinking and practice are trapped within disciplinary boundaries, organizational silos and, as we have seen, adjectival loyalties. (Mark Richmond, 2009, quoted in Ryan, 2011: 4).

The field of education for sustainable development (ESD) has the strategic aim of reorienting entire educational systems, which in tertiary institutions means the challenging goal of achieving large-scale shifts of curriculum priorities, policy and practice. Ryan (2011) developed a guide on education for sustainable development through an investigation into aspects of the strategic impulse to bring about institution-wide changes to teaching and learning. In view of the relevance of education for sustainable development and present global quest for achieving the Sustainable Development Goals (SDGs), the present paper is designed not to only review the conceptual and theoretical underpinnings of the education for development as a programme as highlighted by Ryan, but also, the study seeks to investigate the practical promise of effective education as a catalyst for achieving the lofty sustainable development dream in Nigeria.

Conceptualisation: Education and Sustainable Development

Education: Etymologically speaking, the word education is derived from the Latin word ‘educare’ meaning ‘to raise’ and ‘to bring up’. According to few others, the word ‘education’ has originated from another Latin term ‘Educere’ which means ‘to lead forth’ or ‘to come out’ (NCERT, 2014: 3). These meanings indicate that education seeks to nourish the good qualities and draw out the best in every individual. Education seeks to develop the innate or the

inner potentialities of humans. Some other educationists believe that the word ‘education’ has been derived from the Latin term ‘educatum’, which means the act of teaching or training (NCERT, 2014: 3).

Based on the complexity of its nature discussed in the introductory remark, the term education can be defined variously. According to Lenshie (2013: 23), education is a “process of imparting knowledge, skill and judgement facts, skills and ideas that have been learned, either formally or informally”. As observed by Lenshie (2013), education forms the basis for human capacity development, both physically and mentally to fit into the society. It is in this context that education is perceived to be the system motivating positive institutional changes and developments geared towards creating the required internal solidarity, cohesion and integration of people to achieve the common good for all in the society. Education may invariably be referred to as bringing about a cultured man (Nwogu, 2013).

Sustainable Development: Sustainable development is the effort of attaining development putting into consideration the present conditions of people as well as not compromising those that come later. Therefore, the concept of sustainable national development remains the modern parameter of measuring development (Boyi, 2013). The concept of sustainability focuses on achieving human well-being and quality of life, pursued through the maintenance, care and equitable use of natural and cultural resources. Terminology around sustainability is by necessity extremely complex and highly contested, with definitions varying according to context and perspective (Ryan, 2011). The UNESCO-led Decade of Education for Sustainable Development initiative (2005-2014) provided a broad framework for the educational dimensions of the review. To encompass the overlaps between ESD and other values-based and sustainability-related educations, the review used three basic conceptual components. Ryan (2011) also mentioned that each exemplar curriculum initiative showed clear evidence of each of the following points of educational orientation:

Global Futures Perspective: as sustainability is ultimately an international concept, each initiative aimed to foster future-oriented perspectives on the

global situation, geared to improving equity of life chances and inter-generational justice worldwide.

Systems Orientation: each initiative recognised the complexities of the relationships within and between human and natural systems, often with strategies and principles to underline the importance of transnational and inter-disciplinary learning for sustainability.

Integrative Educational Ethos: the examples were underpinned by lifelong learning and development principles, addressing the integration of personal and professional life choices and capabilities, as well as the importance of innovation in educational systems.

Theoretical Framework

Functionalism as an approach for understanding the function of education in achieving development in Nigeria, according to this perspective, a society is composed of interrelated parts, each of which serves a function and (ideally) contributes to the overall stability of the society. Societies develop social structures, or institutions, which persist because they play a part in helping society to survive. These institutions include the family, education, government, religion, and the economy. If anything adverse happens to one of these institutions or parts, all other parts are affected and the system no longer functions properly (Kendall, 2011).

According to Kendall (2011), *functionalism* is also known as *structural functionalism* and it is based on the assumption that society is a stable, orderly system. This stable system is characterised by *societal consensus*, whereby the majority of members share a common set of values, beliefs, and behavioural expectations. Haralambos & Heald (2006) stressed that the education is responsible for the transmission of the social values, beliefs and, as the platform for the provision of secondary socialisation it facilitates the inculcation of the behavioural expectation on the younger ones in the society.

Using functionalist approach, education is seen as an integral part of the society which functions to enhance the survival of the larger whole (social system). Indeed, education is the institution that inspires the society to achieve

its developmental potentials in technological, political, economic and cultural terms. All developmental projects owed their roots to effective education. Thus, Ryan (2011) notes that many of the values-based educational movements that inform the project have philosophical origins in the German Bildung tradition and ideas of the 'free university' and liberal education, developed in the work of Herder, Von Humboldt, Hegel and others. Their traditions have interconnected strands, embracing progressive educational thinkers such as John Dewey, legacies from the liberal arts tradition, the focus on holistic learning environments in Montessori education, and recent commentators on 'holistic education' such as John P Miller, etc.

Education for Sustainable Development

Education at all levels and in all its forms constitutes a vital tool for addressing virtually all global problems (Boyi, 2013). In ESD, sustainability ideals serve as an educational impulse and a goal for the improvement of learning processes. ESD also takes the contested nature of sustainability as an opportunity to develop learning activities and to explore debates over the issues at stake. Educators in ESD tend to share broad aims and approaches, but may not agree on exact political, academic or educational priorities. However, critical pedagogies geared to futures and systems thinking, participatory and experiential learning, critical thinking, partnership working and values reflection, are all widely used in ESD (Ryan, 2011). Education is also a weapon in war on poverty (Akoojee & McGrath, 2005).

In exploring the range of initiatives seeking institution-wide curriculum change, the project acknowledged the overlaps between ESD and other thematic agendas, such as inter-disciplinary teaching and learning, graduate employability and citizenship education. Several educational concerns influenced the scope of the review as highlighted by Ryan (2011: 4), viz:

1. Emphasis on the need for critical global perspectives and citizenship education at higher education level.
2. Recognition of the value of inter-disciplinarily to guard against the limitations of specialization.
3. Increased focus on employability to improve graduate skills and capabilities in higher education.

4. Influences from the liberal arts tradition and its ideals for integrated education.

The National Institute of Educational Research, Japan, after a series of meetings with UNESCO, has come out with twelve values, including: Caring for others, Concern for the Welfare of the Society, Concern for National and International Community, Concern for the Environment, Concern for Cultural Heritage, Self-esteem and Self-reliance, Social Responsibility, Spirituality, Peaceful Conflict Resolution, Equality, Justice, Truth and Freedom (NCERT, 2014). Also, the NCERT and Gandhi Peace Foundation jointly sponsored studies on Gandhian Values at school stage. The values Gandhi practised himself, and suggested for the society are: truth (honesty), non-violence (love for mankind, service of humanity, compassion, universal love), freedom (fearlessness), democracy (National Integration, Positive Attitude), *Sarva Dharma Sambhava* (Composite Culture, Reverence for other's beliefs, Communal unity), equity, self-realisation, purity of ends and means (integrity between thought and action), self-discipline, cleanliness (non-consumerism/simplicity, etc.).

All the above set of values have been suggested keeping in mind the sustainability of society, maintaining peace and harmony in the society, and self-realisation and self-upliftment of the individuals. It is believed that society guided by such value systems would be able to face challenges of violence and fanaticism (Agrawal, 2003, cited in NCERT, 2014: 212). As observed by some scholars, what education does is not exactly determined by the educators but by others, made up of individuals and groups with different orientations and perceptions. What is described here is the many societal stakeholders such as politicians, economists, parents, pupils who work to moderate educational activities. This explains why Anderson (1976, as cited Nwogu, 2013) states that the more useful education system becomes to its ambient society, the more manifold become its linkages to other aspects of social change.

The Role of Education in Achieving Sustainable Development in Nigeria

It has long been argued that education enables a person to perform worthwhile activities (Nwogu, 2013). This assertion is valid because, as a social institution, education is established to provide such crucial role. In other words, it has to keep in step with the social institutions in order to fulfill the individual's needs and make a society a cultured or civilised one. Schools are more or less the context within which the formal education is imparted and they are only tools used to pass on to the future generations the attitudes, values, skills and social understanding as well as practice of the societies to which they belong in a systematic and formalised organisation (Nwogu, 2013).

As observed by Uever (2004), a good or an effective education, in its all ramifications, is related to the level of culture, industrial development, rate of urbanisation, political organisation, religious climate, family structures, social stratification and other institutions or the social system. In Nigeria, we have come to recognise the fact that education cannot be divorced from politics. The growing scale of demand for education in Nigeria is an indication of development.

More importantly, educational system is responsible for safeguarding the society and providing for its needs; both present and future needs. Consequently, educational system has the capability for enhancing sustainable development of any nation. Quality of education is related to the levels and growth rates of national product per capita to quantity. In other words, effective education is an important determinant for economic growth of a nation and if Nigeria takes it serious, it serve as a catalysts for not only the economic progress but also political stability, social justice, national security, cultural development and unity despite Nigeria's diversity.

Conclusion

The main thrust of the paper is to examine the role of education in achieving sustainable development in Nigeria not just education but that has to do with the quality and effective in enhancing the programme of the SDGs and also making it to have an appropriate effect on the life of the citizenry. In conclusion, education is globally recognised to be a key for national development. The world has embarked on the journey to achieving

Sustainable Development Goals (SDGs) in the year 2015; that is, after the Millennium Development Goals (MDGs) project has elapsed. These goals involve many ambitions that cannot be met until quality and effective education is equally provided in, especially developing countries of Africa, Nigeria inclusive. Nigeria is trying its best in ensuring the provision of Universal Basic Education (UBE). But noting that the educational system of the country is still facing some challenges, which can, by implication, become impediments to the successful attainment of the SDGs, the present study suggests further in order to explore the relevance of effective education in the SDGs journey and its suitability in Nigeria.

Recommendation

1. There is a need for government to provide an enabling and conducive atmosphere for quality and effective education to be achieved for sustainable development in the country; this is because education is the building block of each and every society.
2. There should be proper utilisation of funds that are channelled to the educational sector; this is because education needs to be allocated with sufficient funds for quality education to be achieved in the Sustainable Development Goals, without appropriate funding of the educational institutions there would be a very big gap that needs to be filled and it is only through proper funding that the quality of education can be achieved which is going to be viable that can provide effective education..
3. Wealthy individuals should also try as much as possible to assist the government in terms of providing adequate funds for the educational sectors as this will help in providing quality education, this is because government alone cannot do it without others.
4. Non-Governmental Organisations should ensure the proper channelling of the goal for “education for all”. The NGOs should make sure that all that is allocated to education should be provided so that all necessary materials that are in dear need for a better, quality and effective education can be attained.
5. Enlightenment that is geared towards making the general populace to understand the need of effective education and enhancement of a

- conducive atmosphere for learning should be campaigned to the public so that they can be able to know the advantage of effective education.
6. Government should try as a matter of urgency to provide a conducive environment for learning in each and every nook and cranny of the country so that the schools can be secured and safe for learning because before education can be effective the students needs to be safe from any harm, threat and danger. There should be enough security to secure the schools from hoodlums, kidnappers, bandits, Boko Haram members etc. Likewise the issue that rock the Chibok school girls, Dapchi school girls, Kankara school boys and many more of this act of criminality which needs to be checkmate and putting measures and strategies to prevent it occurrences in the country.
 7. Teacher's welfare and salary should be of paramount priority by the relevant agencies for effective teaching because if the teachers are not well taking care of, they would not have the energy and motivation to teach efficiently and effectively. There is also the need for training and retraining of teachers at all level of education from Nursery to tertiary institutions to prevent redundancy of teachers by organising seminars, workshops, conferences etc. this will make them to be active and also have passion for teaching effectively.

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CHAPTER

34

MAKOKO RESIDENTS' KNOWLEDGE AND PERCEPTION OF THE SUSTAINABLE DEVELOPMENT GOALS (SDGs)

Ibobor S.O. and S. Busari-Akinbode S.

Abstract

This paper discusses Makoko residents' knowledge and perception of the Sustainable Development Goals (SDGs). It seeks to find out how much the residents of Makoko know about the United Nations Sustainable Development Goals (SDGs) and their perception on the goals related to poverty reduction and inequality. The paper also discusses how community development can contribute to achieving the Sustainable Development Goals in Nigeria. This study adopted the cross-sectional survey method of data collection. The accidental non-probability sampling technique was used in selecting 384 respondents (Male = 124, Female = 260). The findings show that the level of knowledge about the Sustainable Development Goals is poor and their perception on the reduction of poverty and inequality suggest that both issues are on the increase and the goals related to them might not be achieved in Nigeria by 2030. This paper recommends that for poverty and inequality to become history in Nigeria and for the relevant Sustainable Development Goals to be achieved, the Federal, State and Local Governments should pay adequate attention to community development because without community development, there will be no sustainable development.

Keywords: Sustainable Development, Community Development, Perception, Inequality, Poverty and Development

Introduction

This paper discusses Makoko residents' knowledge and perception of the Sustainable Development Goals (SDGs). It seeks to find out how much the residents of Makoko know about the United Nations Sustainable Development Goals (SDGs) and their perception on the goals related to poverty reduction and inequality. The paper also discusses how community development can contribute to achieving the Sustainable Development Goals in Nigeria. This study adopted the cross-sectional survey method of data collection.

Makoko Community

Makoko is a community located in Yaba Local Government Area of Lagos. It is estimated that the population of Makoko is about 100,000. Fishing and trading is the major occupation of residents of Makoko. The community is often referred to as one of the slum communities in Lagos State.

Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs) is the United Nations universal set of goals, targets and indicators designed to replace the Millennium Development Goals (MDGs) (2000 – 2015) as a better option to make the world a better place by ending poverty in all its forms everywhere, fighting against inequality and injustice as well as protecting the environment by 2030 (United Nations, 2014). In September, 2000, the United Nations officially adopted the SDGs at a UN Summit in New York in September and it became operational in January, 2016. The United Nations member states are expected to align their developmental policies with the SDGs between 2016 and 2030 (United Nations, 2015).

The MDGs were eight: Eradication of poverty; achieving universal primary education; promoting gender equality and empowering women; reducing child mortality; improving maternal health; combating HIV/AIDS, Malaria and other diseases; ensuring environmental sustainability and developing a global partnership for development (United Nations, 2008). Nigeria made progress towards achieving the MDGs but lagged behind especially in the eradication of poverty and hunger. Although several programmes were put in place to address the problems of poverty in Nigeria, the number of persons living below the poverty line increased during the period 2000 to 2015 (Ibabor, 2018). The

present level of poverty in Nigeria has several implications. It is one of the major factors associated with youth violence, insecurity problems in Nigeria, human trafficking, illegal and forced migration. It increases the burden of ill-health, physical pain and suffering. It negatively affects learning, leads to poor academic performance and consequent school dropout. In addition, it weakens human capital and compromises entrepreneurial and productive efforts (Grimes, 2000).

Similarly, at the global level, by the end of 2015, many nations had several success stories associated with the implementation of the MDGs, but there were still about 1.2 billion persons living below the poverty line (United Nations, 2015; 2016; 2017).

The SDGs have 17 goals but this study focused on the following: SDGs 1 and 5 with their corresponding targets (United Nations Statistical Commission, 2016).

GOAL 1: End poverty in all its forms everywhere

Targets

- 1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day.
- 1.2 By 2030, reduce at least by half the proportion of men, women, and children of all ages living in poverty in all its dimensions according to national definitions.
- 1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable.
- 1.4 By 2030, ensure that all men and women in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.
- 1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.

Indicators

- 1.1.1 Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural).
- 1.2.1 Proportion of population living below the national poverty line, by sex and age.
- 1.2.2 Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.
- 1.3.1 Proportion of population covered by social protection systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims and the poor and the vulnerable.
- 1.4.1 Proportion of population living in households with access to basic services.
- 1.4.2 Proportion of total adult population with secure tenure rights to land, with legally recognised documentation and who perceive their rights to land as secure, by sex and by type of tenure.
- 1.5.1 Number deaths, missing persons and persons affected by disaster per 100,000 people.
- 1.5.2 Direct disaster economic loss in relation to global gross domestic product (GDP).
- 1.5.3 Number of countries with national and local disaster risk reduction strategies.

Goal 5: Achieve gender equality and empower all women and girls

Targets

- 5.1. End all forms of discrimination against all women and girls everywhere.
- 5.2. Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation.
- 5.3. Eliminate all harmful practices such as child early and forced marriage and female genital mutilation.
- 5.4. Recognise and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and family as nationally appropriate.

- 5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic and public life.
- 5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences.

Indicators

- 5.1.1. Whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex.
- 5.2.1 Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age.
- 5.3.1 Proportion of women aged 20–24 years who were married or in a union before age 15 and before age 18.
- 5.3.2 Proportion of girls and women aged 15 – 49 years who have undergone female genital mutilation/cutting by age.
- 5.4.1 Proportion of time spent on unpaid domestic and care work, by sex and location.
- 5.5.1 Proportion of seats held by women in national parliaments and local governments.
- 5.5.2 Proportion of women in managerial positions.
- 5.6.1 Proportion of women aged 15 –49 years who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care.
- 5.6.2 Number of countries with laws and regulations that guarantee women aged 15 –49 years access to sexual and reproductive health care, information and education.

Progress and Status of Implementation of the Sustainable Development Goals (SDGs) in Nigeria

In 2017, the Office of the Senior Special Assistant to the President on SDGs monitored the Progress of the SDGs in Nigeria. The report shows that in order to realise the 2030 SDGs, the following has being put in place.

1. The government has established multi-layer and multi-cluster institutional frameworks for enhanced coordination and SDGs mainstreaming process.
 - a. The President has appointed a Senior Special Assistant to the President (SSAP) ON SDGs. The Office is responsible for ensuring horizontal and vertical coherence between development policies, plans and strategies. The President also established an Inter-Ministerial Committee on SDGs with and operational guideline to direct the coordinated engagement with Ministries, Departments and Agencies (MDAs). The State governments have similar structures to coordinate the achievement of the SDGs.
 - b. The government inaugurated a Private Sector Advisory Group (PSAG) and a Donors' Forum on the SDGs. There is also an ongoing collaboration between Civil Society Organisations (CSOs) and the Joint Association of Persons with Disability (JONAPWD) and Women 2030 in Nigeria.
 - c. The government set up two select committees on SDGs in the Senate and House of Representatives to supervise the implementation of the SDGs.
 - d. There is collaboration between the Office of the Senior Special Assistant to the President on SDGs and the National Youth Service Corps (NYSC). In this partnership, the NYSC is mandated to train graduating youths to become SDGs champions in the local communities and in the communities of national service, they are deployed upon graduation.
2. The government has launched an Economic Recovery and Growth Plan (ERGP) which is aligned with the SDGs. Many states claim they have also aligned their State Development Plans to align with the SDGs.
3. The government has increased the counterpart Conditional Grants Scheme required to accelerate progress in SDGs core areas.
4. The government claims to have engaged in the identification and targeting of the poor and vulnerable people by establishing a "National Social

Register” for poor and vulnerable households. Each of these households is expected to receive a monthly transfer of ₦5, 000.00 as a part of the national social safety net programme (United Nations, 2017).

Research Questions

This study seeks to provide answers to the following questions:

1. Are the residents of Makoko aware of the SDGs?
2. Are vulnerable and poor residents in Makoko receiving the government cash transfer of ₦5,000?
3. Is there any intervention programme promoting gender equality in Makoko?
4. What is the perception of the residents of Makoko about the realisation of the SDGs by 2030?

Methodology

Population

The population of Makoko is about 100,000.

Sample Size

The accidental non-probability sampling technique was used in selecting 384 respondents (Male = 124, Female = 260).

Data Collection

Data for this study was collected in Makoko from July 15 to August 30, 2018. Data was collected by simple interview. The respondents were asked whether they were aware of the SDGs, whether the vulnerable in Makoko received the monthly transfer of ₦5, 000.00. Whether there is any intervention in Makoko designed to promote gender equality in Makoko. They were also asked whether poverty and inequality were increasing or decreasing in Nigeria. They were finally asked what they think about the realisation of the SDGs in Nigeria by 2030.

Findings and Data Analysis

Table 1: Demographic Analysis of the Respondents, Awareness and Perception of SDGs

Variables	Frequency (n=384)	Percentage
Gender		
Male	124	32.29
Female	260	67.71
Education		
Primary School	120	31.25
Secondary School	210	54.69
Tertiary	54	14.06
Employment Status		
Employed	164	42.71
Unemployed	220	57.29
Awareness of SDGs		
Yes	121	31.51
No	263	68.49
Awareness of government cash transfer of ₦5,000.00 in Makoko		
Yes	0	
No	384	100
Beneficiaries of government cash transfer of ₦5,000.00		
Yes	0	
No	384	100
Is poverty increasing or decreasing in Nigeria		
Increasing	330	85.94
Decreasing	54	14.06
SDGs Gender equality intervention Programme in Makoko		
Yes	0	
No	384	100
Is Gender Inequality increasing or decreasing in Nigeria?		
Increasing	314	81.77
Decreasing	70	18.23
Attainment of the SDGs by 2030 in Nigeria		
No	299	77.87
Yes	32	8.33
Not Sure	53	13.80
Total	384	100

Source: Field data, 2018

Discussion of Findings

Table 1 shows that 124 (32.29%) of the respondents were males and 260 (67.71%) of them were females. About 120 (31.25%) of the respondents had primary education, 210(54.69%) had secondary education while 54(14.66%) had tertiary education. About 164 (42.71%) of the respondents claimed to be employed, while 220 (57.29%) of them claimed to be unemployed. The respondents were asked whether they were aware of the SDGs, 121 (31.51%) of them claimed they were aware of the SDGs while 263 (68.49%) were unaware of the SDGs.

The respondents were also asked whether they were aware of the cash transfers of ₦5,000.00 to poor persons in Makoko, all the respondents (100%) claim they were unaware of any form of cash transfers in Makoko. Similarly, all the respondents (100%) claimed nobody in Makoko has benefitted from such cash transfers. Likewise, all the respondents (100%) claimed that there were no SDGs programmes designed to reduce gender inequality in Makoko. The respondents were asked whether poverty was increasing or reducing in Nigeria, about 330 (85.94%) of them claimed that poverty was on the increase, while 54(14.06%) claimed that it is reducing in Nigeria.

Further on the challenge of gender equality, the respondents were asked whether gender inequality was increasing or decreasing in Nigeria, about 314(81.77%) of them claimed gender inequality was on the increase, while 70 (18.23%) of them claimed that it was decreasing. Overall, the respondents were asked whether, they think the SDGs will be attained in Nigeria by 2030. Most of the respondents 299(77.87%) claimed that the SDGs will not to be attained in Nigeria, 32 (8.33%) of them think the SDGs will be attained while 53(13.80%) of them were unsure whether the SDGs will be attained in Nigeria by 2030. The findings show that the level of knowledge about the Sustainable Development Goals is poor and their perception on the reduction of poverty and inequality suggest that both issues are on the increase and the goals related to them might not be achieved in Nigeria by 2030.

