

KIU Journal of Humanities

College of Humanities and Social Sciences



Kampala International University, Uganda.

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Editorial

This issue of *KIU Journal of Humanities* touches on Human Rights, Religious Studies, Language and Literary Studies, Development Administration, Media / Language Studies, Entrepreneurship Studies, Educational Management and Educational Technology.

The first part of the Journal focuses attention on Development Administration. It is universally accepted that administration needs to constantly interact with environment in order to achieve development goals. Therefore Development Administration involves strengthening and improving administrative capabilities as a mean for achieving development goals. Administration of Development' having a key role in implementing the development programmes, projects and policies. It is against this backdrop that one of the papers in this part evaluates Girl Child Education and Sustainable National Development through Research and Innovation. It is suggested that through seminars and workshops at the grass- root, parents should be encouraged to send their daughters to school and inform them of the dangers of early marriages and the benefits that will accrue to the family and the nation as a whole when these girls are educated.

Articles in the second part of this edition center on Language and Media Studies. It is impossible for any nation of the world to attain any form of development when its people are not properly developed. This is because nations are built or developed through knowledge; and all forms of knowledge are transmitted through language. In other words, language mediates mental access to phenomena and, therefore, what we perceive is phenomena in the form in which language mediated our perception. The fact of the mediations of mental access to phenomena by language makes knowledge communicable. While language mediates between object and perception, literature is an embodiment of object, language and perception. The impact os some Community based radio stations and two Nigerian National Dalies are highlighted in the Section.

Entrepreneurship Education aids students from all socioeconomic backgrounds to think outside the box and nurture unconventional talents and skills. It creates opportunities, ensures social justice, instills confidence and stimulates the economy. This is why all the papers in part three address different issues in Entrepreneurship Studies such as Value Added Agricultural Output and Macroeconomics Dymics as well as Curriculum Development and Entrepreneurship Education in Higher Education for Self Reliance and National Development.

It has been discovered that Educational Management is both a field of academic study and a collective group of professionals that includes principals, teachers and other education professionals. It is through it that we learn about educational policies, motivation and retention strategies in our educational system. One of the papers in the section that focuses on educational management revealed that income generated from tuition, income generated from Revenue

Yielding Projects, Loan from Bank, and Income generated from Donation have significance relationship with Administrative Effectiveness. Based on the findings of this study, it is recommended that Private universities should tackle funding challenges by establishing more revenue yielding ventures instead of depending on the income generated from the tuition fees.

Today, more than ever, the role of educational technology in teaching is of great importance because of the use of information and communication technologies. With the help of various applications for distance education, the Internet, teachers, and students themselves, they see the advantage of educational technology. This is why a few papers in this issue highlight ideas on how students can acquire teaching and learning skills through the use of modern technologies. Based on the its findings, one the papers in this section recommends among others that Curriculum planners should incorporate concept mapping in the curriculum and Teachers should be train and re-trained on how to effectively use the concept mapping method in the teaching of genetics and biology in general.

Above all, this edition of *KIU Journal of Humanities* features many thought provoking articles. We hope that these educative and informative articles will contribute immensely to the existing knowledge on each topic.

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Part One

Development Administration

Girl-Child Education and Sustainable National Development through Research and Innovation

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Abstract. The wide imbalance between the education of men and their women counterpart in various fields of learning has had out-cries from various quarters and has made the education of the girl-child a very serious issue in the education sector in Nigeria, Africa, and globally. Governments, non-governmental organizations, education planners, managers and other well-meaning citizens, are burdened on how to reduce this imbalance as they become aware of the enormous contributions women can make in nation building through research and innovation. There are obvious indications that Nigeria's quest for national development through research and innovation will not be realized until, as a nation, we recognize, appreciate and begin to involve women in national developmental projects. The paper is exploratory and has critically examined the factors militating against the education of the girl-child, proffered practical solutions that addressed this malaise and examined the role of women in sustainable nation building efforts through research and innovation. The paper noted ignorance on the part of parents, the girl-child and men, culture and tradition, insensitivity on the part of government and inadequate enlightenment as some of the problems militating against the girl-child education in Nigeria. Other factors include male dominance in positions of policy formulation and implementation and failure on the part of various governments in protecting the rights of women in matters dealing with the rights of women. The paper therefore recommended a

massive campaign by government, voluntary agencies and all for the education of the girl-child, government should, as a matter of urgency, enact policies or re-enforce the existing policies that will encourage the education of the girl-child in Nigeria. Through seminars and workshops at the grass-root parents should be encouraged to send their daughters to school and inform them of the dangers of early marriages and the benefits that will accrue to the family and the nation as a whole when these girls are educated. The culture of early marriage should be discouraged and disbanded.

Keywords: Sustainable national development, girl-child, education, research and innovation,

1. Introduction

In Nigeria, and indeed Africa, women are often seen to be relegated to the background. Some traced the anomaly to the creation and fall of man in Eden. When God made man he made the male and female (Genesis 1:27) and the duo were made to be equal - complementing the efforts of one another. The "fall" brought about a distortion in the relationship and supremacy and dominance of man over the woman (Genesis 3:16). Consequently, over the centuries, men have seen women as objects to be toyed with, objects of sexual gratification, slaves and people that are expected to be heard within the confines of their master's home but not to be seen. This tradition has gone unabated. It is sad that this

practice still goes on among the “elite” men of the society.