Conclusion

Based on the data collected and analysed, this study concludes that most of the residents of Makoko are unaware of the SDGs. No vulnerable or poor person is

receiving the five thousand (₦5,000) cash transfers in Makoko. No government intervention programme designed at poverty and gender inequality is going on in Makoko. Finally, this study concludes that Nigeria is not on track to meeting the 2030 SDGs. The country is hardly implementing the indicators required to accomplish the SDGs 1 and 5. Consequently, Nigeria may not reach most of the Sustainable Development Goals without policy changes. Using the appropriate indicators to monitor the progress of SDGs 1 and 5 in Makoko, this study found out that the nation is not on track to meeting their goals by 2030. By the 2019 SDG Report, the rank of Nigeria is 159 ahead of only three countries: Congo, Chad, and Central Africa Republic, occupying the 160, 161 and 162 positions respectively among the 162 countries implementing the SDGs. Denmark occupies the first position, Sweden occupies the second position, Egypt occupies the 92nd position, Gabon occupies the 99th position, Ghana occupies the 104th position, while South Africa occupies the 113th position (Sachs, Schmidt-Traub, Kroll, Lafortune, and Fuller, 2019).

Recommendations

This paper recommends that for poverty and inequality to become history in Nigeria and for the relevant Sustainable Development Goals to be achieved, the Federal, State and Local Governments should pay adequate attention to community development because without community development, there will be no sustainable development. This study recommends the Neighbourhood House Model of community development. This model of community development draws on the Asset Based Community Development (ABCD) Theory, which argues that all communities have assets that can be mobilised for development and that development has to start from within the community. Most importantly, this paper recommends that the government of Nigeria should implement the Sustainable Development Goals to benefit the Nation.

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CHAPTER

35

INCLUSIVE, EQUITABLE AND QUALITY EDUCATION

Aniwetalu, C.I., Akpan, F.O., and Finomo, U.A.

Abstract

Inclusive, equitable and quality education remains an unfinished agenda for national educational enrollment and this often marks a significant difference between groups and regions which Nigeria as a nation and Lagos State is not an exception. The central message is clear and simple. Every learner is unique and significantly important. The distortions arise, however, when we want to put this message into practice. This paper examines the extent of inclusive, equitable and quality education in the Lagos region, Nigeria for the actualization of the UN Sustainable Development Goals. However, the paper through content analysis discovered that the last 15 years have seen significant progress globally in expanding access to education, particularly at the primary level. Nevertheless, UNESCO's most recent figures and Global Education Monitoring Report (2016) indicate that some 263 million children and youth aged between 6 – 17 years, most of the girls are not in school today and 25 million of these children will never set foot in classroom which can be attributed to inequalities in income of households and as well gender inequality. Significant gender disparities exist with girls representing two-thirds of the total number of children out of school. The implication of the above being a high rate of drop-outs, increase in juvenile delinquencies and social vices, reduction of the nation's workforce/poor human capital formation/development and poor economic growth and development. To achieve the objectives of this paper, it is hereby recommended that there should be a sustainable public financing of education through domestic/foreign revenue, enlighten the masses on and the implementation of the free and compulsory education, effective and efficient periodical review of the curriculum in terms of its contents, objectives, methodology and evaluation, redistribution of income in

Readings in UN-Sustainable Development Goals and the Lagos Region

order to combat the adverse effect of income inequality and the need to enlighten the masses on essence of female education and empowerment.

Keywords: SDG's, Education, Inclusive and Equitable Education, UBE.

Introduction

For economic well-being of any nation to be attained such nation must understand and appreciate the importance of education. This is to say that education as an indispensable factor for economic growth and development cannot be over-emphasised. On this note, therefore, there should be provision for not just quality and functional education but education for all (Abdullahi, 2008).

Quality education provides people with the knowledge; skills, attitudes; abilities, and creativity needed to solve problems locally and globally and actively contributes to the sustainable and democratic development of societies. Hence, a nation's quest for quality and functional education must go beyond the mere learning outcomes. This is because as literacy and numeracy are necessary and part of the broader set of competencies that a quality education offers, they are yet sufficient for a country's self-reliance.

It is pertinent to point out that inclusive and equitable participation in quality education remains an unfinished agenda and continues to attract many writers to it.

Education until today still remains one of the most powerful tools for both the development of man and transformation of the society at large. In the words of Koffi Annan, 'Education is a human right with immense power to transform; on its foundation rest the cornerstone of freedom, democracy, and sustainable human development'. Several attempts have been made to give a general and holistic definition of education but it would refrain from any attempt at definition apparently because of the difficulty in encompassing all that education involves in one definition. Asserting that the word education has a normative implication, R.S. Peters proposes instead, three criteria against which to match the processes of education for fitness. Any process according to Peters

(1966) that does not satisfy these criteria, will not be called education and cannot result in the production of an educated man. The criteria are that:

- i. Education implies the transmission of what is worthwhile to those who become committed to it;
- ii. Education must involve knowledge and understanding and some kind of cognitive perspective, which are not inert;
- iii. Education at least rules out some procedures of transmission, on the ground that they lack willingness and voluntariness on the part of the learner.

Universal Basic Education (UBE) Programme as Nigeria Educational Policy for Inclusive, Equitable and Quality Education

Policies in education and of course other fields of endeavour serves as the basis and the foundation upon which decisions are made and implemented. It defines the areas in which the decisions are to be made and usually provides a general guide that facilitates decision-making. It is on this ground that educational policies are built on.

Educational policies are perhaps the most important aspect of planning and implementation in education. They are initiatives mostly by the government that determines the direction of an educational system (Okoroma, 2006).

In the words of Osokoya (1987), education is a distinctive way in which the society inducts its young ones into full membership of the society. So every modern society needs some educational policies to guide it in the process of such initiation.

The Nigerian National Policy on Education (FGN, 2004) defined basic education as the type of education received at primary school level up to junior secondary school level.

Universal Basic Education (UBE) is the transmission of knowledge to all Nigerian society from generation to generation. It has two main components— Universal and Basic Education. Universal means a programme that is meant for all arms of the society such as the poor and the rich, the physically challenged and all the school dropouts. While Basic Education means the

beginning of acquisition of desirable skill, knowledge and attitude in a formal school system. During the 1970s, the foundations were laid for a new policy, and in 1976 the Universal Primary Education (UPE) programme was launched, but it was widely considered to be unsuccessful. “A National Seminar was organised by the National Educational Research and Development Council (NERDC) in 1973 - This gave rise to the National Policy on Education in 1977.” The policy was then revised in 1981 and 1990 to try to ensure that the education sector was supportive of government development goals.

The Universal Basic Education (UBE) programme in Nigeria was launched in September 1999, having been dissatisfied with the outcome of the Universal Primary Education (U.P.E) by the then President, Olusegun Obasanjo. The programme which is a nine-year basic education programme has its vision statement was a world-class education intervention and regulating agency for the promotion of uniform, qualitative and functional basic education in Nigeria with the goal of providing free, universal and compulsory basic education for every Nigerian child aged 6-15 years. It is also a tool for the eradication of poverty which stimulates and accelerates national development, political consciousness, and national integration. It is a Nigerian's strategy for the achievement of education for all (EFA) and the education-related Sustainable Development Goals (SDG's) (UBECAR, 2018). The programme, however, was not able to take off immediately after its launch as it did not have legal backing. Therefore, initial UBE-related activities were carried out only in areas of social mobilisation, infrastructural development, provision of instructional materials, etc. The UBE programme only took off effectively with the signing of the UBE Act in April, 2004.

The main beneficiaries of the programme are:

- Children aged 3-5 years, for Early Children Care and Development Education (ECCDE);
- Children aged 6-11+ years for primary school education;
- Children aged 12-14+ years for junior secondary school education.

Its scope included the following expansion of activities in basic education:

- "Programmes and initiatives for [ECCDE];

- "Programmes and initiatives for the acquisition of functional literacy, numeracy and lifeskills, especially for adults (persons aged 15 and above);
- "Out-of-school, non-formal programmes for the updating of knowledge and skills for persons who left school before acquiring the basics needed for lifelong learning;
- "Special programmes of encouragement to all marginalised groups: girls and women, nomadic populations, out-of-school youth and the *almajiris* (*Qur'anic student*);
- "Non-formal skills and apprenticeship training for adolescents and youth, who have not had the benefit of formal education."

As stated in the Universal Basic Education Commission Annual Report (UBECAR, 2018) the objectives of the programme include:-

1. Ensuring unfettered access to nine years of formal basic education.
2. The provision of free, universal basic education for every Nigerian child of school going age.
3. Reducing drastically the incidence of drop-out from the formal school system, through improved relevance, quality, and efficiency.
4. Ensuring the acquisition of appropriate levels of literacy, numeracy, manipulative, communicative and life skills as well as the ethical, moral and civic values needed for laying a solid foundation for life-long learning.

Despite these laudable objectives and vision statement of the programme, the question now is to what extent has the programme efficiently and effectively been implemented? Have those objectives been achieved or attained in Nigeria? How many Nigerian children have benefited fully from the programme?

At this juncture, it is worthy to note that according to UBECAR (2018), the implementation process of the programme has been on since 1999 but the progress was hampered by lack of an enabling law to execute certain aspect of the programme and the entrenched corruption in the society especially in the public sector today.

Theoretical Framework

Socio Constructivist Theory

This study adopted the theory of Lev Vygotsky (1978) social constructivism theory. Vygotsky theories stress the fundamental role of social interaction in the cognitive development of a child. Vygotsky believed that the role of the teacher in education is crucial. In developing children abilities, teachers can guide them towards performing tasks which are just beyond their current capacity. With such guidance, children can perform beyond their own ability within certain limits. Vygotsky defined these limits as the zone of proximal development.

More so, Vygotsky believed that, community plays a central role in the process of making meaning to children cognitive development. The perceptual attention and memory capacity of children are transformed by vital cognitive tools provided by culture, such as history, traditions, language, religion and social context. For learning to occur, the child must first make contact with the social environment on an interpersonal level and then internalises this experience. This means that, what the child is able to do in collaboration today, the child will be able to do independently tomorrow. Vygotsky (1978) posited that, the culture gives the child the cognitive tools needed for development. This makes the study to lend its credence on Vygotsky social constructivism theory because of the significance to culture and social context.

Implication of Social Constructivist Theory to Basic Education.

If Vygotsky is correct that children develop in socio-cultural settings. For teaching and learning to go on smoothly, basic school teachers need to adopt constructivist teacher's ideas by creating a context for learning in which, students can become engaged in interesting activities that facilitates learning. The teachers may often guide students as they approach problems, may encourage them to work in groups, to think about issues and support them with advice as they tackle challenges that are rooted in real life situations.

However, Basic education teachers can apply the following four principles of Vygotsky theory of social constructivism, in their schools to enhance teaching and learning processes of the children:

- a) Learning and development is a social, collaborative activity in the society.
- b) The zone of proximal development can serve as a guide for curricular and lesson planning.
- c) School learning should occur in a meaningful context and not be separated from learning children develop in the “real world”.
- d) Out-of-school experiences should be related to the child school experience.

Education and Sustainable Development Goals (SDG’-s)

The Sustainable Development Goals (SDG’-s) (or Global Goals for Sustainable Development) are a collection of 17 global goals set by the United Nations General Assembly. It is part of the Resolution 70/1 of the United Nations General Assembly for transforming our world by the year 2030 and thus, shortened to “2030 agenda for sustainable development”.

The goals are broad and interdependent, yet each has a separate list of targets to achieve. Advising all 169 targets which are measured by 304 indicators would signal to accomplish all 17 goals which cover social and economic development issues including poverty, hunger, health, education, global warming, gender equality, water, sanitation, energy, urbanisation, environment, and social justice.

Education for sustainable development (ESD) is explicitly recognised in the SDGs as part of Target 4.7 of the SDG on education. UNESCO promotes the Global Citizenship Education (GCED) as a complementary approach. At the same time, it is important to emphasise education for sustainable development’s importance for all the other 16 SDGs. With its overall aim to develop cross-cutting sustainability competencies in learners, education for sustainable development is an essential contribution to all efforts to achieve the SDGs. This would enable individuals to contribute to sustainable development by promoting societal, economic and political change as well as by transforming their own behaviour.

SDG'-s Goal 4: Quality Education

"Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all."

Major progress has been made in access to education, specifically at the primary school level for both boys and girls. Still, at least 22 million children in 43 countries will miss out on pre-primary education unless the rate of progress doubles. Access does not always mean the quality of education or completion of primary school. 103 million youth worldwide still lack basic literacy skills and more than 60 percent of those are women. In one out of four countries, more than half of children failed to meet minimum math proficiency standards at the end of primary school, and at the lower secondary level, the rate was 1 in 3 countries. Target 1 of Goal 4 is to ensure that, by 2030, all girls and boys complete free, equitable, and quality primary and secondary education.

Additionally, progress is difficult to track: 75 percent of countries have no or insufficient data to track progress towards SDG Goal 4 targets for learning outcomes (Target 1), early childhood education (Target 2), and effective learning environments. Data on learning outcomes and pre-primary school are particularly scarce; 70 percent and 40 percent of countries lack adequate data for these targets, respectively. This makes it hard to analyse and identify the children at greatest risk of being left behind. (SDG'-s, 2004).

Targets & Key Indicators of Achieving Universal Inclusive, Free Quality, and Equitable Education

Though many well-being indices have been released to incorporate educational progress and success starting from the HDI and recently the Senior Secondary I (SSI). The various attempts have been made to produce a comprehensive and comparative index for measuring educational progress in different dimensions as well as comparing among countries

According to the Organisation for Economic Cooperation and Development (OECD) Annual Report 2018, Indicators to Education include among others the following:

- Literacy rate. This with some combination of its variance that is, not just one is important, but both the score and the range of scores.

- Percentage of total educational spending on different levels of education (that is, distribution of educational spending on pre-primary, primary, secondary, tertiary. Assume the lower should be at least equal, showing a strong focus from an early age).
- Measurement of whether the government adequately prepares for the upcoming labour force – the difference between graduates by subject, versus types of jobs available. Or could change the focus and say measurement of young adults knowing how to equip themselves with skills for working by measuring the difference between enrollments by subject versus types of jobs available.
- The proportion of tertiary students going abroad, which is a negative proxy for how well students see their education system as preparing them, and also how many students from abroad come, which is a positive proxy for how well the education system is viewed from abroad.
- Focus on a qualified teacher force – percent of trained teachers. The second level to that would be teacher's pay, and percent of educational spending going to teachers, and teacher focus on independent research/additional teaching.
- After a threshold of that, it can move on to the quality of teachers, taking into account mean teacher salaries as a ratio of mean national salary; a measure of autonomy for teachers.
- Adult learning: Percent of adults that have taken adult training, weighted by (years of total learning – (duration of compulsory education + tertiary education)).
- Focus on whole life learning: a measure of the proportion of lessons in non-academic subjects, such as civic participation, society, environmental issues, sustainable development, even physical education (if they recommend two to three hours of exercise per week that should be incorporated in schools).
- An overall weight to issues regarding compulsory education, GER GPI at all levels, only closer to 1, so above 1 is also detrimental.
- The other base levels, such as enrollment rate, survival rate, out of school rate, which needs to be passed before progressing to more important indicators.

SDG'-s Goal on Education: Targets and Indicators

Target 1: By 2030, every child completes a full cycle of continuous, free quality early childhood, primary, lower and upper secondary education which enables them to achieve their potential as human beings and to contribute positively as achieved members of society.

Target 2: By 2030, all young people and adults have equitable access to quality post-secondary education and lifelong learning, enabling them to acquire knowledge, skills, and competencies to achieve their full potential and participate positively in society and in the world of work.

Indicators:

- Percentage of children and young people who participate and complete early childhood, primary, lower and upper secondary education to the appropriate national standards, disaggregated by socioeconomic status, location, gender, special needs, age, social group, among others.
- Percentage of children and young people who demonstrate learning achievement broadly defined and determined through multiple measures and consistent with national standards, disaggregated by socioeconomic status, location, gender, special needs, age, social group, among others.
- Percentage of educational institutions that are publicly financed, do not charge fees and are not for profit.
- Percentage of children and young people taught by qualified teachers with a reasonable number of students to qualified teacher ratio.
- Percentage of educational institutions that have adequate professional and students support, including teaching assistants, medical and psychological services.
- Percentage of educational institutions that have safe and adequate infrastructures, facilities, resources and learning materials for all students according to the national norms.
- Breadth of curriculum, including an assessment of its contribution to active citizenship, life skills, sustainable development, health, employment etc.

Methodology

The paper utilises content analysis which is a secondary source of data collection.

Content analysis is a research method for studying documents and communication artifacts which might be texts of various formats ranging from journals, literatures, books, pictures, audio or video.

Social scientists use content analysis to examine patterns in communication in a replicable and systematic manner. One of the key advantages of using content analysis to analyse social phenomena is its non-invasive nature, in contrast to stimulating social experience or collecting survey answers (Wikipedia, 2019).

Findings

Hopgood and Leevwen (2017) reported that the national education enrollment figures often mask the difference between groups and regions, and those who tend to remain excluded are basically the poor, female, socially/ ethnically/ linguistically marginalised, disabled children and adults migrant that lives in distant rural areas and/or fragile state.

UNESCO's most recent figures and Global Education Monitoring Report (2016) indicate that some 263million children and youth aged between 6 – 17 years, most of the girls are not in school today and 25million of these children will never set foot in classroom which can be attributed to inequalities in income of households and as well gender inequality . Significant gender disparities exist with girls representing two-thirds of the total number of children out of school. Also, in UNESCO's Report (2014), the right of all children to an education is asserted in numerous international treaties and texts and has been affirmed by both legally binding and non-binding instruments. States therefore have an obligation to respect, protect and fulfill the right of all learners to education. The education 2030 framework for action has been adopted by the global education community to advance progress towards Sustainable Development Goal 4 and its targets and indicators. The framework stresses the need to address all forms of exclusion and marginalisation in education. It specifically calls for addressing inequalities related to access, participation and learning processes

and outcomes, paying particular attention to gender equality. This includes efforts to enable the education system to serve all learners with a particular focus on those who have traditionally been excluded. Education policy can strongly be influenced and support inclusive thinking, equity, and quality practices by establishing the equal right of every individual to education, and by outlining the forms of teaching, support, and leadership that lay the foundation for quality education for all (UNESCO, 2015). On this note, the Nigerian government in one of her policies in education launched the Universal Basic Education (UBE) programme.

Furthermore, UNESCO's Report (2015), Nigeria ranked 103 out of 118 countries in UNESCO's Education for All (EFA) Development Index, which takes into account universal primary education, adult literacy, quality of education, and gender parity.

However, UNESCO's 2015 review of education in Nigeria found that enrollment at primary and junior secondary levels had greatly increased since 2000. However, transition and completion rates remained below 70%. Enrollment rates increased by 130% for secondary education in the period from 2000 to 2013 (based on the latest available statistics from the World Bank), but decreased by 4% for the primary level.

In its latest review of Nigeria's educational standing in 2015, UNESCO has concluded that although progress has been made in basic education, much more remains to be done, both in quantity and quality:

- Participation in primary education is still low in comparison with primary school age population;
- The quality of the national school curriculum is undermined by the generally low quality of teachers who implement it, which translates into low levels of learning achievement;
- Infrastructure, toilets and furniture are inadequate and in a dilapidated state;
- The system of collecting comprehensive, relevant data for planning is weak;
- There are social and cultural barriers that are hindering female participation:-

Although the Nigerian public viewed the objectives of the UBE positively, their perception of the country's education infrastructure – as well as the government and institutions responsible for running it were negative.

A study produced for the World Bank in 2000 on the Nigerian education sector concluded that: “The public perception is that the quality of education offered is low and that standards have dropped. These perceptions are based on lack of adherence to acceptable educational practice. Teacher qualifications are low. The learning environment does not promote effective learning. Basic facilities, teaching and learning resources are generally not available. Teacher-pupil ratios are high. General performance in examinations is poor and the graduates have low levels of competencies in the work environment.”

Corruption was also a factor affecting public confidence. According to a survey conducted by GeoPoll in Nigeria, over half of respondents reported that they frequently encounter corruption in public services, especially in the education sector. “54 percent of Nigerians report that they always or frequently encounter corruption in their interactions with public services. The poll surveyed 2,000 Nigerians about their experiences with corruption in fundamental sectors and found that while Nigerians consider education and electricity to be among the most important public services, they are also seen as the most corrupt. The poll also found that the poorest Nigerians are most affected by corruption.”

The Government of Nigeria has made recurrent attempts to reform its education system since the 1970s, but has lacked the alignment and political continuity to implement its programmes successfully. Although UBE has been announced as a priority by every Nigerian government since its introduction, the actual commitment of the different governments to the scheme has varied substantially. The economic problems encountered have also contributed to the difficulties experienced in its implementation.

Importance of Inclusive, Equitable and Quality Education in Nigeria

By definition, inclusion is a process that helps overcome barriers limiting the presence, participation, and achievement of learners. On the other hand, equity is about ensuring that there is a concern with fairness, such that the education of all learners is seen as having equal importance.

WHO and the World Bank, (2011) reported that children with disabilities are among the most marginalised and excluded groups of children; routinely, they are denied their right to quality education. This is why UNESCO, (2001) rightly pointed out that establishing inclusive schools is widely regarded as desirable for equality and human rights and it has educational, social and economic benefits.

Quality education provides the citizens of a country with the right knowledge, skills, attitudes, opportunities, and creativity needed to solve problems domestically and at the international level thereby actively contributes towards the sustainable and democratic development of societies.

Also, equitable quality and inclusive education leads to peace, social justice, long-term welfare, and development; the challenges are to aim for more than measurable short-term outcomes. It provides an avenue to put in place a platform for sustainable development that is aspirational and courageous.

Education for all has a common understanding that the education system has the potentials to promote gender equality, reduce inequalities, develop teacher and system capabilities, and encourage a supportive learning environment. These various efforts and contributions will, in turn, contribute to overall improvements in educational quality.

Another importance of inclusive, equitable and quality education is its opportunity in valuing the presence, participation, and achievement of all learners, regardless of their contexts and personal characteristics thereby recognising the benefits of students' diversity, and how to live with, and learn from differences.

It helps also in collecting, collating and evaluating evidence on children's barriers to educational access, to participation and performance/achievement with particular references to learners who may be most at risk of underachievement, marginalization or exclusion.

Impediments to the Effective Implementation of Inclusive, Equitable and Quality Education in Nigeria

So many factors have been identified to hinder effective implementation of inclusive, equitable and quality education in Nigeria. Some of these factors are summarised under the following.

1. Social factors include; preference of male children to female children in some tribes in Nigeria, unadoptable school environment, language and communication barriers, inadequate personnel and teachers, lack of infrastructure.
2. Economic factors include; high tuition fees and indirect cost of education, inflation, and budget constraints.
3. Political factors include; lack of political will and favourable government policies, corruption and nepotism.
4. Emotional factors include; discrimination and marginalisation of children with disabilities, loss of sense of belonging and inferiority complex.

Conclusion

Education all over the world is and still remains the best instrument for the achievement of a good life. For this reason, all nations of the world must put the necessary resources together to achieve a truly inclusive, equitable and quality education for all.

Education policies must be credible and realistic so as to incorporate smooth and successful planning and implementation of education for all.

Recommendations

1. A renewed commitment to free, compulsory and quality education is urgently clamoured for being a public good and basic right to citizens of a nation, education needs to be publicly financed, and there is a need to meet up with the stipulated benchmark on the allocation of budget and resources to education by UN.
2. Nigeria long-term goal on education should be sustainability and maintenance.

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3. There should be a quality assurance in the review of educational curriculum and adoption of a broad and integrated curriculum to take care of functional education in all levels of education.
4. The government, NGO's, corporate affairs, and individual intervention in the funding of education are a paramount.

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CHAPTER

36

EFFECT OF GAMBLING ON UNDERGRADUATE STUDENTS IN THE UNIVERSITY OF LAGOS: COUNSELLING IMPLICATIONS

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Abstract

The study investigated the effect of gambling on undergraduate students in the University of Lagos. Survey research design was used for the study. The Undergraduate students in the 12 faculties in the University form the population for the study. Stratified random sampling was employed to select four faculties out of the 12 faculties. Purposive sampling method was then used in selecting 350 students for the study. The instrument for data collection was a 29-item self-structured 4-point Likert scale questionnaire. The reliability of the instrument was determined using split half method and it was subjected to Pearson's product moment to determine the internal consistency of the instrument. This yielded a reliability coefficient of 0.78. This was considered high enough for the instrument to be used for the study. Data collected were analysed using mean score and standard deviation for the research questions, while the Chi-square statistical tool was used in testing the hypothesis stated. The result from the study revealed there is a significant effect of gambling on the finance, academic and social lives of the undergraduate students in the University of Lagos. It also showed that there is a significant gender difference in participation in gambling activities among the students. Based on the findings, it was recommended among other things that financial prudence should be taught to students through the counselling unit of the student affairs' division in order to make them understand the

dangers of seeking for quick and easy money. Study habit and study attitude of the students need to be emphasised. The male students need to be counselled as it is discovered that they involve in gambling activities more than their female counterparts.

Introduction

Betting in Nigerian is witnessing a lot of patronage especially from the young and young at heart in recent times. Betting and gambling are two sides of the same coin. Though different authorities have over the years tried to distinguish between betting and gambling.

Gambling is like the umbrella term which has betting as its component. Gambling according to Waziri Azi (2016), is an activity that humans have taken an interest in since time immemorial. People in the bid to win expected fortune have been wagering on certain outcome of a future events right from the ancient times. Gambling oftentimes gives a gambler a profound feeling of excitement in anticipation for a win or preferred outcome turning up. Gambling is an activity that is based upon chance or luck. It has nothing to do with the skills of a person. This means that a person can keep on playing and wagering for a long time without winning. Betting on the other hand is predicting the outcome of a future event and placing a wage on the outcome. It is an agreement between two people where one person makes a prediction and the other person (usually the betting company) either forfeits the amount waged in the case of incorrect prediction or pays a higher amount as per agreed terms. If the prediction turns out to be correct.

While gambling is the generic word used to describe all activities of placing wages on particular outcomes or events taking place, betting is carried out to validate the activities of gambling.

Different governments all over the world have strict laws that check and guide the activities of gambling and betting, Nigeria inclusive.

Lawful gambling in Nigeria include:

- Licensed pool betting are in Section 239, subsection 3 approves the licensed pool betting but only if no part of the process gives an unfair advantage. It includes others forms of betting such as sports betting.

- Lottery Section 240 of the Constitution also makes provisions for lottery as a legal game.

These provision make games like sport betting- NairaBet, BetNaija, 360Bet, Winner Golden Bet, Memory Bet, Lotto Naija, Bet Ensured to mention a few, legal in Nigeria. According to the Provisions, participation in lottery and betting games is supposed to be played by people who are 18 years and above. However, there is no adequate monitoring therefore one can see young people in betting outlets across the country. It is an all comers affair. Betting, especially sports betting is really becoming a very lucrative venture. There are so many betting outlets at every nook and cranny in the country. Both young, old, educated non-educated, male and female are really getting into the craze of sports betting. No one is actually seeing the imminent dangers of betting for the youth. Betting can lead to addictive gambling. Addictive behaviour affects an individual's social, psychological and intellectual functioning. While betting is seen as a game and can be played by anyone, gambling on the other hand can become addictive in nature.

Gambling addiction is a compulsive behaviour that makes the person addicted to constantly search for means to carry out the gambling activities. Gambling addiction has a lot of social and economic effect on both the gambler and the family.

According to American Psychiatric Association (2013) gambling becomes an addiction when it is something an individual cannot control anymore. Also, it becomes addictive when it starts to have negative and severe effects on a person's or even a family's financial, social, familial, recreational, educational or occupational functioning According to Van Holst, Vande, Vatmen and Goudriaan (2010) and Jabr (2013), people who are prone to gambling addiction include but are not limited to:

- People with low levels of serotonin,
- People with a more impulsive nature,
- People who seek out activities that provide immediate rewards; such as getting money quick without working for it, and
- People who tend not to consider long-term consequences of their actions.

Keuma (2018) opines that gambling can be fun and exciting, low-risk recreational activities for some people, for others however, gambling shifts from causal pastime to serious addiction.

Bates (2015) revealed that gambling as a behavioural addiction refers to the uncontrolled urge to gamble, despite serious personal consequences. Problem gambling can impact a person's interpersonal relationship, financial situation, physical and mental health. Problem gambling can make a young person to turn to pilfering and stealing. Even lying to obtain money and in serious cases selling or waging important personal or family properties most especially electrical and electronic gadgets in order to be able to gamble. This is because, it has become an addiction that the individual must look for a way to satisfy.

Before 1980, problem gambling was not recognised as a serious psychological and mental health issue. It was until the third edition of the Diagnostic and Statistical Manual of the American Psychiatric Association labelled it pathological gambling and classified it with other impulsive behaviours like kleptomania and pyromania, that many psychologists and psychiatrists began to study the effects of addictive or problem gambling on the individual, the family and the society at large. It has received enough attention most especially in developed countries such as America and the United Kingdom and has now been renamed "gambling disorder" and is now classified with other disorders of similar nature like substance related and addictive disorder. Jabr (2018) is of the opinion that years ago, the idea that gambling was an addictive behaviour was not common. In Nigeria, like other developing countries, the effect of addictive gambling especially on the youth has not been extensively studied empirically. However, there are a lot of complaints by adults and parents and a lot of cases where families have lost a lot of money or family belongings owing to the involvement of members of the family in addictive gambling. According to Lesieur (1987), Meyer and Fabian (1992), financial losses pose the most dangerous and immediate cost to any gambler. This is because, as the individual runs short of funds to gamble with, he or she often resorts to all kinds of illicit behaviours which may include stealing, pilfering, obtaining by trick and others, to pay up debts, maintain appearances and get more funds to continue gambling.

Hansen (2011) reports that gambling differs from other addictive activities like drinking alcohol and smoking tobacco because nothing is introduced into the body and the disorder cannot be seen or smelled. Nevertheless, in the worst cases, the consequences for the gambler and his or her environment are at least as serious as for other forms of addiction. This therefore calls for empirical evidences of the effect of gambling on the educational, social, recreational, psychological well-being of Nigerian youth and ability to present them with the imminent dangers of addictive gambling. Deverensky and Gilbeau (2016) examined the empirical evidences as regards correlates of adolescents gambling over the past 25 years. They found out that male adolescents are more likely to be problematic gamblers than female adolescents.

Statement of Problem

Despite the fact that betting is a game that can degenerate to addictive gambling, which is a serious psychiatric and psychological problem, many young people in Nigeria are quickly embracing betting and gambling not only as a means of predicting sporting activities but mostly as a means of making quick money. The reason for this is not far-fetched. It can be attributed to the economic condition in the country; inflation rate, unemployment, government inability to adequately provide for the teeming masses of the country, coupled with the materialistic nature of this present day Nigerians. Many young people are tempted today to engage in different types of betting activities in the hope of making quick and easy money. The danger in this, however is that many of the youth are becoming addicted to it and therefore they are now engaging in different nefarious activities to fuel the passion and to raise the money needed for betting. This portends serious dangers for the individuals, families and the nation as a whole. The main focus of this study therefore is to identify the different dangerous effect of betting and addictive gambling on undergraduate students and to proffer counselling strategies that can be employed in assisting the students to desist from betting and gambling.

Purpose of Study

The main purpose of this study was to identify the effect of gambling on the financial, educational, social and recreational activities of undergraduate students in the University of Lagos, Specifically, the study set out to:

1. Identify the effect of gambling on the finances of the students.
2. Find out the effect of gambling on their academic activities.
3. Ascertain the effect of gambling on their social/family lives.
4. Find out if gambling affects their health behaviour.
5. Determine gender difference in engaging in gambling among the undergraduates.

Research Questions

The following research questions guided the study.

- What are the effects of gambling on the finances of the students?
- Does gambling affect the academic activities of the students?
- To what extent does gambling affect the social lives of the students?
- To what extent does gambling affect the health behaviour of the students?
- Is there gender difference in participation in gambling activities among the students?

Hypotheses

1. There is no significant effect of gambling on the finances, academic and social lives of the undergraduate students in University of Lagos.
2. There is no significant influence of gender on participation in gambling activities among the students.

Methods

The study adopted a descriptive survey method. This design is considered appropriate for the study because the study involved collecting data from a sample of students regarding their perception of the effect of gambling on different aspects of their lives. The Population of the study was all the undergraduate students in the 12 faculties in the University of Lagos. Stratified random sampling technique was employed in selecting 4 faculties out of the 12 faculties. Then purposive sampling method was then used in selecting 350 students for the study. The instrument for data collection was a 29-item self-structured 4-point Likert scale questionnaire. The instrument was validated by experts in the field of Guidance and Counselling from the University of Lagos. The reliability of the instrument was determined using split half method and it was subjected to Pearson's product moment to

determine the internal consistency of the instrument. This yielded a reliability coefficient of 0.78. This was considered high enough for the instrument to be used for the study. The researcher administered the instrument directly to the respondents. This ensured that majority of the copies of the questionnaire were retrieved. Data collected were analysed using mean score and standard deviation for the research questions, while the Chi-square statistical tool was used in testing the hypothesis stated. Only 334 copies of the questionnaire which were properly filled and returned; which is 86.5% of the questionnaire and was used in the data analysis.

Results

Research Question 1: What are the effects of gambling on the finance of the students?

Table 1: Effect of Gambling on Student Finances

S/N	INFLUENCE	SA	A	D	SD	MEAN
1	I am always broke because I wage huge amount of money in gambling.	115 34%	19 6%	70 21%	130 39%	2.4
2	I spent all my pocket money on gambling and I can't help it.	72 22%	40 12%	84 25%	138 41%	2.1
3	I sometimes borrow money in order to gamble.	78 23%	67 20%	119 36%	70 20%	2.4
4	I pilfer my parents' money to make sure I gamble.	68 20%	77 22%	61 18%	128 38%	2.2
5	Gambling has made me to always look for how to get money even if it means stealing.	49 14%	74 22%	84 25%	127 38%	2.1
6	I sell my belongings and even family belongings to gamble.	87 26%	47 13%	65 19%	135 40%	2.4
7	I frequently borrow money or ask my parents for unnecessary money just to gamble.	114 34%	42 13%	132 40%	46 13%	2.6
8	I alternate between being broke and flashing money around.	71 21%	74 22%	88 26%	101 30%	2.3
9	The money I win from gambling makes me to be extravagant in my spending.	117 34%	61 18%	62 18%	94 28%	2.6

The analysis from Table 1 shows that the respondents disagreed with the statement that they are always broke because they wage huge amount of money in gambling, they spent all their pocket money on gambling and they can't help it, with mean scores of 2.4, 2.1 and 2.4 respectively which is below the calculated mean of 2.5 on item 4, item 5, and item 6 with a mean score of 2.2, 2.1 and 2.4 the respondent disagreed that they pilfer their parents' money to make sure they gamble, gambling has made them to always look for how to get money even if it means stealing and that they sell their belongings and even family belongings to gamble.

On item 7, and item 9 with a mean score 2.6 which is above the calculated mean of 2.5 the respondents agreed that they frequently borrow money or ask their parents for unnecessary money just to gamble and the money I win from gambling makes me to be extravagant in my spending. While on item 8 the respondents disagreed with the statement that they alternate between being broke and flashing money around.

Research Question 2: Does gambling affect the academic activities of the students?

Table 2: Effects of Gambling on Academic Activities

S/N	INFLUENCE	SA	A	D	SD	MEAN
10	I prefer to go out to gamble than to stay in the class.	50 15	106 32%	105 31%	73 22%	2.6
11	Whenever I lose my game, it affects my mood and I cannot read.	55 17	68 20%	86 26%	125 37%	2.3
12	I can no longer concentrate on my studies because I am thinking of the money I will win in gambling.	104 31%	63 19%	71 21%	96 29%	2.0
13	I skip school a lot owing to my gambling activities.	98 29%	58 17%	63 19%	115 35	1.9
14	I hardly pay attention in class because I think of gambling always.	74 22%	38 11%	102 31%	120 36	2.1
15	I find it difficult completing my assignment owing to TV poker, Internet gambling sites and video arcades.	89 27%	45 13%	83 25%	117 35	2.0
16	My academic performance is being seriously affected because of my gambling activities.	105 31	40 12%	55 17%	134 40%	1.7

From Table 2, with a mean score of 2.6 which is above the calculated mean means the respondents agreed that they prefer to go out to gamble than to stay in the class. Furthermore, item 11, 12, 13, 14, 15, and 16 with a mean score of 2.3, 2.0, 1.9, 2.1, 2.0, 1.7 respectively which is below the calculated mean means the respondents disagreed that, whenever they lose their game, it affects their mood and they cannot read, they can no longer concentrate on their studies because they are thinking of the money they will win in gambling. Also, they skip school a lot owing to their gambling activities; they hardly pay attention in class because they think of gambling always, they find it difficult completing their assignment owing to TV poker, Internet gambling sites and video arcades, their academic performance is being seriously affected because of their gambling activities. This in essence shows that participating in gambling does not affect their academic performance.

Research Question 3: To what extent does gambling affect the social lives of the students?

Table 3: Effect of Gambling on Social/Family Activities

S/N	INFLUENCE	SA	A	D	SD	MEAN
17	I am not always in the mood to stay with friends who do not support my gambling activities.	106 31%	39 12	137 41	52 16	2.0
18	My family members are annoyed with me because I gamble.	79 24%	55 16	92 28	108 32	2.1
19	I have caused my parents a lot of pain because of my gambling and we always have squabbles.	73 22%	50 15%	111 33%	100 30%	2.2
20	I wish I can stop gambling.	93 28%	30 9%	44 13%	167 50%	1.8
21	I do not have time for my friends and family activities because I am preoccupied with my gambling.	111 33%	23 7%	137 41%	63 19%	1.8
22	My family complain always about missing money and other appliances in the house.	70 21%	64 19%	80 24%	120 36%	2.2
23	I withdraw from my family and suddenly outburst of anger especially when I lack money to gamble.	106 32%	50 15%	128 38%	50 15%	2.0
24	I experience a lot of boredom and mood swings because of my gambling acts.	62 19%	28 8%	109 33%	135 40%	2.1

On Table 3, the analysis reveals that the respondents disagreed with all the statement items (item 17, 18, 19, 20, 21, 22, 23 and 24) with a mean score of 2.0, 2.1, 2.2, 1.8, 1.8, 2.2, 2.0, 2.1 which is below the calculated mean of 2.5 respectively. This shows that their social life is not affected.

Research Question 4: To what extent does gambling affect the health behaviour of the students?

Table 4: Effect of Gambling on Health Behaviour of Students

S/N	STATEMENT	SA	A	D	SD	MEAN
25	I feel depressed any time I lose my wager.	128 38%	39 12%	111 33%	56 17%	1.8
26	I have lost weight as a result of thinking/not sleeping due to loosing at gambling.	52 16%	104 31%	72 22%	106 31%	2.5
27	I have lost my self-esteem to gambling wins and losses.	105 31%	29 9%	157 47%	43 13%	2.0
28	I lose appetite for food whenever I lose during gambling.	118 35%	27 8%	123 37%	66 20%	1.8
29	I often have headaches and stomach ache due to being anxious for winning or losing.	49 14%	41 13%	89 26%	155 47%	2.2

On Table 4, the responses reveal that the respondents disagreed with item 25, 27, 28 and 29 on the statement that, they feel depressed any time they lose their wager, they have lost their self-esteem to gambling wins and losses. They lose appetite for food whenever they lose during gambling. They often have headaches and stomach ache due to being anxious for winning or losing. With a mean of 1.8, 2.0, 1.8 and 2.2 respectively, which is below the calculated mean of 2.5. While on item 26, the respondents agreed that they have lost weight as a result of thinking and not sleeping due to losing at gambling with a mean score of 2.5 which is equal to the calculated mean of 2.5.

Test of Hypotheses

Table 5: Hypothesis ONE: There is no significant effect of gambling on the finance, academic and social lives of the undergraduate students in University of Lagos

A	D	
134	200	334
112	222	334
145	189	334
145	189	334
123	211	334

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134	200	334
156	178	334
145	189	334
178	156	334
1272	1734	3006

Table 6: Chi-square Analysis of the effect of gambling on the finance, academic and social lives of the undergraduate students in the University of Lagos

CELL	O	E	O-E	(O-E) ² /E
1.	134	141	-7	0.35
2.	200	193	7	0.25
3.	112	141	-29	5.96
4.	222	193	29	4.35
5.	145	141	-4	0.11
6.	189	193	4	0.08
7.	145	141	-4	0.11
8.	189	193	4	0.08
9.	123	141	-18	2.29
10.	211	193	18	1.68
11.	134	141	-7	0.34
12.	200	193	7	0.25
13.	156	141	15	1.60
14.	178	193	-15	1.17
15.	145	141	4	0.11
16.	189	193	-4	0.08
17.	178	141	37	9.71
18.	156	193	-37	7.09
TOTAL	3006	3006		χ^2 cal = 35.65

χ^2 cal = 35.65

χ^2 tab = 7.815

Degree of freedom (df) = 6

Level of significance = 0.05

Decision: Since χ^2 cal (35.65) is greater than χ^2 tab (7.815), the alternative hypothesis is accepted which states that there is a significant effect of gambling on the finance, academic and social lives of the undergraduate students in University of Lagos.

Table 7: Hypothesis Two: There is no significant influence of gender on participation in gambling activities among the students

A	D	N
145	189	334
134	200	334
123	211	334
123	211	334
134	200	334
134	200	334
156	178	334
90	244	334
1039	1633	2672

Table 8: Chi- Square (χ^2) analysis of gender difference in participation in gambling activities among the students

CELL	O	E	O-E	(O-E) ² /E
1.	145	130	15	1.73
2.	189	204	-15	1.10
3	134	130	4	0.12
4.	200	204	-4	0.08
5.	123	130	-7	0.38
6	211	204	7	0.24
7.	123	130	-7	0.38
8.	211	204	7	0.24
9.	134	130	4	0.12
10	200	204	-4	0.08

11.	134	130	4	0.12
12.	200	204	-4	0.08
13.	156	130	26	5.20
14.	178	204	-26	3.31
15.	90	130	-40	12.30
16	244	204	40	7.84
Total				χ^2 Cal =33.33

Summary of χ^2 analysis of hypothesis Two

χ^2 Cal = 33.33

χ^2 Crit = 7.815

Degree of freedom = 6

Level of significance = 0.05

Decision: Since χ^2 cal (33.33) is greater than χ^2 tab (7.815), the alternative hypothesis is accepted which states that there is a significant gender difference in participation in gambling activities among the students.

Discussion of Findings and Implications

The finding shows that gambling affects the finance, academic activities of students, the social lives of students and health behaviour of students. The implication of this is that the students need to be guided and counselled on the dangers of gambling. This goes to buttress the views of Bates (2015). Gambling affects not only the gambler but also the entire family and society. This is the major reason why students should be encouraged to shun the temptation of involving themselves in any gambling activity.

The result from the study showed that gambling has influence on the academic activities of the students. In other words, the academics of the students who engage in gambling suffer. This is expected because the time the students are supposed to invest in their studies is wasted on betting and gambling activities all in the name of winning a fortune. It is not possible for anyone to eat his or her cake and have it. Time wasted on gambling activities cannot be redeemed.

Students, therefore, needs to be cautioned to refrain from unscrupulous activities that may truncate their academic endeavours.

Gambling was discovered to also affect the health of the students, as those who engage in gambling may lose sleep over whether they would win or not. Also, the waiting and expectation for the outcome of the gambling activities may bring about anxiety. Serious anxiety, may lead to other health issues.

The test of hypothesis two revealed that there is a significant influence of gender on participation in gambling activities among the students. The finding is in line with the findings of Gilbeau (2016) who discovered in his own study that males participate more in gambling than the females. This is quite understandable as male children are known to venture into risky behaviours more than their female counterparts.

The implication of the finding of this study is that the University authority through the counselling unit should intensify awareness against unwholesome and illicit behaviours that young people are exposed to especially when they are far away from home and in the midst of their peers.

Conclusion

Betting as a game is gradually turning into addictive gambling for young people in this day and age. Many young people are now caught in the web of this addictive behaviour. Betting in itself is seen as a game and does not have adverse effect on any player. However, gambling can degenerate into addictive behaviour and can have negative effect on a gambler socially, educationally, psychologically and health wise. The negative effect of gambling cannot be overemphasised. This paper therefore concludes that gambling is a negative social activity that can impact negatively on the gambler if care is not taken. This, therefore, calls for proper enlightenment of the students in order to expose them to the dangers of gambling.

Recommendations

Based on the findings of the study, the following recommendations were made.

Reading in UN-Sustainable Development Goals and the Lagos Region

- Financial prudence should be taught to students through the Counselling Unit of the Student Affairs' Division in order to make them understand the dangers of seeking for quick and easy money.
- Study habit and study attitude of the students need to be emphasised. They need to understand the major reason why they are in school. The fact that when they get education, they can achieve financial freedom.
- The male students need to be counselled as it is discovered that they involve in gambling activities more than their female counterparts.
- Students need to be exposed to the dangers of psychological issues such as anxiety and mental health issues.

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CHAPTER

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GLOBALISATION AND FINANCIAL INTEGRATIONS IN ECOWAS¹

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Abstract

Financial integration of markets in Economic Community of West African States (ECOWAS) has become pertinent in order to facilitate the interconnection with the world's capital market and global financial systems. This is mainly due to the increasing demand and supply of capital by companies on a borderless basis and also the rapid technological advancement (in Internet, e-business and wireless technology) brought about by globalisation. The paper models the link between financial integration and globalisation in the ECOWAS member countries, as well as the channels through which globalisation has affected the financial sector in ECOWAS. In line with this, the study examines the data for these variables used in this study for the period 1981-2016, and employed the panel or Pooled Mean Group or Panel Auto Regressive Distributed Lagged (PARDL) model. The results obtained in this study show that globalisation has a positive and significant impact on financial integration in the ECOWAS countries. The study recommends a restructuring of financial institutions meted out in the ECOWAS, an overall reduction in interest rates so as to attract more foreign investment into the region, an increase in the level of technological investment, as well as an enabling social and economic environment put in place by the government in order to encourage more financial inflows and in turn promote economic growth and development.

Keywords: Finance, Financial institutions, Globalisation, ECOWAS
JEL Classification: F6, G2, O1

¹ ECOWAS-Economic Community of West African States.

1. Introduction

The interconnection and expansion of world economies especially in terms of trade, production and finance has been brought about by globalisation. Globalisation is the process in which people, ideas, goods and services spread throughout the world, spurring increasing interactions and integration between global cultures, governments and economies.

Most African developing countries have embraced this phenomenon with the broader concept of achieving stabilisation and economic growth through the integration of their real and financial sectors. In order to achieve this, various Regional Economic Communities (REC) have been formed, one of such RECs being the Economic Community of West African States (ECOWAS), with one of its core goals being the achievement of financial integration amongst member states.

Financial integration is the process through which financial markets in an economy become closely linked with the rest of the world and is achieved when there is a perfect mobility of financial assets across the national boundaries of member States of a regional economic community. As a prerequisite to this, financial markets in Africa and most developing countries have undergone significant and gradual reforms since the late 1980's in their bid to integrate and interconnect with the world's capital market and global financial system. These reforms were embarked upon in order to increase trade and investment flows, and they include financial market liberalisation, privatisation, technical modernisation, improvements in internal and external monitoring mechanisms, revisions of investment codes to enhance foreign participation, and implementation of various institutional and regulatory changes. The international competitiveness brought by the emergence of globalisation was also a decisive factor in carrying out these reforms.

The challenges posed by a globally integrated financial system and the ensuing need for higher international coordination was well recognised in the region. As such, in its bid to achieve financial integration in the wave of globalisation, the ECOWAS has adopted and implemented various committees to oversee the successful integration of the financial system of its member states. The financial system of a country, which also comprises the foreign exchange market,

determines how strong a country's currency is in comparison to the currencies of other countries and the monetary policies used by the Central Bank of any economy. Thus, globalisation has enabled the economies of the ECOWAS to enjoy foreign direct investment into member countries. Official statistics suggest that foreign direct investment inflows to the region have substantially improved in the last decade and portfolio equity flows have slowly emerged over the years, although aggregate private capital flows have not outpaced development assistance flows (Senbet and Otchere, 2006). To this end, this study focuses on financial globalisation as a link to financial integration. This paper therefore attempts to fill the void in finance literature by investigating the long and the short run relationship between financial integration and globalisation in ECOWAS.

2. Literature Review

2.1 Theoretical Review

There are various theories on the link between globalisation and financial integration. This study will focus on Comparative Advantage, Convergence and Divergence, and Porter's theories.

2.1.1 Comparative Advantage Theory (Comparative Cost Principle)

The theory of comparative advantage as propounded by David Ricardo states that countries should produce goods that they can manufacture most efficiently and buy the goods that they produce less efficiently. According to Ricardo a country should specialise in producing and exporting only those goods and services which it can produce more efficiently, that is, at lower opportunity cost than other goods and services which it should import.

This theory results from differences in geographical conditions, efficiency of labour, climate and natural resources, amongst nations which leads to the ability of a country to produce certain commodities at a lower cost compared to others. The tenet of comparative trade theory is particularly significant in international trade, suggesting that countries should specialise in areas in which they have a comparative advantage and least production cost. Thus, with international specialisation, each nation concentrates on the manufacturing of products in

which it has the maximum comparative advantage and the least comparative cost (Akeem, 2011).

2.1.2 Theory of Convergence and Divergence

The theories of convergence, also known as the ‘catch up effect’, hinges on the fact that as nations develop, there is a tendency to develop traits of other developed nations. The same societal pattern of industrialisation emerges as developing nations embrace the cultural norms, communication and technology of developed nations. Barro and Sala-Martin (2004) state that convergence is observed when economies are converging to the same level of steady state, as well as diminishing disparities as countries with lower income per capita are catching up automatically. This has become increasingly apparent with the emergence of the Internet as a major social and economic phenomenon that began in the 1990s, which came about as a result of globalisation.

The theories of divergence on the other hand, propound that there is a heterogeneous economic landscape within the integration area with different factor returns between central and peripheral areas. McDonald and Dearden (2005) state that this leads to the migration of mobile factors from “poorer” to “richer” areas, which is expected to increase disparities between countries even further. An underlying premise of this theory is that in contemporary organisations, traditional national boundaries mean less and intercultural communication becomes more central and important. Metaphors associated with divergence theories often emphasise the energy, creativity and options enabled by allowing differences to flourish in a global workplace, for example, the global marketplace (Contractor 2002; Gannon, 2001;)

Divergence theories identify key dimensions of cultural variability such as power distance. Many researchers in organisation behaviour, management and communication rely heavily on these theories to explain how managers can create cultural synergy, improve work satisfaction, facilitate team effectiveness and manage differences (e.g. Badz, 1993; Harris & Moran, 1999; Stage, 1999) in workplaces that are increasingly multicultural and dispersed across time and space.

2.1.3 The Porter's Theory

Porter's theory throws light on the competitive advantage of nations international trade and production, due to the availability of certain factor inputs, with major focus on individual firms and industries, and the influence of government in improving a country's position globally. Porter's theory emphasises that there should be strategies in place to evaluate and compare the competitive performance of firms domestically and internationally to enhance a nation's competitive advantage. J.A.Omojolaibi *et al.*, (2016) explains that any nation that integrates with the world should also have the ability to absorb any negativity from such integration. This means that such negative effects would not be pronounced in the receiving economy.

Porter's theory of competitive advantage suggests that the patterns of trade are influenced by four attributes which include: factor endowments; domestic demand conditions; the presence of related and supporting industries; and firms' strategy, structure and rivalry. Emphasis on this study will be on the factor endowments and domestic demand conditions. The factor endowments are the inputs which broadly affect competition and Porter divided these factors into four: human resources, natural resources, knowledge resources, capital resources and infrastructure. The influence of these factors on the level of competitiveness is determined by the systematic deployment of these factors efficiently and effectively in the industry.

The decision of firms on what to produce is determined by the demand conditions of the buyers which in turn influence the competitive advantage of firms. The composition of these influences include: demand size and pattern of growth, home demand composition and internalisation of domestic demand. The Porter's theory is of industrial and commercial relevance in today's evolving and fast paced business environment, which is spurred by advances in globalisation and technology.

2.2 Empirical Review

There exists a plethora of related studies, but not many studies have been carried out on the nexus between financial integration and globalization. Some of these related studies include; Afzal (2007) analysed the effect of globalisation on economic growth in Pakistan, using trade openness and financial integration,

for the period 1960 to 2006. It was observed in the study that a long run equilibrium relationship exists between trade openness, financial integration and economic growth. The study suggests that the concurrent stimulation of public sector investment and private sector investment in the economy, as well as the implementation of sound policies will inevitably increase the benefit of globalisation on the economy as a whole.

Osada and Saito (2007) examined the economic impact of financial integration using a broad sample of 83 countries and data over the period 1974-2007. They concluded that the impact of financial integration on economic growth is dependent on the type of external assets and liabilities, together with the characteristics of the recipient countries. They concluded that many African countries have adopted liberal financial and trade policies to encourage higher investment and improve finance service delivery to both consumers and investors, which was brought about as a direct result of monetary and financial integration.

Omojolaibi *et al.*, (2016) examined the effects of globalisation and financial development in Nigeria using financial repression hypothesis, based on annual data set for the period 1987 to 2014. It was observed in the study that there exists a strong positive relationship between financial development and globalisation in Nigeria. It therefore, called for the creation of an enabling environment for financial institutions to operate by encouraging the operation of small and medium scale institutions in order to improve the standard of living of people living in the economy. The study also called for a critical look into the depreciation of the naira vis-à-vis other foreign currencies in order to enhance the performance of the financial sector, with the central bank setting up target on interest in order to stimulate domestic investment and encourage the flow of more foreign investment.

Klein and Olivei (2008) examined the impact of financial integration on economic performance using pooled time series and cross-section data for the period 1986-1995. Their results show that financial integration positively affects the GDP growth rate in countries with more open capital accounts, as opposed to those with closed capital accounts.

Stiglitz (2001) in his study, “globalisation and its discontents”, using data gathered from the United Nation Data Report, stated that globalisation has large potentials for the world economy and can be of huge benefit to underdeveloped countries and even act as a viable plan for the development of underdeveloped economies of the world. He suggested various reforms of the international, economic and financial institutions as well as a fundamental transformation of the governance processes as necessary conditions for a positive impact of globalisation on the development process of underdeveloped countries.

Rajmund *et al.*, (2015) examined the relationship between international financial integration and output fluctuation by conducting an analysis on a large sample of developed and developing countries over the past 40 years. They followed the approach employed by Kose *et al.*, (2003) and used cross-sectional median of financial liberalisation to subdivide developing economies into two groups: more financially liberalised (MFL) and less financially liberalised (LFL) economies. Their results indicated that, while the volatility of output growth rates experienced a decreasing trend over time, financial integration had a significant contribution to output fluctuations. However, the relationship was stronger in developing countries.

Garcia (2012) focused on the relationship between financial globalisation and financial development in transition economies and concluded that financial globalisation positively and significantly enhanced the growth process of financial system in these countries. However, the reverse was the case when the overall development process of the financial system was put into consideration. It thus implies that financial globalisation did not result into a better performance of the basic financial system in these transitions economies.

Mougani (2012) provided an empirical analysis of some of the impacts of international financial integration on economic activity and macro-economic volatility in African countries. The results showed that, the impact of external capital flows on growth seems to depend mainly on the initial conditions and policies implemented to stabilise foreign investment, increase domestic investment, productivity and trade, develop the domestic financial system, expand trade openness and other actions aimed at stimulating growth and reducing poverty.

Adebite and Adetiloye (2013) investigated the relationship between financial globalisation and domestic private investment with Nigeria as the focus. In their study for the period 1970 to 2007, the results showed that the effect of financial globalisation was marginal in the economy. They recommended a greater need for autonomous investment to crowd in other investments by implementing policies that encourage investment in the economy, and pointed out that the situation may not improve until there is a proactive and deliberate action from the government to improve investment, with focus on putting appropriate infrastructure in the economy.

Leitao (2012) analysed the connection between economic growth, globalisation and trade in the U.S.A between the years 1995 and 2008, using exogenous and endogenous models of economic growth. The study which employed a dynamic panel analysis focused on three dimensions which include economic, social and political and observed that intra-industry trade has a positive and significant impact on economic growth. It thus concluded that Foreign Direct Investment (FDI) positively influences economic growth.

Rahman and Sahari (2017) examined the nexus between financial integration and the real economy in ASEAN + 3 economies based on the concept of Solow-Growth Model. The study was segmented between two periods; before and after the financial cooperation agreement. It was discovered in the study that majority of the real economic sectors were significantly influenced by financial integration during the post-agreement period in which financial markets improved the degree of relationship. It strongly recommended that financial integration should be developed further to strengthen the real economy by the relaxation of country-specific barriers on capital markets so that the intra-regional capital flows smoothly. It also suggests that the high income economies of ASEAN+3 should play the key role of integrating the other low-income economies by providing technical and physical assistance to these economies.

3. Theoretical Framework and Methodology

3.1 The Theoretical Framework

The theoretical construct of this study is based on Robert Solow neoclassical growth theory (1956) an extension of the Harrod-Domar classical growth theory. This theory discarded some of the assumptions of the Harrod-Domar model and proffered explanations on long-run economic growth with particular emphasis on capital accumulation, technical and technological progress. Solow predicted that in the long-run, economies converge to their steady state equilibrium and also permanent growth can be attained only through technological progress. This is against the international trade theories of Adam Smith (Absolute Advantage theory); David Ricardo (Comparative Cost Advantage) and Hecksher-Ohlin's Factor-Endowment theory, which all lay emphasis on the differences in factor endowment from one country to another, without taking into consideration the rate of changes in technology level, which exogenously affects a country's productivity level. This theory advocated that Gross Domestic Product or output is a function of capital and labour which was the premises for international trade theory. The differences in the national endowments of both capital and labour units in terms of quantity and quality among countries of the world necessitated for international trade theory. However, the present era of globalisation was captured from the Solow's growth equation, which was represented by imbibing an exogenously determined factor known as Technology (Ahuja, 2012)

3.2 The Model Specification

The incorporation of technological progress into the theoretical framework, helped to explain the sustained increases in the standard of living globally, and this has facilitated globalisation worldwide. Therefore, from Solow's neoclassical growth theory, the following functional relationship is specified.

$$\text{GLOB} = f(\text{NFF}, \text{EXR}, \text{INT}, \text{FDI}, \text{GCF}) \quad (3.1)$$

Where GLOB is globalization (which uses Openness as a proxy), NFF is Net Financial Flows, EXR is Exchange Rate, INT is Interest Rate, FDI is Foreign Direct Investment inflows and GCF is Gross Fixed Capital Formation.

The log form of the equation (1) above is specified as follows;

$$\text{LogGlob}_{it} = \beta_0 + \beta_1 \text{LogNFF}_{it} + \beta_2 \text{LogEXR}_{it} + \beta_3 \text{LogINT}_{it} + \beta_4 \text{LogFDI}_{it} + \beta_5 \text{LogGCF}_{it} + \varepsilon_{it} \quad (3.2)$$

According to the economic priori of the signs of parameters, it is expected that: $\beta_1 > 0$, $\beta_2 > 0$, $\beta_3 > 0$, $\beta_4 > / < 0$ and $\beta_5 > / < 0$.

This study utilised annual time series data of the selected macroeconomics indicators of 15 West African States from 1981 to 2016. The data on the variables of the model were sourced from the ECOWAS bulletins and publications; World Development Indicators (WDI, 2017).

4. Empirical Result

This section gives the data presentation of our empirical analysis on the impact of globalisation on financial integration making use of both descriptive and econometric analysis with a further discussion and comparison of the result with previous findings. The study made use of openness as a proxy for globalisation in ECOWAS.

4.1 Pre-Diagnostics Tests

Table 1: Summary of Descriptive Statistics

	OPN	NFF	EXR	INT	FDI	GCF
Mean	4.247757	1.389514	6.603395	1.089409	2.837509	20.76730
Median	4.199139	1.152015	6.205117	0.847726	2.855980	21.02871
Maximum	5.740935	4.493970	21.09788	4.566312	3.078649	25.16107
Minimum	3.050426	0.045339	0.056246	0.001224	2.017378	14.23670
Std. Dev.	0.439400	0.957501	3.935363	1.032534	0.151139	1.957459
Skewness	0.773574	0.728930	2.086258	1.916791	-1.4872	-0.1967
Kurtosis	4.808697	2.973620	8.441094	6.516194	8.290130	3.273899
Jarque-Bera	49.56919	18.60293	411.3847	236.7748	322.2796	2.010929
Probability	0.000000	0.000091	0.000000	0.000000	0.000000	0.365875
Sum	892.0289	291.7980	1386.713	228.7758	595.8769	4361.133
Sum Sq. Dev.	40.35217	191.6127	3236.800	222.8203	4.774192	800.8137
Observations	210	210	210	210	210	210

Source: Author's computation, 2018

The analysis in Table 1 shows that the mean and the median lie within their maximum and minimum values, Also, results presented in Table 1 indicate that all the mean values of all variables used were reported to be positive which implies an increasing trend for most periods of the years being studied. The skewness statistic showed that openness (OPN), net financial flow (NFF), exchange rate (EXR) and interest rate (INT) were positively skewed while foreign direct investment (FDI) and gross capital formation (GCF) were negatively skewed. The kurtosis values of openness (OPN), exchange rate (EXR), interest rate (INT), and foreign direct investment (FDI) which have their values to be above the normal distribution point of 3, indicates that variables are leptokurtic. Also, the Jarque-Bera probability of openness (OPN), net financial flow (NFF), exchange rate (EXR), interest rate (INT) and foreign direct investment (FDI) which are all less than the 5% level of significance ($P < 0.05$) further reveals a statistically significant deviation of these variables from normality.

4.2 Panel Unit Root Test

This study carried out the Panel unit root tests by Levin *et al.*, (2002) test and the Im *et al* (2003) test are being used intensively in panel studies. While the Levin, Lin and Chu (LLC) The LLC test assumes that residuals are independently and identically distributed with mean zero and variance σ_u^2 and $\rho_i = \rho$ for all values of i. which means that all series in the panel have a unit root, whereas the alternative $H_i : \rho = 1$ which means that all series in the panel have a unit root, whereas the alternative $H_1: \rho < 1$ means that all series are stationary.

Table 2: Panel Unit Root Test

METHOD/ VARIABLE	OPEN	NFF	EXR	INT	FDI	GCF
LLC	-5.09343 (0.0000)*	-2.36982 (0.0089)*	-6.11264 (0.0000)*	-5.70367 (0.0000)*	-5.32578 (0.0000)*	-2.23817 (0.0126)*
IPS	-4.25827 (0.0000)*	-3.00595 (0.0013)*	-4.22148 (0.0000)*	-6.07997 (0.0000)*	-2.23413 (0.0127)*	-4.06188 (0.0000)*
ADF-Fisher Chi Square	66.6267 (0.0001)	55.2791 (0.0016)*	65.5776 (0.0001)*	89.3803 (0.0000)*	51.3978 (0.0045)*	65.9662 (0.0001)*
PP-Fisher Chi Square	124.251 (0.0000)*	101.885 (0.0000)*	99.3747 (0.0000)*	170.978 (0.0000)*	52.6151 (0.0033)*	135.766 (0.0000)*

Source: Author's computation, 2018

Where: LLC= Levin, Lin and Chu (2002), IPS = Im, Peseran and Shin (2003).

The asterisks (*) denotes the rejection of the null hypothesis at 5% significance level, while the figures in brackets represent the Probabilities. While net financial flows (NFF) and foreign direct investment (FDI) are stationary at levels, other variables are stationary at first difference.

Having established the stationarity of the variables at either levels or first difference using 5% level of significance, we can therefore reject the null hypothesis that there is unit root while we accept the alternative that there is no unit root.

4.3 Panel Cointegration Test

Following the establishment of the stationarity of the variables at first difference and at levels I(1) and I(0), the study proceeds to test whether there is a long run or short run relationship among the variables. The Pedroni (2004) heterogeneous panel cointegration test is used. The results for the seven different panel test statistics suggested by Pedroni are reported in Table 3.

Table 3: Pedroni Residual Cointegration Test Result

Series: OPN NFF EXR INT FDI GCF

Null Hypothesis: No cointegration

Newey-West automatic bandwidth selection and Bartlett kernel

Alternative hypothesis: Common AR coefs. (within-dimension)				
	Statistic	Prob.	Weighted Statistic	Prob.
Panel v-Statistic	-1.540065	0.9382	-0.981527	0.0368
Panel rho-Statistic	3.591495	0.0998	3.150510	0.9992
Panel PP-Statistic	0.117132	0.5466	-1.930441	0.0268
Panel ADF-Statistic	-2.223875	0.0131	-0.055492	0.0779
	Statistic	Prob.		
Group rho-Statistic	4.554601	1.0000		
Group PP-Statistic	-3.692418	0.0001		
Group ADF-Statistic	0.464776	0.0790		

Source: Author's computation, 2018

The result above shows that out of the 11 results shown, 6 of them shows significance, which implies that there is cointegration among the variables of the study. This further implies that there is a long run relationship among the variables of the model.

Table 4: Panel ARDL Results

Dependent Variable: D(OPN)
 Method: ARDL
 Date: 09/14/18 Time: 06:09
 Sample: 2004 2016
 Included observations: 182
 Maximum dependent lags: 2 (Automatic selection)
 Model selection method: Akaike info criterion (AIC)
 Dynamic regressors (1 lag, automatic): NFF EXR INT FDI GCF
 Fixed regressors: C
 Number of models evaluated: 2
 Selected Model: ARDL(2, 1, 1, 1, 1)
 Note: final equation sample is larger than selection sample

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
Long Run Equation				
NFF	0.029062	0.016622	1.748402	0.0837
EXR	-0.057876	0.092118	-0.628278	0.5314
INT	-0.043939	0.025402	-1.729722	0.0870
FDI	0.085910	0.180434	0.476133	0.0351
GCF	0.186904	0.024526	7.620555	0.0000
Short Run Equation				
COINTEQ01	-0.305248	0.104985	-2.907537	0.0046
D(OPN(-1))	-0.022597	0.112425	-0.200993	0.8411
D(NFF)	0.008122	0.040137	0.202361	0.8401
D(EXR)	0.040615	0.286032	0.141995	0.8874
D(INT)	-0.614006	0.476276	-1.289181	0.2005
D(FDI)	1.993782	2.339397	0.852263	0.3963
D(GCF)	0.038877	0.132075	0.294356	0.7691
C	0.332392	0.112502	2.954542	0.0040
Mean dependent var	0.001390	S.D. dependent var	0.175664	
S.E. of regression	0.108737	Akaike info criterion	-1.400406	
Sum squared resid	1.099604	Schwarz criterion	0.464411	
Log likelihood	264.0426	Hannan-Quinn criter.	-0.646530	

*Note: p-values and any subsequent tests do not account for model selection.

4.4 Short Run Coefficient

The result shows the speed of adjustment, COINTEQ01 or the error correction model lag one, ECM (-1). It is required that it is significant and the coefficient is negative and less than one. The result implies that any disequilibrium in the short run will be corrected back in the long run at the speed of 31%. Furthermore, other variables do not show significant relationship with globalisation in the short run.

4.5 Long Run Results and Interpretation

Considering a 10% level of significant due to the nature of the Nigerian data, it can be seen from the above table on the long run result that Net Financial Flows (NFF) has a positive and a statistically significant impact on globalisation or openness (OPN) in West Africa. The result shows that a 1% increase in the level of financial integration will lead to 0.02% in the level of globalisation in West Africa.

The result also shows that interest rate (INT) has a negative impact on the level of globalisation. The relationship is significant. The result also shows that a 1% increase in the level of interest rate will lead to 0.04% reduction in the level of globalisation in ECOWAS countries.

The result also shows that foreign direct investment (FDI) has a positive and a statistically significant impact on the level of globalisation in the ECOWAS countries. The result implies that a 1% increase in the growth of foreign direct investment inflow will lead to 0.08% growth in the level of globalisation in the ECOWAS countries.

The result on gross fixed capital formation (GCF) shows it has a statistical and a positive relationship with the level of globalisation in the ECOWAS countries. The result suggests that a 1% increase in the level of gross fixed capital formation or investment will lead to 0.18% growth in the level of globalisation in the ECOWAS member countries.

5. Conclusion

The results of this research have established that there exists a positive relationship between financial integration and the level of globalisation in

ECOWAS countries. The influx of Foreign Direct Investment and technological advancement has helped to facilitate the progress made thus far. Although much still needs to be done in order for the ECOWAS to be at par with other established regional blocs. This can be achieved by promoting sound financial institutions to ease the level of capital movements across borders. One of the means for realising this objective is for member States to pool their resources by integrating their financial systems as well as promoting prudent financial regulations and supervisions, essential to maintaining the capital market and the financial sector stability and growth.

Also, to facilitate the financial integration process towards the realisation of a higher standard of living for ECOWAS countries, there is the need for accelerated growth through increased investment opportunities. This can be achieved by a general reduction in interest rate which will stimulate investment levels and in turn promote globalisation. To buttress this, this study strongly recommends that governments should provide an enabling social and economic environment to facilitate growth and economic development in the ECOWAS.

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APPENDIX

The figure below is a test on the normality of the model of the study. The decision rule is that the model is said to be normal when the result on the test is not significance as we therefore accept the null hypothesis on the test that the model is normal.

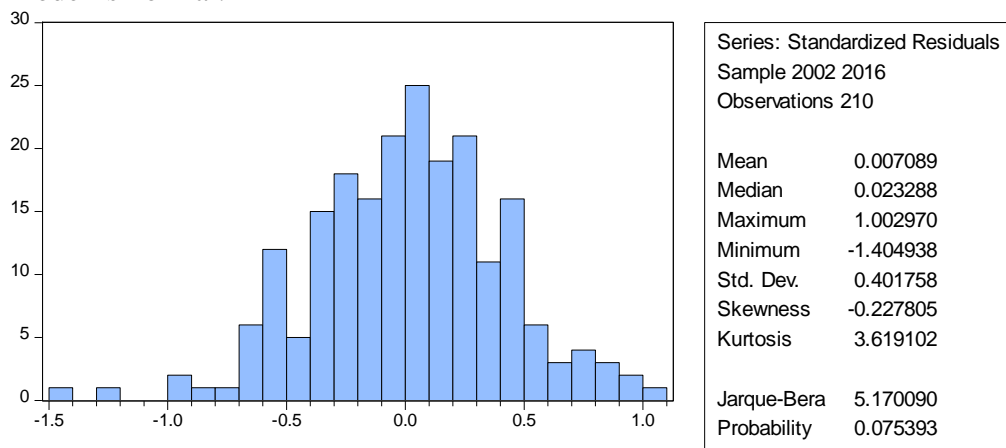


Figure 1: Normality Test for Model

Source: Authors' computation, 2018

CHAPTER

38

AN EVALUATION OF THE LOCATIONS OF INTERCITY PASSENGER BUS TERMINALS IN METROPOLITAN LAGOS

Ege, Enyeribe Emmanuel

Abstract

This study looks at the development of transport which has been recognised by many as a tool for national development and growth. Over the years, the government has been involved in the construction of inter-city roads without taking into consideration the construction of bus terminals in the cities. This has led to an unguided location of terminals by inter-city bus owners. The methodology adopted a survey of the zones in which the luxury bus terminals are located. The major socio-economic characteristics were identified. These include: market, major road artery, railway terminal, high density residential area, etc. Delays along the terminals were measured by the use of stop-watch. This was carried out at the eight terminals for four days and the average taken. The annual cost to the nation, assuming that the above calculated loss is constant and it is continuous for the 14 hours of study per day throughout the year in a 50m length along each terminal, was Seventy-five billion, three hundred and fifty seven million, three hundred and sixty-five thousand, six hundred and seventy eight naira (75,357,365,678.40 “per working year” for 26 working days in a month. The spatial pattern showed clustering.

Key Words: Delay, Terminal, Inter-City

1.0 Introduction

Transport is a basic and essential requirement in every society. It facilitates the movement of people and goods from one area to another. One direct consequence and measure of economic development is the level of interaction among urban centres within a region.

In the early years of urban development in Nigeria, lorries and trucks were mainly used in the movement of passengers and freight. The use of luxury buses for passenger movement is a recent development and the growth has been phenomenal. Rail and water have been neglected for so long that the road is now riddled with congestion, confusion and pollution. According to Filani(1987), one of the major defects of Nigeria's transport development from the colonial period to the present has been its inadequate inter-linkages and inter-modal connections and their limited integration into the country's total space economy. Up till now a significant proportion of all investments in the transport sector both at the federal and state levels, has been concentrated on the development of urban-to-urban linkages. The emphasis today is on the use of buses for long distance linkages.

The provision of transport facilities and services is crucial to the economic, political, social and cultural life of a nation (Oni, 1992). This provision must be in accordance with standards in order to ensure a harmonious flow of traffic. It is pathetic to note that in many developing countries, Nigeria inclusive, transport facilities are anything but adequate. The importance of transport facilities in the economic growth and development of any nation cannot be over emphasised. In any well planned economy, basic transport facilities must be in place for effective movements. These essentials include networks, terminals, interchange points, motive power, mobile facilities, operators, management and control and supportive services (Onakomaiya, 1988; Faulks, 1965). One major characteristic of most Nigerian cities is the increasing inadequacy of infrastructural facilities, particularly transport infrastructures. One of these basic infrastructures is the Luxury Bus terminals which are located in the central areas of the cities. The current geographic distribution of terminals in Nigerian cities, the amount of site space occupied by these terminals and constraints imposed on them by the physical characteristics of sites form areas of interest to be studied.

At the moment, there are about one hundred and twenty registered companies that operate luxury bus system of transport and their fleet sizes range from 5 – 300 buses per company. About 187 buses leave Lagos everyday with about 8,415 passengers and about the same number enter it. Pegrum (1968) states that terminals are an integral and vital part of both inter-city and urban transportation. The present locations of the terminals of these buses are in the heart of the metropolis and in their bid to get to their terminals, they increase the volume of vehicular traffic on the road thereby causing congestion. Bottlenecks are synonymous with bus terminal locations since they maneuver on the service lane in order to park. Traffic flow is constantly halted because of this maneuvering pattern of the bus drivers. The wrongly parked vehicles which bring passengers to the bus stations also cause congestion. The crux of the matter is that these terminals were not set up in accordance with standards in advanced countries such as the USA, Canada, United Kingdom, etc., and they are, in many cases, wrongly located. Unfortunately, in Nigeria, adequate attention has not been paid to the inter-city bus terminal. In advanced economies, inter-city terminals are accorded the same attention given to terminals of the other modes of transport. The Victoria Station in London is a good example and the Central Bus Terminal in Johannesburg, South Africa is another one. There is also Greyhound Bus Terminals in the US and the Central Canadian Greyhound Lines Terminal in Canada.

It is a known fact that patterns of interaction in cities have both spatial and temporal dimensions. According to Ayeni (1982), the spatial component deals with the variations in trips attracted and generated in different parts of the city while the temporal dimension examines the flow of traffic over time period. The most important attributes of the temporal dimension of the pattern of interaction in cities emerge from regularities in trip volumes that are observed at specific periods of the day. The striking feature of the bus operations (departure and arrival) periods coincide with peak periods in a congested city such as Lagos. A number of writers have advanced theories as to why traffic jam occurs and prominent among them are: ineffective management of the road corridors, nonchalant attitude of users; and the lack of adequate traffic flow and control mechanism in cities (Robinson, 1971; Smerk, 1968; Khanna, 1980; Ferguson, 1989; Deakin, 1988) In Nigeria, it was observed that traffic congestion occurs because the roads are narrow criss-crossed with many

intersections in some cities. In addition, there is an abysmal disregard to traffic regulations by a majority of motorists and other road users. Other problem areas identified are; inadequate road traffic control devices and dominance of private automobiles on urban roads (Okpala, 1981; Jakpa, 1977). Blunden (1971) indicates that one of the important objectives of planning a land use/transport system is to ensure that there is an efficient balance between land use potential and transport capability. Filani (1987) noted that a nation's or state's transportation planning goal should strive towards developing a transport system which would provide optimum capability for the movement of people and commodities in the most efficient, time-effective, convenient, safe, reliable and cost-effective manner consistent with the social, economic and environmental interests of the people.

This work is tailored towards the evaluation of the locational pattern of luxury bus terminals and their contribution to delays. Many works have been done in this area but the emphasis has been in different dimensions. The work of Ogunsanya (1983) on the contribution of freight vehicles to urban traffic delays in Lagos is one of the outstanding works. Other works have been tailored towards the issue of intra passenger movements and these include Transpoconsults, 1976 and Adedimila, 1977.

1.1 Statement of Research Problem

Adequate provision of transport infrastructure with specific reference to the route-way, the terminal, the carriage, the motive power and the operators are ingredients for a good transport system.

In Lagos, the zoning of land use facilities, are not strictly adhered to. This is the reason why markets overflow unto the roads and little is being done to check it. Terminals and garages occupy parts of the road and it is seen as a normal phenomenon. The case of these terminals located in such places as Jibowu, Alafia and Maza-Maza which are residential areas should have necessitated their absorption into the residential environment with a defined land space properly delimited and vegetational sound barriers set up to absorb the noise associated with terminal activities.

Baseline studies are not usually carried out extensively before a facility is sited. This is particularly obvious in luxury bus terminal location. The present locations of luxury bus terminals in metropolitan Lagos reflect poor planning. The general public suffers so much due to their present locations. Delays and congestion characterise many of the roads in the metropolis where they are located. Even though the variables contributing to these problems are diverse, the contribution of luxury buses is yet to be evaluated and ascertained.

The activities of these luxury bus terminals overflow into the service lanes of the carriageways because of lack of space and the resultant effect is congestion and delay. This situation has deteriorated the livable conditions of the neighbourhood in which these terminals are located.

These luxury bus terminals are scattered all over the metropolis – starting from Iddo, Oyingbo, Jibowu, Alafia, Oshodi, Maza-Maza/First Gate to Alaba International. The ones that are exclusively associated with delay are Maza-Maza/First Gate, Oshodi, Jibowu, Alafia, etc. With this background, the present study tries to fill an existing gap by examining the contribution of luxury bus firms' locations to congestion.

1.3 Aim and Objectives

The aim of this work is to evaluate the locational pattern of inter-city luxury bus firms in metropolitan Lagos, and the implications of delay on the urban environment.

The specific objectives of the study include:

1. Investigation of the socio-economic characteristics of a particular zone -: whether the firms were attracted by the presence of market, major road artery, high density residential area and higher institutions.
2. Evaluation of the contribution of luxury buses to delays around their terminals in relation to other vehicles.
3. Investigation of the luxury bus firms' locational spread in metropolitan Lagos, whether they are randomly located, regular or clustered.

2.0 The Study Area

The study focuses on metropolitan Lagos which is as shown in Figure 1. As a port town and a major industrial centre in Nigeria, it has a high attracting force on the population from the hinterland. In fact, metropolitan Lagos has become a focal point for regional, national and international trade. It is also served by a network of roads often congested, rail (not being fully utilised), ocean and air transport. As a megalopolis which has a population of more than 8 million, efficient movement of traffic is essential to the continuing functioning of the area. This efficiency could be hindered through an inadequate understanding of the basic characteristics and pattern of urban traffic flow and terminal locations. Metropolitan Lagos lies within latitudes 6° 23' N and 6° 41' N and longitudes 3° 09' E and 3° 28' E. Lagos lagoon bounds this area to the east and to the south, is the Atlantic Ocean. Lagos metropolis is heavily motorised when compared with other cities in Nigeria. According to LAMATA, (2003) almost all movements within the metropolis are made by road while water and rail account for about 4%. The concentration on the road has generated an unprecedented problem on the road for motorists and passengers alike. The major highways are saddled with serious bottlenecks which slow down traffic on a continuous basis and the result is loss of man-hours everyday on Lagos roads. These bottlenecks are worsened by the location of luxury bus terminals along the highways.

On the Badagry Expressway, there are two locations which are Maza-Maza/First Gate and Alafia. On the Ikorodu Road, there are also two which are Jibowu and Ojota New garage. On Agege Motor Road, there is Oshodi terminal and on the Iddo/Oyingbo axis there are Iddo terminal and Oyingbo terminal. Figure 1 shows the locations of different terminals in metropolitan Lagos.

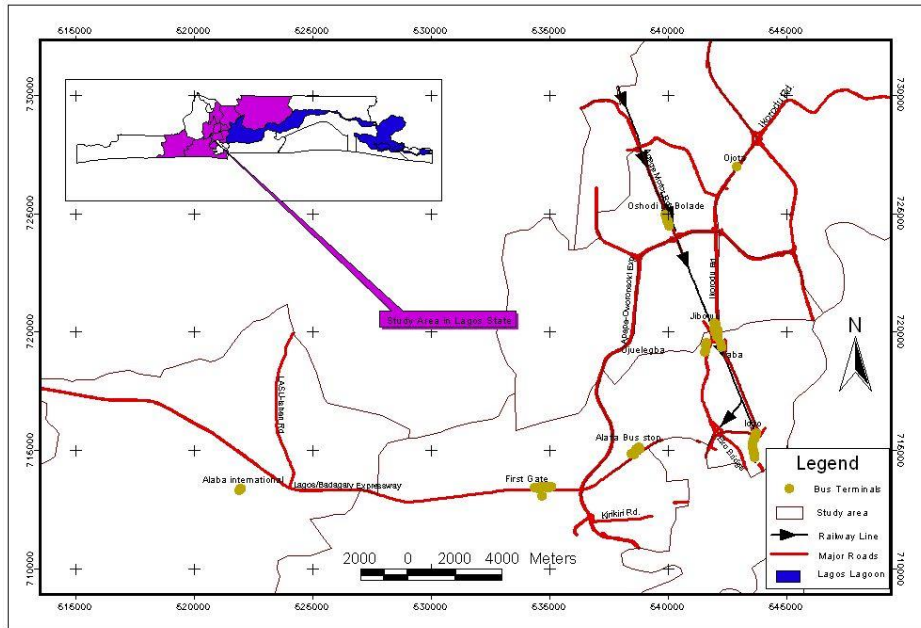


Fig. 1: Study Area Showing Bus Terminals [Source: LABCARS, Dept. of Geography, UNILAG (2007)]

Definition of Terms

The first is “road traffic” – this applies to the movement of persons and goods by various types of vehicles or by persons or animals over a given network of roads.

Delay

Delays can be defined as the time lost by vehicles due to traffic friction and traffic control devices. Two major types of delays can be identified in the literature: the operational delays and the fixed delays. Fixed delays are associated with road intersections.

These delays cannot be added to any vehicle. What this means is that a single vehicle may be held up for some minutes in obedience to the traffic light even if, there are no vehicles, passing from other intersecting roads.

The second type is the operational delays which are caused by other vehicles inefficiencies or ineffectiveness which normally lead to breakdown, accident, parking and manoeuvring problems.

The third term of interest is congestion. Congestion is defined as the cost imposed by one motorist upon others in the traffic stream without any payment being involved. In Nigeria, congestion has been adduced to occur due to narrowness of the roads which are criss-crossed with many intersections and abysmal disregard for traffic regulations by motorists. Other problem areas identified are, inadequate road traffic control devices and dominance of private automobiles on urban roads.

In developed regions of the world, congestion management system is being adopted in order to reduce congestion to the barest minimum. In the United States of America, there is the Transportation Efficiency Act for the 21st Century (TEA 21). Its mission is to emphasise the importance of congestion management system (CMS) as a way to improve the efficiency of, and protect the public investment in the nation's transportation infrastructure.

The CMS is a systematic process that provides information on transportation system performance and alternative strategies to alleviate congestion and enhance, the mobility of persons and goods. A CMS includes methods to monitor and evaluate performance, identify alternative actions, assess and implement cost-effective actions and evaluate the effectiveness of implemented action.

3.0 The Research Methodology

3.1 Questionnaire Administration

A pilot survey of the zones in which the luxury bus terminals are located was conducted. The major socio-economic characteristics were identified. These include: market, major road artery, railway terminal, high density residential area, etc.

3.2 The Operator's Survey

At the individual firm's level, some information was collected through the administration of questionnaire. In the questionnaire, such information that deals with the perceived advantages offered by the zone where the firm is located. The date the firm was established, whether the firm had changed location and if they had, they were asked to give the initial location and the

reason for relocation. Other questions include, fleet size, various types of vehicles owned together with their capacities, the staff strength, the number of branches, in the country, the land area (in square metres) occupied by the firm. In selecting the operators to interview, consideration was given to all operators in a zone. Any operator whose bus is loaded in a particular zone was interviewed in that zone. A total of 106 managers were interviewed at different locations. Table 3.1 shows the distribution of questionnaires according to the number of operators in a particular zone.

The Table 3.2 shows the distribution of some of the operators in the industry. They were picked according to their sizes. The big operators are those who load more than 10 buses in a day. The medium size ones load between 5-9 buses in a day, while small firms load between 1-4. Based on the number of buses loaded by each operator, the number of passengers was evaluated and number of questionnaires allocated to each operator.

Table 3.1: The Distribution of Questionnaires across the Eight Zones to the Operators

ZONES	No. of Questionnaire	%
Jibowu	10	9.4
Oshodi	9	8.5
Alaba International	8	7.5
Maza-Maza/First Gate	22	20.8
Alafia	11	10.4
Iddo/Oyingbo	29	27.4
Ojuelegba	8	7.5
Ojota New Garage	9	8.5
Total	106	100

Note: Total Registered Operators with the Association=120 Operators.

Table 3.2: No of Buses Loaded in a Day and Number of Passengers on Board the Buses

No of Operators	No of Buses Loaded Daily	Average Capacity of the Buses	Passenger vol.	Questionnaire vol.
Chisco	23	45	1035	103
ABC	15	45	675	67
The Young	30	45	1350	135
Ekene Dili	13	45	585	58
Ekeson	7	45	315	35
Ifesinachi	7	45	315	35
Dan Dollars	4	45	180	20
Izu Chukwu	7	45	315	35
C. N. Okoli	4	45	180	20
Mbanefo	3	45	135	15
G. U. O	3	45	135	15
Total	113		5085	530

3.3 Evaluation of Delays

This evaluation was restricted to the terminals. The reason for this is not far-fetched. In the literature, there are two major methods that can be used in collecting traffic delay data. There is the moving-vehicle observer method whereby the test vehicles are put in the traffic stream and required data are recorded by field assistants carried in the vehicles. The problem with this method is that it requires the use of vehicles and many field assistants.

The second method is the one adopted in this study where the vehicles were observed on the road-section of interest. The road-section of our interest is that axis where the terminal is located. This method has been criticised to have a disadvantage that it can only cover a little stretch of road within the view of the observer (Ogunsanya, 1984). In spite of this disadvantage, we had to adopt this method because it is less expensive to use.

In each terminal, a field assistant was positioned to observe and record delays along specified screen line. The observation covers fifty metres from the screen line. The field assistant records any delay with a stop watch as soon as a vehicle causes a delay within the fifty metres range. On the other hand, the traffic light may be responsible for the delay and the number of seconds a vehicle wastes at that junction is recorded with the stop watch. The watch is

stopped as soon as the flow normalises. This was carried out at the eight terminals for four days and the average taken. The terminals are Jibowu, Maza-maza/First Gate, Iddo/Oyingbo, Alafia, Ojota New Garage, Ojuelegba and Ijora.

3.4 Evaluating the Spatial Distribution of Bus Firms in Metropolitan Lagos

The arrangement of points in one dimension along a line seems to explain the distribution of luxury bus firms in different zones. Three basic patterns are recognised in the literature. These are regular, clustered and random.

A test for randomness is conducted.

The total distances between the firm locations is identified as n (total distances n). Each distance is given a position order.

According to Smith (1975), a test of randomness may be conducted as follows using the following formulae:

$$Y = \sum di \dots\dots\dots 1$$

When expressed in the form

$$Y = 1 - \frac{Y}{n} \dots\dots\dots 2$$

This has a normal sampling distribution if n is about 25 or more, with a mean (\tilde{Y}) and standard deviation (S') derived as follows:

$$\frac{\tilde{Y} = n - 1}{2n} \dots\dots\dots 3$$

$$S' = \frac{\sqrt{n - 1}}{12n^2} \dots\dots\dots 4$$

4.0 Results and Discussions

4.1 Determinants of Intra Urban Luxury Bus Firm Location

4.1.1 Responses from the Operators

The questionnaire was administered to 106 operators and the reason the total is more than 106 is because most operators ticked a reason for location more than once.

The factors underlying the pattern of intra-urban luxury bus firm location can be obtained from the responses given by the operators as reasons for their location in their respective zones. Table 4.1 summarises the responses from the operators.

Nearness to a commercial centre was given as the dominant point for those operating from Iddo/Oyingbo (33.8%). This is followed by Oshodi (15.3%) and the others. Generally, this is the most important factor.

Nearness to a major road artery: This is the second most important locational factor. The operators in Maza-Maza/First Gate and those in Jibowu indicated this as their first factor. Maza-Maza/First Gate has 32% and Jibowu 14%. The operators from other zones also recognise this factor (which is also known as accessibility) as a major and important point. The only zone which does not see it to be important from their location is Alaba International Market (see Table 4.1).

Nearness to a high density residential area. The total from Table 6 shows that this factor is the third in the list with the following zones having the highest figures: Maza-Maza/First Gate (26.1%), Oshodi (15.2%) and Alafia (13.0%).

Table 4.1: Perceived Advantages of Inter-Urban Luxury Bus Firm Location

Advantages	Iddo/Oyingbo		Osodi		Jibowu		Maza-Maza		Alafia		Ojota		Alaba		Ojuelegba		Total
	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	
NCC	20	33.8	9	15.3	3	5.1	6	10.2	6	10.2	5	8.5	6	10.2	4	6.7	59
NHD	4	8.7	7	15.2	4	8.7	12	26.1	6	13.1	5	10.9	4	8.7	4	8.6	46
NMR	16	32	7	14	6	12	5	10	6	12	6	12			4	8	50
NHI					4	100											4
ASA	3	9	2	6	7	21.2	9	27.3	5	15.2	3	9.1	2	6.1	2	6.1	33
NCE	6	18.7	6	18.7			7	21.8	6	18.7			3	9.3	4	12.8	32
NRT	13	100															13
GT											9	100					9

Note: 1. The figures show the number of times each operator feels a specific factor contributes in a particular zone

2. Their totals also show their level of importance.

1. Nearness to a commercial centre = NCC 2. Nearness to a high density residential area = NHD 3. Nearness to a major road artery = NMR 4. Nearness to a higher institution of learning = NHI 5. Adequate space availability = ASA 6. Nearness to a concentration of an ethnic group = NCG 7. Nearness to railway terminal = NRT 8. Government policy = GT

4.2 Traffic Delay and Economic Cost

In the literature, references are made concerning the problems involved in evaluating the cost of traffic delays. Ogunsanya (1983) stated that this is because of the various dimensions of such costs, notably cost of fuel, wear and tear of vehicles, cost in time, manpower waste, environmental degradation (noise and carbon monoxide from vehicles), the stress on the driver and the cost of this to his physical make-up among others.

Sada (1972) tried to quantify the cost of traffic hold-ups in Lagos. In his analysis he focused only on two variables-loss of man-hour through loss of time and energy. He estimated the cost to be at ₦1, 500 million pounds a year. Ogunsanya (1983) adopted a different method to estimate the economic cost of traffic delays. He used the cost of chartering a vehicle per day. In this study, we identified five classes of vehicles namely - Car, Mini-bus, Taxi, Luxury bus, and Heavy duty vehicles. Three of these types have different classes. The Mini-bus comprises the 14-seater Kombi bus, the Volkswagen Faragon, LT28, and the coaster. The luxury bus family is made up of 1414, 0362, 0364, 0372, and 0482. The heavy duty vehicle is made up of Tippers, 911, Delivery vans, Tankers, and Trailers. Generally, the average is taken for each class.

Readings in UN-Sustainable Development Goals and the Lagos Region

Heavy Duty Vehicle	=	₦200, 000.00 per vehicle per day
Cars	=	₦25, 000.00 per vehicle per day
Taxi	=	₦20, 000.00 per vehicle per day
Luxury bus	=	₦250, 000.00 per vehicle per day
Mini bus	=	₦80, 000.00 per vehicle per day

In evaluating the cost of charter per hour, consideration is given to the number of hours each vehicle puts in a day. The heavy duty vehicles work for 14 hours (6a.m. -8p.m.) while other vehicles spend about 16 hours (6a.m. - 10p.m.) in a day.

Heavy duty vehicle in working hour	=	₦14000.00 per vehicle/hour
Cars in working hour	=	₦1,562.50 per vehicle/hour
Taxi in working hour	=	₦1,250.00 per vehicle/hour
Luxury bus in working hour	=	₦17,857.14 per vehicle/hour
Mini bus in working hour	=	₦5000.00 per vehicle/hour

Table 4.2: Number of Vehicles Involved by Type at each Screen Line

	Car	Mini-bus	Taxi	Luxury bus	HDV	Total
SL1	25	21	14	23	14	97
SL 2	25	48	15	23	15	126
SL 3	20	42	15	39	70	186
SL 4	19	52	14	24	34	143
SL 5	16	23	14	22	18	93
SL 6	24	22	15	20	16	97
Total	129	208	87	151	167	742

Table 4.2 above shows the total number of vehicles involved at each screen line. The total number of vehicles is 742. In Table 4.3, the second column was derived by adding the total contributions to delay by each vehicle and dividing by 120 secs to convert it to hours.

Table 4.3: Vehicle Types and their Associated Costs

Vehicle Type	Contribution in hours	Cost per hour per vehicle	Total cost per vehicle	Total number of vehicles	Total cost ₦
Car	1.47	N1562.50	.2296.86	129	296294.94
Mini-bus	3.88	N5000.00	19400	208	4035200.00
Taxi	0.36	N1,250.00	450	87	39150.00
Luxury bus	136.45	N17,857.14	2436606.75	151	36792773.25
HDV	85.70	N14,000.00	1199800	167	200366600
Total				742	2,415,30018.20

Table 4.2 above shows the estimated cost because of delay by various categories of vehicles. The average number of vehicles involved in the four-day survey in the sampled areas is 742 and the cost is estimated to be ₦2,415,30018.20

The annual cost to the nation, assuming that the above calculated loss is constant and it is continuous for the 14 hours of study per day throughout the year in a 50m length along each terminal, will be seventy-five billion, three hundred and fifty seven million, three hundred and sixty-five thousand, six hundred and seventy eight naira (75,357,365,678.40) “per working year” for 26 working days in a month.

4.3 Explanation of the Spatial Pattern of Luxury Bus Firms in Metropolitan Lagos

The arrangements of points in one dimension along a line seem to explain the distribution of luxury bus firms in different zones. Three basic patterns are recognised in the literature. These are regular, clustered and random. A regular occurrence is where the intervals between points are similar; a clustered arrangement is where they appear in bunches separated by gaps; a random pattern is one in which the spacing could have been determined by chance.

A test for randomness is conducted.

The total distances between the firm locations is identified as n (total distances n). Each distance is given a position order.

At the moment the luxury bus firms are scattered all over Lagos metropolis. Areas of concentration coincide with those of commercial/residential activities. Looking at Iddo/Oyingbo axis, this area is a major centre for commerce and a rail terminal. In the early years of luxury bus firm development in Lagos, Iddo terminal was a major focal point between rail and road.

Most of the bus firms had to locate along Iddo/Oyingbo axis because of the closeness of this area to the Central Business District (CBD) of Lagos especially for traders coming from the Eastern and Northern parts of the country.

According to Smith (1975), a test of randomness may be conducted as follows using the following formulae stated under methodology (equations 1-4)

In the analysis below, the origin is defined towards the direction of traffic movement. In other words, the origin for Jibowu (1) is defined from the southern part of Ikorodu Road which is at its intersection with Herbert Macaulay to the northern part. On the opposite direction, it is from the northern part to the southern part.

The null hypothesis is that the spacing of luxury bus firms along the road is not different from random.

Firms' locations from the southern part i.e. Ikorodu road intersection with Herbert Macaulay.

$$\begin{aligned} \tilde{Y} &= n-1 \\ \tilde{Y} &= \frac{2n}{8-1} \\ &= \frac{8 \times 2}{8-1} \\ &= 0.44 \\ \tilde{Y} &= 1 - Y/n = 1 - 1.44/8 \\ &= 1 - 0.18 \\ &= 0.82 \end{aligned}$$

At one end of the scale is \tilde{Y} or 0.44

This represents a random pattern. Normally as the figure increases so does the tendency towards a regular or clustered arrangement. In this case where $Y' = 0.82$, shows clustering.

From the answer above we would accept the alternate hypothesis which says that the arrangement is non-random.

For the opposite directional flow, the origin is before the ramp towards Yaba (i.e. from the north towards the south of Jibowu).

$$\begin{aligned}n &= 8 \\ Y &= \sum d_i = 188 \\ Y \text{ in km units} &= 1.88 \\ Y' &= 1 - Y/n = 1 - 1.88 / 8 \\ &= 1 - 0.235 = 0.765\end{aligned}$$

From the value of Y' , it also shows that 0.765 is far away from the $\tilde{Y} = 0.44$. What this means is that it shows clustering.

Iddo/Oyingbo Axis

The origin is taken from Iddo end to Oyingbo

$$Y' = 0.70$$

The result also shows clustering

Maza-Maza/First Gate

Taking the origin from the west to the east on Badagry Expressway, we have this value:

The $y^1 = 0.86$ shows clustering along this axis.

Oshodi

Taking the origin from Bolade Junction to Oshodi Market is the north to the south. The following values were obtained from the field.

$$\begin{aligned}Y' &= 0.86 \\ \text{Clustering is also shown.}\end{aligned}$$

Alafia

This is located along Badagry Expressway and it is the next bus stop to Orile Iganmu. Taking from the Orile end towards Mile 2, we have this value:

$$Y' = 0.85$$

The result also shows clustering.

Findings

Over the years, there have been some changes in the location pattern of luxury bus firms. Some moved from the market to the residential areas and areas which are accessible. The dictates of Government on their location is another development. There has been some incidences of forced relocation from some areas to a location decided by the government. The movement from Ojota to Ojota New Garage is a unique case in metropolitan Lagos. Their operational characteristics have undergone some changes. In the early years, there was little or no professionalism. The industry was dominated by touts. This actually led to out-migration of some operators such as Chidi Ebere Transport, Ekene Dili Chukwu Transport, etc. Today professionalism is setting in and some best practices are being introduced in order to encourage the passengers. The introduction of the serving of snacks while on board is a recent development. There is also the promotional approach which involves the issuing of free tickets to passengers who patronise a particular firm for certain number of times consecutively.

Another characteristic of luxury bus operators is diversification into other businesses. A good number of them are into courier services, trucking, etc. This is a safe guard against low revenue during some periods of the year.

The absence of restrictions on rates charged, routes plied and the free entry and exit were noted. It is pertinent to point out that the industry is not under strict restriction or regulations except the necessary ones of licensing and enforcement of safety standard. It is the view of this researcher that any regulations other than the existing ones may create a monopoly since there is no functional alternative except the air transport which is expensive. It is also important to note that the era of professionalism is fast encroaching into the

industry. The introduction of private terminal in our environment depicts this even though space is a major handicap.

The highest level of delay was recorded in First Gate SL4 with 12,540 seconds average in a day. It was followed by Jibowu SL1 with 8661 seconds. The economy of Nigeria loses about (₦75,357,365,678.40) annually due to congestion along the luxury bus terminals in metropolitan Lagos.

Conclusion

Over the years, there has been some changes in the location pattern of luxury bus firms. Some moved from the market to the residential areas and areas which are accessible. The dictates of Government on their location is another development. There has been some incidences of forced relocation from some areas to a location decided by the government. The movement from Ojota to Ojota New Garage is a unique case in metropolitan Lagos. Their operational characteristics have undergone some changes. In the early years, there was little or no professionalism. The industry was dominated by touts. This actually led to out-migration of some operators such as Chidi Ebere Transport, Ekene Dili Chukwu Transport, etc. Today professionalism is setting in and some best practices are being introduced in order to encourage the passengers. The introduction of the serving of snacks while on board is a recent development. There is also the promotional approach which involves the issuing of free tickets to passengers who patronise a particular firm for certain number of times consecutively.

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CHAPTER

39

SOCIOECONOMIC FACTORS AND INCOME LEVEL: A SURVEY OF POVERTY ISSUES IN MAKOKO AND YABA EXTENSIONS, LAGOS STATE

Musa Samuel Olayinka

Abstract

This study examines socioeconomic condition and poverty incidence in Lagos State focusing on Makoko community. The United Nations has regards Nigeria as a country with the largest number of poorest people on earth. Poverty tends to reduce Nigeria's fame to shame. In the case of Lagos State, poverty is rapidly increasing because in the last two decades, the influx of people into the state, from other states within the country is alarming. This is because of the seeking of greener pastures like employment opportunities which are mostly available in the informal sector. The study uses descriptive method by collecting primary data via questionnaires that were distributed at various streets in Makoko community and its environs. Findings reveal a high inclination towards migration to Lagos State for economic reason. There is also the penchant for staying permanently in Lagos as long as Lagos offers higher wage income than other states in Nigeria. These personal conjectures serve as pulling factor and an inducing factor complicating congestion and consequent deplorable living condition. Lagos State Government is restricted by law to stop influx into the state. An increase in Federal Government revenue allocation and poverty alleviation programmes to Lagos State is suggested. The government should create opportunities in other states to ease the tension of migrating to Lagos. Like Lagos State does, other states should also embark on developmental projects such as roads and infrastructure to complement the Federal Government's effort. These will go a long way to employ and occupy people and eventually, reduce unguided influx into Lagos.

Key words: Socioeconomic Condition, Poverty, Informal Sector, Migration, Lagos
JEL Classification Code: I3, P46, I32

1. Introduction

The population of urban centres, all over the world, increases rapidly and on daily basis. Today, it represents more than half of the world's population. In many parts of the developing countries, this increase, to the detriment of the economy, is mainly caused by rural-urban and inter-regional migration to urban centres and urban suburbs or slums. The inhabitants of these areas are often unorganised, unemployed or underemployed, very poor and facing extreme low quality of life. The fact remains, poverty, unemployment and inequality are serious life challenges among the people dwelling in the informal sector in Nigeria. There appears to be many in the sub-Saharan Africa (SSA) where urban populations are growing at 4.5 percent per annum, making population to double every 15 years (Marx, Stoker and Suri, 2013).

The case of poverty incidence in Nigeria is alarming. In the Lagos informal sector, the situation is appalling. In 2018, the United Nations (UN) declared Nigeria a nation with the largest population of poorest people on earth. Meanwhile, it is often said Nigeria is a land flowing with "milk" and "honey" and so, almost every citizen should live above the poverty line. Not only that the citizens are becoming poorer by the day, but they are wallowing in abject poverty and there seems to be no hope of relief. Nigeria, being described as a paradox in 1996 by the World Bank, Obadan (2001) explains, "the paradox is that the poverty level in Nigeria contradicts the country's immense wealth. Among other things, the country is enormously endowed with human, agricultural, petroleum, gas, and large untapped solid mineral resources". The global rise in poverty rate in the urban informal sector is alarming. In Nigeria, the destination of most rural-urban or inter-state migrants appears to be Lagos where poverty rate is increasing day-by-day. Therefore, the rise in poverty in Lagos, especially, in the informal sector poses questions for economic research as well as problems for the state government to address.

Quite a significant research have addressed the issue of poverty in Lagos informal sector particularly the slum areas which seem to be the abode of the

poorest people. Some of these include Ijora-Badia, Agege, Ajegule, Ilaje-Bariga and Makoko. The Population Reference Bureau (2016) reported that the absolute numbers of slum settlements in Lagos has grown from 21 to 100 since 1993. The United Nations (2018) deplored rapid urbanisation, poverty and low living standard in developing countries. Previous research on poverty and slums which include (Oduwaye, Ilechukwu, Yadau, 2011; Yadau, 2012; Ajayi, Soyinka-Airewele, Edewor, 2019; Ajayi and Soyinka-Airewele, 2020; Popogbe, Akinleye and Oke, 2021) focused on housing and inequality poverty nexus. Others examine the slum effects such as congestion or unorganized nature of the community. However, they all overlooked some fundamental issues like income and socioeconomic conditions of the people. In this study, effort is made to fill these gaps as it appears more and more people are migrating into Lagos still with the hope of a better life. Therefore, attempt is made to examine the socioeconomic condition and income level of average informal sector employees or business owners focusing on Makoko and Yaba extensions, both on the Lagos Mainland.

2. Conceptual Issues

Socioeconomic factors refers to society related economic factors which are connected to and impact one another. For instance, employment may determine, income; income level may depend on level of education and education, in-turn, determines the level of employment. In other words, society as a whole may explicitly or implicitly make choice about welfare of entire members which is the function of their aggregate or individual social choice. More often than not, it seems poverty, unemployment and inequality are indirect long run choice made by the society. Therefore, the social choice theory comes into play when discussing poverty and socio-economic conditions of the people.

Social choice theory “is concerned with relationship between individuals’ preferences and social choice” (Fishburn, 1973). The problem of social choice arise from the desire to fit different classes of group aggregation problems into one uniform framework and from seeking excessive generality (Sen, 1977). Besides aggregation, Sen suggested another way to resolve social choice problems is to classify these problems into a number of categories and to investigate the appropriate structure for each category. When a person makes

decision about dwelling places, income and living standard, the information that may be required to enable him to judge which of the two (or more) state is socially preferable may be of diverse character (Roberts, 1980).

Similarly, the social choice made by each person in terms of living condition and income earning may be heterogeneous. Naturally, economic agents are rational and would always prefer a position “B” with higher welfare utility than position “A” with lesser utility. This preference factor and choice may be one of the reasons for rural-urban, and inter-regional migration in many part of the world. For instance, most people would dream of urban centres with social amenities, infrastructures, higher employment opportunities and higher income and would prefer that to a rural area where marginal productivity is zero. Arthur Lewis theory of labour surplus postulated that the excess labour in the rural area would probably be absorbed in the urban sectors to reduce unemployment. Unfortunately, this often results in unemployment and social evils in the urban centres and sometimes leading to social menace.

Moreover, in developing countries, the rule of welfare choice is highly normative tending towards government command. That is, preferences and choice can be imposed directly or indirectly by the government or influencers without due consultation with the people’s consent. These are issues addressed by erudite scholars such as Arrow (1963), Sen (1976), Gevers (1979) and Arrow, Sen and Suzumura (2010). With diverse and general welfare models, they attempted to answer the question of how different social alternatives can be ranked in an order of social welfare. In the general opinion of these authors, social welfare decision should be neutral as much as possible in order to achieve optimal welfare for the entire society.

Other theoretical concepts also refer to poverty and inequality and underscore their relationship. Whenever poverty is mentioned, inequality must be reflected as well. Sen (1973) argued that with regards to average income level, a higher level of inequality will tend to be associated with a higher level of poverty. He added that poverty is also associated with unemployment. This fact has been corroborated by the International Labour Organisation (ILO). The United Nations (UN, 2006) viewed poverty as a condition of deprivation

in terms of physical, economic, social, cultural and political status whereby an individual is incapable of meeting the minimum standard of living.

The Informal Sector

The informal sector plays a major role in the economic structure and development of any developing countries. The informal sector specifically refers to the aspect of the economy of a country that falls within the scope of unorganized economic activities. Given that this sector is made up of many informal economic activities, such as trade, agriculture, building & construction, manufacturing, transportation and services, businesses in this sector are important form of production organization and a key provider of employment opportunities and income to the populace (Nnabuife, Okoli, Nuel and Anugwu, 2020).

The informal sector is crucial to development of an economy. Although, in the advanced countries, the sector may constitute about 8.0% (or less) of economic activities, it is over 50% in sub-Saharan Africa and especially in a developing country like Nigeria (Nnabuife *et al.*, 2020; Mordi, Englama and Adebusuyi, 2010; ILO, 1999). The general believe is that as a country driving fast to development, informal sector activities tend to give way to formal and organized activities. Ogunde (2019) emphasized the importance of the informal sector. He maintained that more than 61% of the world's active population works in the informal sector, and while 85.8% of employment in Africa is in the informal sector, more than 65% of the active population in Nigeria belongs to the informal sector. This means that Nigeria seems to have grown the largest size of informal sector in SSA. This is because the sector has been a key strategy to survival. In Lagos State, which appeared to be the preferred destination of inter-state migrants, informal sector generates quick employment opportunities and made the state a centre of attraction. In addition, regarding the existing Lagos indigenes, it helps increase wealth as properties such as lock up shops, studio rooms, other real estates are rented out to provide relief for the migrants. As unemployment benefits are scarce and wages and pension are inadequate to meet the minimum standard of living; the informal sector provides opportunities to add more income to the purse of the state citizens. These and many more induce the growth of the sector in Lagos State.

Perhaps, the most significant shortcomings of the informal sector is that production and distribution of goods and services in the sector are not recorded in a country's system of national accounting (SNA). As a result, the growth impact are hardly recorded accurately. In addition, they are cut off from adequate public management. Government fiscal policy measures such as taxation and subsidies inadvertently omit them.

Poverty

The concept of poverty has been part of man since his existence. Generally, a person is said to be poor if he cannot meet basic things of life: food, clothe and shelter, easily. That is, poverty is being eradicated or reduced as a person or society meets their needs with increased easiness. The United Nations definition of poverty is attached to dollar earnings per day. It says that a person who live below \$2 per day is poor absolutely. This is applicable to the SSA where there are large number of poorest people. In Lagos Nigeria, just like in many other SSA countries, the issue of poverty is multi-dimensional. Apart from being unable to make both ends meet, many poor people also live in slums and shanty quarters. In fact, some live in uncompleted buildings and under overpass. In Lagos, the number of people falling into the trap of poverty increases daily.

Moreover, poverty might be a result of relative low earnings, even though a few members of the informal sector might earn higher income than those in the formal sector. For instance, a minimum monthly wage of ₦30,000 in the formal sector might be too low for life sustainability in any part of Nigeria, meanwhile, some urban informal sector employees like farmers, petty business owners and artisans might earn far above the national minimum wage. Sometimes, this income disparities play significant role in defining poverty incidence and determining who is poor or not. As a result, it is necessary to clearly recognize the heterogeneity of income earners. In Lagos-Makoko, where this research survey is based, the study is not oblivious of the fact that some informal sector business owners earn higher than the formal sector, but that majority of them appear to be earning below life sustaining income. In awareness of income variation in Lagos informal sector of Makoko, the study will examine income distribution and socioeconomic life

of Makoko dwellers engaging in small scale business activities. Via several relevant questions, the author will attempt to make inferences concerning their income level, living standard, ideal future life aspiration and residence in Lagos.

3. Literature Review

Literature on poverty abounds in multidimensional concepts on developing countries. In Nigeria, Lagos in particular, there are a significant number of them. Nevertheless, there are, but a handful of literature on Makoko Lagos State. They focus on housing condition, gentrification, and living condition of the people in slums. Some of these literature, which are based on descriptive method include Yadua (2012), Funsho, Adegoke and Adewale (2013), Udo-Udoma (2014). Since these studies, there have also been some recent literature which include Ajayi *et al.*, (2019, 2020), Ajayi and Soyinka-Airewele (2020) and Popoola, Olatunde..... and Magidimisha (2020). While many of these studies focused on poor housing condition in the area others deplored the socio-economic activities. Most authors acknowledge the fact that “Makoko settlement, like many other informal settlements across the globe is an embodiment of social inequalities, social segregation and social polarisation” (Ajayi *et al.*, 2019). The authors highlight that more than half of the population in Makoko live on less than \$1.25 per day.

Before the work of Ajayi and others, Yadua (2012) had examined the socio-economic determinants of urban housing types in the low income economic class of Makoko. He noted that over 50% of the houses in the neighbourhood are situated directly in the Lagos Lagoon and are mostly buildings made of plank or bamboo trees. Among other discoveries, the findings show that the area is characterized by poor housing conditions, lack of adequate infrastructure and very poor environmental and physical conditions. Like many other authors, the author recommended government intervention in the socioeconomic life of the people by relocating them to a more descent environment and believed this could be achieved through Built, Operate and Transfer (BOT) and other means of public-private initiatives. This research finding is akin to Funsho *et al.*, (2013) who examined slum settlements regeneration in Lagos Mega-city, focusing on Makoko. They recognized the rapid urbanization in Lagos State, which has not been matched with

sustainable urban and housing policies and living condition. They suggested a strategy of cooperative leadership both at governmental and community level. According to them, for a decent Makoko area to emerge, there must be evacuation of the people to a more humane area. This must be followed by clearance of filth in the area paving way for a new artificial environment. The whole broad plan must involve leadership and stakeholders of the area for a smooth transition.

Nonetheless, close to a decade after these suggestions were offered, little seems to have been done by the government. A close survey of Makoko community in the course of this research showed that usual filthiness of the environment and physical poverty are obvious. For instance, apart from Yaba extensions, that is, areas close to Yaba (Adekunle, Iwaya and Sabo), no other part has witnessed significant change. Therefore, in recent research findings, similar suggestions continue to be made. For instance, Ajayi *et al.*, (2019, 2020), Ajayi and Soyinka-Airewele (2020) have all examined socio-economic conditions in Makoko and their findings reveal total inattention of government to the area. They all deplored the life of an average residents and called for urgent government rescue. They suggested that in the wake of eviction, government should grant long term protection rights to the inhabitants whereby as gentrification commences, the people could have better alternative residences and improved their socio-economic conditions. This analysis corresponds with popoola *et al.*, (2020). They maintained that forced eviction has negative effects and could aggravate existing poverty. They suggest there should be more government effort to provide affordable housing, not only for Makoko inhabitants, but also for the urban poor.

The emphasis of all the literature review so far is mainly on socio-economic condition of the Makoko residents particularly on housing, welfare and poverty. Even though these key aspects of social life is worth being examined, research overlook other important aspects like income level, the reasons for preference for such a discomfoting neighbourhood and future expectations of the inhabitants. Examining their income level whether sufficient to meet basic needs of life, as well as investigating reasons for the choice of a swampy filthy community will provide more information about the socioeconomic life. Consequently, and on a generally note, it is hoped that the reason for the

penchant for Lagos State will be revealed. It should be underlined that the ultimate destination of most inter-state and rural-urban migrants in Nigeria today appears to be Lagos as the city is rapidly growing, probably at 4 to 5 percent annually.

4. Research Design

This research survey focuses on Lagos State and the sampled area is Makoko as well as Yaba extensions such as Iwaya, Adekunle and Oko-Agbon. These are within Lagos Mainland Local Government Area. Makoko is a typical slum on the western side of Yaba, at the edge of the Lagos Lagoon. Majority of the inhabitants of Makoko are informal sector employees or petty business owners who appear to be living on less than \$2 dollar per day. They exist without formal wages or salaries and are facing severe socioeconomic challenges such as low income, unorganized businesses and dirty environment. The research survey was carried out at some locations/streets at Makoko, Yaba-Iwaya, Yaba (Sariyatu Street, Sabo), Oko-Agbon and few others. Interviewees/respondents include petty business owners engaged in legal but unorganized businesses, street hawkers and various other artisans, drivers, road side traders, mini kiosk owners and those on daily paid labour services. Each respondents were issued questionnaires. The research aim at obtaining direct information on socioeconomic conditions and average income level of the informal sector workers or petty business owners in the area. It is important to emphasise that Makoko is a community where samples are taken, it is assumed to be representing the real situation in nearly many of the people living and working in Lagos informal sector. Questionnaires were distributed randomly in places with cluster of targeted respondents.

Broadly expressed, the research survey was based on random distribution of questionnaire to each respondent on the streets or cluster of petty business owners. Apart from streets on Makoko, other streets were also selected at Yaba extensions. These include Adekunle bus-stop, Makoko Road; Oko-Agbon, Makoko-Iwaya and Makoko-Sabo. Details of the streets covered are given in Appendix 2. A random selection of surveyed location was considered though the homogeneousness of Lagos metropolis was recognised. Following a pre-survey of the community, it was observed that there was concentration of respondents in some locations like Acts of Apostle Road, Madam Ramotu

Roundabout, Asejere Fish Market and TiOluwani Plaza. The questionnaires were distributed to each respondent mainly to obtain information about socioeconomic conditions in Makoko and environs and also to have knowledge of the level of personal disposable income. The information, in addition, include each person’s personal opinion about their welfare condition in Lagos State.

In all, 300 questionnaires were distributed on the streets at Makoko, 50 at Oko-Agbon and 50 at Yaba extensions. The relatively large samples enhance collection of more reliable primary data that can produce more conclusive results. On completion of the exercise, 199 questionnaires were returned from Makoko, 48 from Oko-Agbon and 49 from Yaba extensions. Results of the survey, based on income only, are summarized in Table 4.1. The broader results which was based on socioeconomic factors are presented in Appendix 1.

Table 4.1: Summary of Income Structure of Informal Sector Employees and Small Business Owners in Makoko, Lagos State

Average monthly income of an individual in the informal sector, Makoko/Oko-Agbon and Yaba extensions.	Below ₦15,000	₦16,000 to ₦25,000	₦26,000 to ₦30,000	₦31,000 to ₦40,000	₦41,000 to ₦50,000	₦51,000 and above	Number of Respondents
	4%	28%	51%	12%	3%	2%	298

Table 4.1 reveals the summary of income structure in Makoko and Yaba extensions, Lagos State. It can be observed from the Table that 83% of the informal sector employees or petty business owners earn ₦30,000. In fact, results from respondents show that 4%, earn below ₦15,000; 28% earn between ₦16,000 and ₦25,000; and 51% earn between ₦25,000 and ₦30,000. It is established that 83% of what each informal sector individual in Makoko earns equal to or is less than the national minimum wage of ₦30,000. This is obviously less than the United Nation’s benchmark for absolute poverty (\$2 dollars a day) or extreme poverty (\$1.25 a day). However, based on the respondents’ candid revelation, this amount is relatively higher than what is obtainable outside Lagos State. Therefore, the self-adjudged “higher income” suggests one of the reasons for influx into Lagos from other states of the federation.

From Appendix 1, information concerning states of origin, awareness of “likely” Lagos over-population, and reasons for influx into Lagos varied with each respondent’s level of understanding. Result summary shows that 72% disagreed most informal sector employees are of Lagos origin, and 55 percent disagreed most informal sector business owners are of Lagos origin.

The result also shows that 70% of informal sector workers actually migrated into Lagos State from other states in the country. 76% are of the opinion that most people migrated to Lagos for economic reasons. It was revealed that many have not benefited from poverty alleviation programmes either from the state or federal government. Majority are also unaware of seemingly Lagos overpopulation. Many believe Lagos cannot be overpopulated in the nearest future and that the city is a land of greater opportunities than their state of origin. About 65% chose Lagos which they believe has better opportunities than their state of origin or other states of the federation. It then means that this penchant for better life induces informal sector workers’ influx into Lagos. Majority believe that Lagos can still accommodate more people and that the city can acquire more immigrants. In addition, 78 percent are of the opinion that more people would definitely find their way to Lagos. That is, as the economy becomes unfavourable for rural dwellers and inhabitants of other states of Nigeria, some would be forced to migrate to Lagos State to earn a better living condition.

5. Summary and Conclusion

This study examined poverty incidence and socioeconomic factor in Makoko, Lagos State. Quite a number of research has been carried out on Makoko but many of them focused on the housing, gentrification and Lagos State government policy. Few which examined socioeconomic factor and poverty incidence appear not to have done a thorough research. On a general note, the United Nations has tagged Nigeria as the obvious dwelling place of the poorest people on earth. That is, there are more people in Nigeria that face extreme poverty. Both the state and federal governments have made efforts to alleviate poverty incidence and to improve socio economic factors which appeared ineffective. Poverty tends to ravage Nigerian population of over 200 million people within few decades ahead unless a concerted effort is made. The case of Makoko is pathetic because most dwellers are not only extremely

poor but are also living in a very precarious condition and in a community that poses significant threat to their socioeconomic life.

Makoko community is chosen as a survey area which is generally being assessed as a true representative of a typical Lagos State informal sector. Sample questionnaires were distributed to obtain information from the inhabitants of the community. It was found that many of the informal sector petty business owners and employees are in Lagos for a greener pasture. It was discovered that many more would leave other states of origin in the federation to seek better living conditions in Lagos. Although the wage rate in Makoko is too low to meet daily life sustainability, but research shows that such income is relatively higher than what is obtainable in the informal sector outside Lagos. Although, many believe Lagos has not met their aspirations, but as a result of all the seemingly better life Lagos promised, they would prefer the city to going back home. In Makoko, many are of the opinion that things are better in Lagos than in their village or town of origin as they are able to manage to survive.

In the outcome of the study, it is established that there will be continuous migration into Lagos State from other states of the federation as long as there is an increase in perception of a better life in the city. Consequently, unemployment, poverty and poor socioeconomic conditions would likely continue as the city's congestion rises.

Based on the findings in this study, it is recommended that the federal and state government should extend poverty alleviation programmes to Makoko and other slums in Lagos. If these numerous people are involved in public works and earn improved income, there may be a reduction in the poor living condition and poverty ravaging them in the informal sector. Perhaps, most essential is federal government resource allocation and development programmes, these should be extended to the rural areas and other states of the federation. When people can find opportunities in their states of origin, they would be less motivated to migrate to the already congested Lagos. The poor condition of Makoko, Yaba extensions and other slums in Lagos cannot be resolved by the Lagos State Government alone but with the cooperation of the Federal Government. Lagos State Government cannot stop inter-state

migration, therefore, the central government should rise to the challenge by creating opportunities for the citizens in other states of the federation.

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APPENDIX 1

Summary of Questionnaires Administered in the Research Survey of Makoko and Yaba Extensions

	STATEMENTS	SA (%)	A (%)	N (%)	D (%)	SD (%)	Total	TNR
1.	Majority of the business owners in Makoko are of Lagos origin.	24	18	3	29	26	100	300
2.	Majority of the informal sector employees in Lagos are of Lagos origin.	7	8	13	27	45	100	298
3.	Majority of informal sector agents migrated into Lagos State from other states in Nigeria.	45	25	3	16	21	100	298
4.	Most people left their states of origin to seek greener pasture in Lagos State.	26	50	2	12	9	100	299
5.	Most people you know, like your friends and people in your locality, left their states of origin for Lagos for economic reasons.	52	35	1	7	5	100	297
6.	You think you have stayed long enough in Lagos to become prosperous.	35	38	2	11	14		297
7.	When you were leaving your state of origin for Lagos, you believed Lagos would bring you greater prosperity.	21	30	2	24	23		298
8.	Lagos has been able to meet your aspirations to some extent.	22	30	2	23	23		298
9.	Your present level of income is enough to sustain you alone in Lagos.	4	10	1	44	41		299
10.	Your present level of income is enough to sustain you and your family.	3	2	15	35	45		299
11.	Many poor in Makoko and the environment have benefited from a particular government poverty alleviation programme.	7	3	1	41	48		298
12.	I chose to live in Makoko because I am better-off than living in my village or place of birth.	32	33	2	15	18		297
13.	I believe Lagos has attained the level of over-population.	18	25	2	28	27		299
14.	Lagos can still and will always accommodate more people.	24	25	1	23	27		298
15.	Despite the likely poor economic situation in Lagos, more people would definitely find their way to the city.	33	45	1	15	6		299

Note: SA = Strongly Agree; A = Agree; N = Neutral; D = Disagree; SD = Definitely Disagree. TNR = Total number of responses to each questionnaire.

APPENDIX 2

Streets and Important Locations Covered in the Research Survey

Streets and important locations covered include:

Abiodun Street, Makoko, Acts of Apostle Church Street (Adekule Ebute-Metta), Alhaji Salawudeen Olarewaju Mosque, Asejere Fish Market, Igbehinadun Street, by Abiodun bus-stop, Iwaya Road, Onike, Joseph Harrison Street, Lagoon View Estate, Late Madam Ramotu Roundabout and adjoining streets, Makoko Public Toilet, New Makoko Community Estate; Ogayemi Street, Oko-Agbon, Oko-Agbon, Sojinu Close, Oko-Agbon; Sariyu Street, off Oyadiran Estate (Makoko, Sabo-Yaba), Makoko Road, Tioluwani Plaza (T.O. Market), Wright Street, (Adekunle, Ebute-Metta).

APPENDIX 3

Sample Questionnaire Used for the Research Survey

**UNIVERSITY OF LAGOS
DEPARTMENT OF ECONOMICS
FACULTY OF SOCIAL SCIENCES**

Dear Respondent,

Lagos State is one of the destinations of rural-urban migrants in Nigeria. In the last two decades, the movement to Lagos State from other states in Nigeria appears to have been on the increase. In spite of its relative small size, it has been predicted that migration or relocation to Lagos will increase in the next decade. This might lead to population explosion, dearth in utilities and increase in social evils. These might be aggravated by low earning, particularly, in the informal sector often not adequately covered in government sphere of developmental planning. Therefore, the objective of this questionnaire is to obtain information about socio-economic life of the informal sector employee, worker or business owner and also to collect information on their average income.

As a worker, entrepreneur or business person in the informal sector in Lagos State, you are required to state your necessary information on average monthly income (salaries or wages as the case may be) and questions concerning your socio-economic life in Lagos. This helps the researcher to make unbiased and realistic conclusion about average income earning and welfare attainable.

Your sincere and accurate response to each question will be highly appreciated. You are not required to disclose personal identity such as name and any position held. By answering these questions, you will provide us with in-depth knowledge and information that will enable us to make useful policy recommendations or suggestions about one of the major reasons why Lagos might probably be one of the major cities in the world with poorest people.

All answers are confidential and no one will be able to identify you from information you provide.

Section A

Please tick as appropriate:

Gender: Male () Female ()

Age: 16-49 () 50-64 () 65 and above ()

SECTION B

Information on Size distribution of income of individuals in the Informal Sector, Lagos State.

The following statements create permissive atmosphere to state or comment or express your views about your average monthly income and some aspects of your Lagos prosperity pursuit.

Please tick as appropriate in the box.

Average Monthly Income of an Individual

What is your net average monthly income?	Below ₦15,000	₦16,000 to ₦25,000	₦25,000 to ₦30,000	₦31,000 to ₦40,000	₦41,000 to ₦50,000	₦51,000 and above

Tick as in the box as appropriate.

Sample Questionnaire

Note: SA = Strongly Agree; A = Agree; N = Neutral; D = Disagree; SD = Definitely Disagree.

s/n	STATEMENTS	SA	A	N	D	SD
		5	4	3	2	1
1	Majority of the informal sector employees are of Lagos origin.					
2	Majority of the informal business owners are of Lagos origin.					
3	Majority of informal sector agents migrated into Lagos State from other states in Nigeria.					
4	Most people left their states of origin to seek greener pasture in Lagos State.					
5	Most people you know, like your friends and people in your locality, left their states of origin for Lagos for economic reasons.					
6	You think you have stayed long enough in Lagos to become prosperous.					
7	When you were leaving your state of origin for Lagos, you believed Lagos would bring you greater prosperity.					
8	Lagos has been able to meet your aspirations to some extent.					
9	Your present level of income is enough to sustain you alone					
10	Your present level of income is enough to sustain you and your family.					
11	Many poor in Makoko and the environment have benefited from a particular government poverty alleviation programme.					
12	I chose to live in Makoko because I am better-off than living in my village or place of birth.					
13	Lagos has attained the level of over-population.					
14	Lagos can still and will always accommodate more people.					
15	In spite of the likely poor economic situation in Lagos, more people will definitely find their way to the city.					

CHAPTER

40

ENHANCING PROSPERITY THROUGH THE SUSTAINABLE DEVELOPMENT GOALS

Egunjobi T. Adenike

Abstract

The aim of this study is to evaluate the most effective means of increasing prosperity through the implementation of the Sustainable Development Goals (SDGs) in the Nigerian economy. The study aimed at an analysis of the impact of sustainable development goals on the quality of life of Nigerians via the three major themes on which the sustainable development goals are hinged; economic, social and the environment using regression analysis and it also attempts to determine the existence of a long run relationship of the variables in each theme by employing the Engel- Granger and the ARDL co integration technique. Time series Nigerian data from 1995 – 2017 was used in the study. The results showed that the economic indicators were the most effective amongst the three models (economic, social and the environment) used in this study and the reduction of poverty is the most effective tool amongst the economic indicators. The most impactful variable that will increase prosperity in all the themes is peace, justice and strong institutions. The study also discovered that the variables are co-integrated and the ARDL correction term is negative and significant. Among the recommendations made is the need for government to ensure peace, justice and strong institutions and to also drastically reduce poverty.

Keywords: Sustainable Development Goals, Prosperity, Development, Regression, Nigeria, Africa

Introduction

In 2015, The General Assembly of the United Nations (UN) in its meeting adopted 17 Sustainable Development Goals (SDGs) with the aim that achievable targets set are attainable by 2030. The SDGs are further decomposed into 169 targets, and there are currently about 230 indicators that have been proposed for realizing these targets.

The meaning of sustainable takes its viewpoint from the generally acclaimed definition by the World Commission on Environment and Development. (WCED, 1987), which defined sustainable development as: “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. Areas of difference comes into effect when considering the different ways by which this goal can be accomplished. One of such attempts is the systems approach which characterizes sustainability as the maximization of goals across environmental, economic and social systems (Barbier, 1987; Barbier and Markandya, 2012; Costanza *et al.*, 2016; Ekins, 1994; Elliott, 2006; Holmberg and Sandbrook, 1992 & (Pezzey and Toman, 2002).

First, the 2030 agenda emphasises that the SDGs are interlinked, and that ensuring integration across all 17 goals is critical to achieving sustainable development. Second, each of the SDGs can be characterised as a goal primarily attributed either to the economic, environmental or social system. Table 1 depicts the 17 SDGs of the 2030 Agenda (UN 2015), and indicates the system with which it can be mainly associated. In all, there are seven economic system goals, five environmental system goals, and five social system goals. However it is pertinent to note that some of these SDGs may overlap in more than one type of system. For example, “Quality Education” is considered a social system goal, but considering the impact of schooling on human capital formation and thus long-run economic development, this SDG could also be considered an economic system goal. What has been done is to primarily attempt to assign each of the 17 SDGs to a goal that it represents the best.

The concept of economic growth is concerned with productivity of the economy which other things being equal translate to improvement in the standard of living of residents of a country. Development on the other hand brings in the

social and institutional aspect of the country, it is then obvious that both economic growth and development are human centred. However, these two concepts do not incorporate the environment in which activities leading to economic growth and development take place. The environment does not only host man and its resources but also determine the continued existence of man. Therefore, there is a need for sustainability. Sustainable development means maintaining a delicate relationship between human needs to improve lifestyles and feeling of well-being on one hand, and preserving natural resources and ecosystems on which the present and future generations depend [World Commission on Environment and Development, 1987]. In other words, sustainable development is the development that meets the present needs without compromising the ability of future generation to meet their own needs.

The objectives of sustainability aims at reconciling the ecological, social and economic dimensions of development now and into the future while adopting a global perspective in this task Baker, 2007). This approach to development also aims at promoting development that is contained within the ecological carrying capacity of the planet which is socially just and economically inclusive.

Table 1: The 17 Sustainable Development Goals

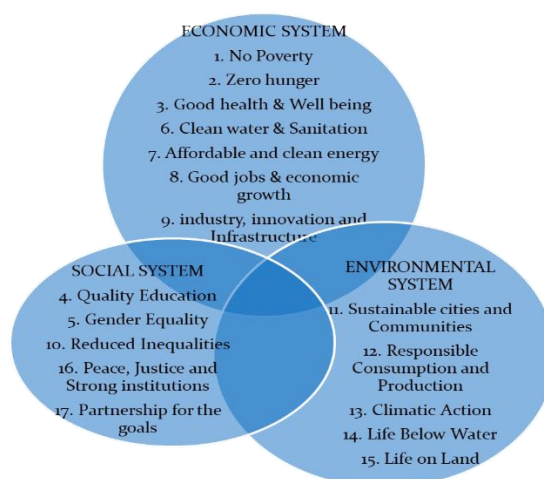
1.	No Poverty: End poverty in all its forms, everywhere (Economic).
2.	Zero Hunger: End hunger, achieve food security and improved nutrition and promote sustainable agriculture (Economic).
3.	Good Health and Well-being: Ensure healthy lives and promote well-being for all at all ages (Economic).
4.	Quality Education: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (Social).
5.	Gender Equality: Achieve gender equality and empower all women and girls (Social).
6.	Clean Water and Sanitation: Ensure available and sustainable management of water and sanitation for all (Economic).
7.	Affordable and Clean Energy: Ensure access to affordable, reliable, sustainable and modern energy for all (Economic).
8.	Good Jobs and Economic Growth: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (Economic).
9.	Industry, Innovation and Infrastructure: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation (Economic).
10.	Reduced Inequalities: Reduce inequality within and among countries (Social).
11.	Sustainable Cities and Communities: Make cities and human settlements inclusive, safe, resilient and sustainable (Environment).

Readings in UN-Sustainable Development Goals and the Lagos Region

12. Responsible Consumption and Production: Ensure sustainable consumption and production patterns (Environment).
13. Climate Action: Take urgent action to combat climate change and its impacts (Environment).
14. Life Below Water: Conserve and sustainably use the oceans, seas and marine resources for sustainable development (Environment).
15. Life on Land: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss (Environment).
16. Peace, Justice and Strong Institutions: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels (Social).
17. Partnerships for the Goals: A successful sustainable development agenda requires partnerships between governments, the private sector and civil society. These inclusive partnerships built upon principles and values, a shared vision, and shared goals that place people and the planet at the centre, are needed at the global, regional, national and local level (Social).

Source: United Nations. *Sustainable Development Goals: 17 Goals to Transform our World*. Available at <http://www.un.org/sustainabledevelopment/sustainable-development-goals>

Summarily, it can be represented with a Venn diagram.



The study is significant in helping the Nigerian government to identify and concentrate on the key areas which can bring about attaining the SDGs with maximum benefit structured towards enhancing the prosperity of the Nigerian economy given the fact that the possibility of achieving these goals all at once

is beyond the capabilities of Nigeria in terms of resources, capital, technology, infrastructures and so on. Given also the fact that Nigeria is characterised with high level of inequality, poverty, unemployment, environmental pollution and degradation, poor justice and institutions, insecurity, low access to basic needs and so on. Thus, it is imperative for the government to prioritise and decide the pathway to achieving the SDGs based on the peculiar needs and structure of the economy.

There are few studies that had analysed the SDGs via the three major themes, fewer still that had conducted such analyses using empirical analysis. However to the best of my knowledge such empirical analysis has not been carried out with the intention of examining the most impactful of the themes and within the indicators of each theme, especially not on the Nigerian economy.

The crux of the study lies in determining the important and most impactful indicators vizàvìz the three major themes of SDG; economic, social and environmental models. The study will not only identify the most impactful in each theme but also the most impactful theme in achieving prosperity and by direct link sustainable development. Furthermore, the study would investigate the existence of a long run among the selected variables of each model.

The rest of the paper proceeds as follows. Section 2 presents the literature review, Section 3 deals with methodology. Section four focuses on empirical results and interpretation and Section 5 concludes and makes recommendations.

Literature Review

Theoretical Review

The theoretical discourse used in this paper is premised on the literature on growth and development, basically the endogenous growth model and the unbalanced theory of development.

The Growth Models

In macroeconomics the neo-classists comprising majorly of the contributions of Domer (1957) and Solow (1956) has made huge impact on the development of the growth model.

According to the neo classists, in the long run the economy can be predicted to converge towards a steady rate of growth which depends on the rate of technological process that is exogenously determined. In summary, a country will grow faster if it has a higher savings rate which will be used to create more capital. However, since long term economic growth is positively related to diminishing returns to capital and because of the criticisms levied against the assumptions made in the neoclassical theory this has limited its use for analysis and empirical verification.

A better alternative is the endogenous growth model led by Romer (1986). They replaced the neo classical assumption of constant returns to scale with an assumption of increasing returns to scale and also added value by specifying that variables which generate growth that are determined within the model. According to them, the concept of technology depends on economic factors such as labour – capital relationship. An increase in the capital output ratio implies an increase in income and also the ability to maintain high levels of growth in the long run. The role of human capital is unanimously accepted as indispensable to economic growth and development (Lucas 1988). Hence, sustained development depends on higher levels of human capital whose stock increases as a result of enhanced literacy, better health, employment, higher income, reduced inequality, nutrition, access to cleaner water and reduced environmental degradation(Weil, 2007). Thus, the popularity of this model is seen in its ability to allow for the inclusion of socio economic variables that will propel growth and development in the long run.

Unbalanced Growth Theory

Albert O. Hirschman (1958) developed the idea of unbalanced investment to complement existing imbalances. He contends that deliberately unbalancing the economy, in line with a predesigned strategy or by investing in a laggard sector to bring it abreast of others is the best path for economic growth and development. They are of the opinion that development should be planned systematically and step by step by identifying core areas of investments and then the benefits and multiplier effects from such investments will propel the development of other sectors until the economy becomes fully developed. He argued that the big push thesis may make interesting reading for economists, but it is gloomy news for the Less Developed Countries (LDCs). The LDCs do

not have the skills needed to launch such a massive effort. The major shortage in Less Developed Countries (LDCs) is not the supply of savings, but the decision to invest by entrepreneurs, the risk takers and decision makers. The ability to invest is dependent on the amount and nature of existing investments. Hirschman believes poor countries need a development strategy that spurs investment decisions. He suggested that since resources and abilities are limited, a big push is sensible only in strategically selected industries within the economy. Growth then spreads from one sector to another (similar to Rostow's concept of leading and following sectors). However, investment should not be left solely to individual entrepreneurs in the market, as the profitability of different investment projects may depend on the order in which they are undertaken. Investments should occur in industries that have the greatest linkages, including backward linkages to enterprises that sell inputs to the industry, and forward linkages to units that buy output from the industry. According to Hirschman, government must be involved in establishing investments or creating a conducive environment for investments. He is of the opinion that even a government that limits its major role to providing infrastructure can time its investment projects to spur private investments. Government investment in transport and power will increase productivity and thus encourage investment in other activities. Given the fact that the SDG's targets are so many and diverse and could be too complex to be achievable by an economy especially a developing country. A better alternative is to identify the most impactful targets to achieve specific goals which will then spur investment and enhance the quality of life of the citizen.

Empirical Studies

HEARD (2006) emphasized on the precise dynamic channels of interdependence of health status, employment and income as fundamental to the achievement of development. They believed that better health outcomes, reduction of poverty, enhancing employment opportunities and increasing income and productivity are policy targets that should be pursued since the development of Saharan African countries rest squarely on these issues. Lustig (2006), in a working paper also examined a direct relationship between health and growth using time series data from 1970 – 1995. He observed that health is responsible for approximately one third of long term economic growth.

Mier (1989) opined that only those with skills and better health can be employed and earn income. Thus education, health and general well-being of the majority of people in industrialised nations are as a result of national prosperity. In the same vein, Omojolabi (2013) investigated the link between economic growth, unemployment and poverty in Nigeria using a small macroeconomic model from 1970 – 2010. The model was organized into three blocks; growth, unemployment and poverty. He discovered that growth policies should be people centred if poverty, income inequality, unemployment reduction and provision of adequate infrastructure and social services is to be achieved. Making use of Multiple Regression, Egunjobi (2013) was able to discover that investment in human capital via education, health and training, infrastructural development, provision of employment will significantly improve the wealth of a nation.

With regard to the influence education has on future wealth of individuals, there is not a consensus. The human capital theory has suggested that education raises wages and increases the productivity of employees, thus establishing a boost of productivity in the benefit of society. Contrariwise, the screening hypothesis highlighted that education has no effect on labour productivity, being used as a signaling device that corporations employ to select the more skilled labour force, the benefit of educational investment being smaller. Further, the life cycle and permanent income hypotheses supposed that individuals try to maximize their welfare by balancing a lifetime stream of earnings with a lifetime pattern of consumption (Armeanu *et al.*, 2018).

The GC report believes that education drives more healthy and sustainable lives, also contributing to a more peaceful world as an outcome of encouraging forbearance amongst nations. Therewith, education diminishes inequalities insofar as educated persons can get high-paying jobs.

In their study on the Sustainable Development Goals and the systems approach to sustainability; Edward and Burgess (2017) by adopting standard methods of the theory of choice and welfare under imposed quantities, showed that it is possible to measure the welfare effects of an increase in the indicator level for one SDG by identifying the tradeoffs that occur with achieving another goal. They present a quantitative assessment of current progress and tradeoffs among

the 17 SDGs, using a representative indicator for each goal. The results of the analysis can help in the design of appropriate policy interventions to achieve specific SDGs, minimize the potentially negative knock-on effects on some goals whilst capitalising on the positive win-win impacts on other SDGs.

According to Ayres (2008), sustainability is a normative concept about how humans should act in relation to nature, and how they are responsible for each other and future generations. In this context, it is noted that sustainability is conducive to economic growth based on social justice and the efficient use of natural resources (LOZANO, 2012).

Examining the policy gap and action dilemma of sustainable development in the Nigerian economy through the use of secondary data. Ejumudo (2015) examined the policy gaps and issues constraining the actualisation of sustainable development and the possibility of environmental crisis in Nigeria. He therefore recommended that an inter-disciplinary approach, action programme and governmental or private sector collaboration will help in solving the policy gap.

In literature, it had been established that individuals with a higher income or nations with higher wealth have been found to enjoy better health status via health investment. These studies included but are not limited to the empirical studies by Anyanwu and Erhijakpor (2007), Anad and Bamighausen (2004) and Wang and Rettermaier (2007). Also, a causal relationship was established between health and employment by studies engaged in by Chirikos and Nestle (1985), Rosenzweig (1988) and Fogel (1994).

Research Methodology

The aim of this paper is to assess the impact of the SDGs via the three major themes; economic, social and environmental sustainability at enhancing the prosperity of the Nigerian economy through Multiple Linear Regression. A secondary data from the years 1990 – 2017 have been collected from World Bank Indicators (WDIs), Central Bank of Nigeria (CBN) publications and MDG data bank. The endogenous growth model and the 17 SDGs targets have influenced the selection of variables used in this study. Unfortunately, due to

the dearth of data in Nigeria, all the 17 goals could not be incorporated into the models.

The SDGs are centered on three themes namely; social, economic and environment. Each theme captures variables that can represent the associated theme as by the SDGs and dependent on the data available in Nigeria as well as their importance and relevance to the structure of the Nigerian economy.

The **Economic indicators** are:

- Poverty, measured as human development index (HDI);
- Zero Hunger measured as % of undernourished population;
- Health measured as life expectancy rate;
- Unemployment measured as rate of unemployment.

The **Social indicators** are:

- Quality education measured as literacy rate;
- Inequality measured by the Gini coefficient;
- Gender equality measured as number of female seats in the National assembly;
- Peace, justice and strong social institutions measured by the rule of law.

The **Environmental indicators** are:

- Climatic action measured by consumption of ozone depleting substances;
- Life on land measured by carbon emissions;
- Responsible consumption and production measured by proportion of people using improved water sources.

The dependent variable for each model is prosperity measured as real per capita GDP. Prosperity is proxied by RGDP because according to Pezzey (1989) Development is sustained along a development path if per capita income does not decrease at any point along the path. This involves thinking of wealth/income as the basis for prosperity. That is, the wealthier an economy is today, the more it prospers and the greater the level of well-being her citizens can enjoy in the future where total wealth is typically conceived as the value of all assets in an economy.

Model Specification

The first theme is based on the economic variables, in this study four variables namely; level of poverty, zero hunger, health and unemployment rate. It is expected that as the level of poverty reduces because people will earn more income thus development is attained, prosperity of the economy is achieved as such the percentage of undernourished will also reduce, the life expectancy rate is expected to be positively related to prosperity as productivity is enhanced when people are more healthy and productive. Again prosperity is expected to be inversely related to unemployment.

The **economic model** is specified as:

$$PPT_t = \alpha_0 + \alpha_1 POVT_t + \alpha_2 ZH_t + \alpha_3 HE_t + \alpha_4 UNEMP_t + \mu_t \quad (1)$$

Where

PPT_t - proxied by real per capita GDP

$POVT_t$ - level of poverty

ZH_t - % of undernourished population

HE_t - life expectancy rate

$UNEMP_t$ - unemployment rate

μ_t - stochastic disturbance term

The second theme is based on the social variables namely; quality education, gini coefficient, gender equality and peace, justice and strong social institution.

The **social model** is specified as:

$$PPT_t = \alpha_0 + \alpha_1 QEDU_t + \alpha_2 GINI_t + \alpha_3 GENE_t + \alpha_4 RLAW_t + \mu_t \quad (2)$$

PPT_t - proxied by real per capita GDP

$QEDU_t$ - literacy rate

$GINI_t$ - gini coefficient

$GENE_t$ - number of women seats in the legislature

$RLAW_t$ - rule of law

μ_t - stochastic disturbance term

It is expected that there will be a positive relationship between prosperity and quality education, gender equality and rule of law. While the relationship between prosperity and the gini coefficient should be indirect. That is as the quality of education is enhanced, gender participation is increased, social justice is prevalent and inequality is reduced then the economy prospers.

The third theme is based on the environment variables namely; climatic action measured by consumption of ozone depleting substances, life on land measured by carbon emissions and responsible consumption and production measured by a proportion of people using improved water sources.

The **environmental** model is specified as:

$$PPT_t = \alpha_0 + \alpha_1 ODS_t + \alpha_2 CO_{2t} + \alpha_3 WS_t + \mu_t \quad (3)$$

PPT_t—proxied by real per capita GDP

ODS_t— Consumption of ozone depleting substances

CO_{2t}—Carbon oxide emissions

WS_t— Water sources facilities

μ_t – stochastic disturbance term

It is expected that the environmental indicators, ODS and CO₂ will be negatively related to the prosperity of the economy this implies that as there is reduction in the consumption of ozone depleting substances and carbon oxide emissions the economy will experience development especially with an improvement in water facilities.

Estimation of Techniques and Procedures

The study starts by examining the time series properties of the variables, given the belief that many economic variables evolve, grow and change over time in both real and nominal terms. This is so because a substantial part of economic theory generally deals with the long-run equilibrium relationships generated by market forces and behavioural rules. Consequently, running a regression among each economic variables with false assumption that they are stationary will result in spurious regression (Granger and Newbold, 1974). It therefore follows that any analysis, forecast and policy recommendation based on such results

would be meaningless. These problems were avoided by determining the order of integration of the variables. This is done with the intention of establishing the stationarity of the variables. This study therefore employs the Augmented Dickey- Fuller test statistics. If they are stationary at levels then they are automatically cointegrated, if not then there is ground to conduct a cointegration test to establish the long run relationship of the variables. In cointegration, it is believed that though individual variables might not be stationary but a linear combination of the variables tend to be stationary. To test for integration this study makes use of the Engel- Granger and ARDL bound cointegration tests. For the regression analysis, this study used the fully modified ordinary least square (FMOLS) and the ARDL.

Empirical Results

The results presented in this section are the time series tests, cointegration tests and the regression results. There is the need to conduct diagnostic tests on the data to avoid spurious results. Thus, the time series test are conducted as a result of the spurious nature of time series data collected in less developed countries. Therefore this study conducted the unit root on each of the variables used for the study.

Unit Root Tests

The stationary tests for all the variables were carried out using the Augmented Dickey-Fuller tests (ADF). The ADF tests the null hypotheses that a time series variable Y_t is non stationary, $I(1)$ against the alternative that is stationary $I(0)$, the results of the unit root tests are presented in Table 1. It can be observed that all the variables except GINI and RLAW were not stationary at levels, but were stationary at first difference. The results indicated that the null hypotheses of non-stationary was rejected, which implies that most of the variables are integrated of order one, i.e. $I(1)$ except for GINI and RLAW which are stationary at levels.

Table 2: ADF Unit Root Test

ADF			
VARIABLE	LEVEL	FIRST DIFF	ORDER OF INTEGRATION
CO ₂	-1.849581	-4.641850**	I(1)
GENE	-1.670294	-16.28741**	I(1)
GINI	-8.586097***	-	I(0)
HE	2.214576	-7.899367***	I(1)
ODS	-1.359004	0.0028**	I(1)
POV	2.587914	-5.930856**	I(1)
QEDU	-2.545589	-6.305860***	I(1)
RLAW	-3.969877*	-	I(0)
UNEMP	-1.467797	-4.373794**	I(1)
WS	-1.917977	-3.688818**	I(1)
ZH	-1.751919	-2.128645**	I(1)
LOG RGDP	-0.940400	-5.828908**	I(1)

Notes: *, **, *** implies significance at 10 percent, 5 percent and 1 percent respectively.
Author's computation

Cointegration Test

Having established the unit root properties of the variables, the combination of two or more non-stationary variables could however be stationary, if these series share a common long run relationship. In this case, these variables are said to be co-integrated. The existence of co-integration is indicative of a long run relationship between the explained and the explanatory variables.

Thus, given the time series characteristic of the variables, the existence of co-integration among the variables of the economic and environmental models was investigated by employing the Engel-Granger test while the existence of co-integration of variables in the social model was investigated using ARDL Bound test because RLAW and GINI are stationary at levels.

Table 3: Engel-Granger Co-integration Result for the Economic Model

VARIABLE	TAU STATISTICS	MACKINNON P- VALUES
LOG RGDP	-6.445371**	0.0030
POV	-3.486322	0.4055
ZH	-5.338099**	0.0252
HE	-6.456319**	0.0029
UNEMP	-4.900338*	0.0635

Notes: *, ** implies significance at 10 percent and 5 percent respectively.
Author's computation

The Engel-Granger results showed the existence of co-integration among the economic variables implying long run relationship between prosperity and poverty, zero-hunger, health and unemployment variables.

Table 4: Engel – Granger Co- integration result for the Environmental Model

VARIABLE	COEFFICIENT	T- STATISTICS
LOG RGDP	-4.371801***	0.0678
ODS	-4.199054***	0.0907
CO2	-2.419901	0.7240
WS	-0.972755	0.9903

Notes: *** implies significance at 1 percent.
Author's computation

The Engel-Granger results showed the existence of co-integration among the environmental variables implying long run relationship between prosperity and consumption of ozone depleting substances, carbon oxide emissions and sources of water facilities.

Having established the long run relations of the variables of the economic and environmental models, the regression analysis is carried out using Fully Modified OLS(FMOLS).

Economic Model Regression Result

$$RGDP = 24.50207 - 0.939646**POV - 0.020640** ZH + 0.148590***HE + 0.002787UNEMP$$

Std. error	0.2380	0.3131	0.004	0.006	0.002
t – Test	102.9524	-3.001	-4.830	23.430	1.4828
R ² = 0.991		Adj. R ² = 0.989			

From the results of the FMOLS regression presented above, prosperity of the Nigerian economy is negatively related to poverty, and zero hunger while it is positively related to health and positively related to unemployment. This implies that an increase in the poverty level will lead to a decrease in prosperity of the economy; an increase in hunger will lead to a decrease in prosperity of the economy: an increase in the level of health will lead to an increase in prosperity of the economy and an increase in the unemployment rate leads to an increase in prosperity of the economy. The positive constant term shows that the economy will prosper even when poverty, hunger, health care and

unemployment rate are zero. The R^2 is and adjusted R^2 are very high (about 99%) depicting that about 99% of the variations in prosperity can be accounted for by economic variables (poverty, hunger, health care and unemployment rate) signifying the great importance that should be attached to economic policies in achieving sustainable development. The variables significantly affect prosperity at least at 5 percent and carry the expected signs except for unemployment rate which does not significantly affect prosperity and that could be because it does not conform to theoretical expectations. When poverty problems are addressed, then people can feed better and well and are able to take care of themselves not only financially but also health wise. This will boost their immunity level and make them more productive, a healthy nation is a wealthy nation. The results further shows that the most impactful variable on prosperity (sustainable development) is poverty reduction, followed by health status, then zero hunger and the last is unemployment.

Environmental Model Regression Result

$$\text{RGDP} = 29.41727 - 0.096040*** \text{ ODS} - 0.015957\text{CO}_2 + 0.043516***\text{WS}$$

Std. error	0.2268	0.017	0.11250	0.0022
t – Test	129.7147	-5.8231	-0.1418	19.6213
$R^2 = 0.987$		Adj. $R^2 = 0.985$		

The results for the environmental model presented above shows that prosperity is negatively related to consumption of ozone depleting substances, negatively related to carbon oxide emissions and positively related to water facilities. Thus, an increase in the consumption of ozone depleting substances and carbon oxide emissions reduces the level of prosperity of the economy while an increase in water facilities will bring about an increase in the level of prosperity. The variables are statistically significantly at 1% except for carbon oxide emissions. All the variables carry the expected signs. The positive constant term shows that the economy will prosper even when consumption of ozone depleting substances, carbon oxide emissions and water facilities are zero. The R^2 is and adjusted R^2 values depict that about 99% of the variations in prosperity can be explained by the environmental variables; ozone depleting substances carbon oxide emissions and water facilities. The damaging effect of ozone depleting substances and carbon oxide emissions on the environment and development of the economy cannot be overemphasised. This implies that continuous

degradation of the environment will have great negative consequences on the prosperity of the economy. While there is the need for cleaner and purer sources of water for a cleaner and purer environment which will prevent the spread of disease and health problems especially communicable ones and promote a healthy and clean environment. The variable with the greatest impact on prosperity (sustainable development) in the environment model is reduction in ozone depleting substances, followed by water sources and finally, carbon oxide emissions.

The ARDL Bound Test

While conducting the unit root test, it was discovered that two variables in the social model; GINI and RLAW were stationary at levels while other variables were stationary at first difference. As a result the Engel- Granger Co-integration test will not be appropriate for conducting co-integration. Thus, this necessitates the use of the bound ARDL test to determine the level of stationarity of the variables in the social model.

Table 5: The ARDL Bound Test

F- STATISTICS			4.81486
Critical value bounds			
Significance	l(0) Bound	l(1) Bound	
5%	2.86	4.01	

The ARDL Bound test shows that the variables; quality of education, gender participation, social justice and inequality are stationary at first difference with the F- Statistics value greater than the l(1) bound value at 5 per cent.

Having established that the variables are stationary at first differences we can then proceed to the ARDL regression.

Table 6: The ARDL Regression Results

Co – integrating Form			Long Run Coefficients		
Variable	Coefficient	t- statistics	Variable	Coefficient	t- statistics
QEDU	0.004046**	2.333263	QEDU	0.088155**	2.354246
GINI	0.000794	0.393245	GINI	0.008713	0.399015
GENE	0.019397**	2.263019	GENE	0.212865	3.923437
RLAW	20.241623***	-5.542271	RLAW	-2.651652	-3.835025
CointEq(-1)	-0.091122**	-3.709029	C	22.128055	9.177956

Notes: *** ** * implies significance at 1, 5 & 10 percent respectively.
Author’s computation

$R^2 = 0.998$ Adj. $R^2 = 0.998$ D.W. = 1.11
F-Stats. =2066.274 p-Value = 0.0000

The ARDL regression shows the existence of co-integration among the social variables implying long run relationship between prosperity and quality of education, gender participation, social justice and inequality. The ARDL regression analysis also captures both the short and long run effects of the variables of the model. From the table, the short run correction term has the expected signs and is significant at 5 percent, this shows that prosperity adjusts by 0.91 percent toward equilibrium annually. Also, the long run coefficient is significant at 5 percent meaning that there is stability and the economy will always converge to equilibrium in the long run at 221 percent.

It can be implied from the results that prosperity is directly related to education, directly related to inequality and gender equality and indirectly related to social justice. Again peace, justice and strong institutions is significant at 1 percent level, while gender equality and education are significant at 5 percent level; this implies that these variables significantly have impact on the level of prosperity. Furthermore, the results depicts that increase in education training and human capital investment, increased inequality, increase in gender equality and decrease in social justice will propel increase in the prosperity of a nation. However, only education and gender equality followed expectations. The rule of law variable is indirect and this could be because in Nigeria, the more wealthy you are the easy it becomes to breach the rule of law and bend the law to favour you. The F statistics is significant at 1 percent implying the goodness of fit of the impact of the regression social model in measuring prosperity. The R^2 and the adjusted R^2 shows that about 99% of the variations in prosperity level can be accounted for by the social indicators.

Conclusion and Recommendations

Conclusion

The study has discovered that indeed the three themes are very effective in achieving sustainable development in Nigeria. But pursuing all these goals at once might be beyond the capability of the nation given the existing resources. So, in the economic model the most impactful variable is poverty reduction

followed by improvement in health status. In the environment model the most impactful is control and reduction of ozone depleting substances followed by provision of cleaner water sources. In the social model, the rule of law followed by gender equality are most impactful. The most impactful of all the variables is the rule of law, while the most impactful model is the economic model.

Recommendations

To achieve sustainable development and the prosperity of the economy the following suggestions are made:

Again, the priority of government should be towards enhancing peace, justice and strong institutions. There is the need to put a stop to the unrest and killings prevalent in the country if sustainable development is to be achieved.

The next priority of government should be towards reducing poverty by all means, once poverty is significantly reduced, hunger will reduce, and people will be healthier because they can take care of themselves by feeding well and medical care.

As concerns the environment, efforts should be put in place to reduce environmental degradation mostly through the control of ozone depleting substances. Efforts should be geared towards the provision and access to cleaner water sources by both individuals and industries. The monitoring of strict compliance to environmental and pollution laws should be achieved.

Upholding the rule of law must be upheld and the judiciary system must be fair and just in discharging its duties. Also, there is need for more participation of women economically and politically for development to be attained.

The role of investment in human capital via education and training should be seriously addressed. Education remains one of the important ways of reducing poverty and unemployment, as such government should ensure that citizens enjoy quality education tailored to meet the needs of the labour market. This will increase the level of prosperity of the nation.

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