Recently however, there has been a clarion call on all, governments and the citizens, on the need to educate the girl-child so they too can contribute, through research and innovation, to the sustainable development of the country. This paper examined the education of the girl-child in the Nigerian context and the contributions women have and are still making, through research and innovation, in the sustainable development of the nation. The paper also examined the factors that have militated against girl-child education and proffered practical solutions to address this malaise. The effort of government in this regards were also looked into. The paper finally examined national sustainable development and the expected benefits that will accrue to the nation when the girl-child is given the right education and her potentials are unleashed to give research and development its rightful place in Nigeria.

2. The Concept of Girl-Child

The question is asked, who is the girl-child? The girl-child is “a young female child” (Merriam Dictionary);” a young 15-year-old female” (Girl Dictionary). The National Child Welfare Policy (1989) in Ada (2007) defined girl-child as a person below 14 years of age. Citing Offorma (2009) Omede (2016) defined girl-child as a biological female offspring from birth to eighteen (18) years of age. This period is made up of infancy, childhood, early and late adolescence stage of development. The girl-child is seen as a young female person, who would eventually grow into a woman and marry; she is conditioned to look after the young ones, the home and take care of the kitchen (Omede, 2016).

The UN did not actually provide a clear definition of the girl-child but gave a description: “they go to school, help with housework, work in factories, make friends, care for elderly and young family members and prepare themselves to take on the responsibilities of adulthood. They play multiple roles in the household, society and the

economy”. According to the UN report, even when the girl-child goes to school with her male counterpart they face major challenges that make it difficult for them to attend regularly, sometimes receiving an unequal share of the household tasks due to customary practices. Even in the 21st century many are still subjected to horrific practices, such as female genital mutilation, son preference – often resulting in female infanticide – as well as child marriage, sexual exploitation and abuse. Girls are more likely to experience discrimination in food allocation and healthcare, and are often outpaced and outranked by boys in all spheres of life (UN, 2018).

A girl-child is described as a female child between infancy and early childhood. During this period of the development of the girl child, she is under the custody and supervision of adults who may be her parents, guardian, or siblings who are older or more mature than she is. The girl child is easily influenced by her experience as she develops. She models her behavior during this development process through observation and imitations of those she depends on, and her physical, mental and emotional development start and reach their peak within this stage (Grossarchive 2018).

By putting all the definitions and descriptions together the girl-child is a young female within the age of 15 that is disadvantaged by the mere fact of being a female and thus is exposed to various forms of ill-treatment, abuse, harassment and in many cases does not have access to formal education.

At the 1995 Beijing Declaration one of nine resolutions reached dealt with holding governments accountable for the protection of girls’ rights (beijing20.unwomen.org). According to the UN Report, the resolution on guaranteeing freedom from all forms of discrimination against the girl-child remains only partly fulfilled in most African countries. Carla Koppell of the United States Agency for International Development (USAID) called female education a “silver bullet” for empowerment and progress. Sohoni (1955) noted that “the girl in every woman precedes and shapes the woman in her. And to the extent

to which girlhood is denied, liberated, and fostered, womanhood perishes or prospers”.

3. The Girl-Child Education

Stepp (2016) highlighted ten reasons why it is important to educate the girl-child:

Increased Literacy: Of the 163 million illiterate youth across the globe, nearly 63 percent are female. Offering all children education will prop up literacy rates, pushing forward development in struggling regions.

Human Trafficking: Women are most vulnerable to trafficking when they are undereducated and poor, according to the United Nations Inter-Agency Project on Human Trafficking. Through providing young girls with opportunities and fundamental skills, this billion-dollar industry can be significantly undermined.

Political Representation: Across the globe, women are underrepresented as voters and restricted from political involvement. The United Nations Women’s programs on leadership and participation suggest that civic education, training and all round empowerment will ease this gap.

Thriving Babies: According to the United Nations Girls’ Education Initiative, children of educated mothers are twice as likely to survive past the age of five. Foreign aid for schoolhouses and curriculum development could greatly benefit the African country where thousands of children die per year.

Safe Sex: A girl who completes primary school is three times less likely to contract HIV. With these statistics in mind, The World Bank calls education a “window of hope” in preventing the spread of HIV/AIDs among today’s children.

Later Marriage: As suggested by the United Nations Population Fund, in underdeveloped countries, one in every three girls is married before reaching the age of 18. In a region where a girl receives seven or more years of education, the wedding date is delayed by at least four years.

Smaller Families: Increased participation in school reduces fertility rates over time. For instance in some African countries, women with secondary education or higher have an average

of three children. Counterparts with no education have an average of seven children.

Income Potential: Education also empowers a woman’s wallet through boosting her earning capabilities. According to the United Nations Educational, Scientific and Cultural Organization, (UNESCO), a single year of primary education has shown to increase a girl’s wages later in life by 20 percent.

Thriving GDP: Gross domestic product also soars when both girls and boys are being offered educational opportunities. When 10 percent more women attend school, GDP increases by three percent on average (UN Report, 2016).

Poverty Reduction: When women are provided with equal rights and equal access to education, they go on to participate in business and economic activity. Increased earning power and income combat against current and future poverty through feeding, clothing and providing for entire families.

The sustainability and progress of Nigeria as a nation depend on the success of men and women in economic activities brought about by equal educational opportunity to both boys and girls. While addressing the United Nations General Assembly in 2012, President Obama observed: “The future must not belong to those who bully women. It must be shaped by girls who go to school and those who stand for a world where our daughters can live their dreams just like our sons” (Stepp, 2016). Women are to be recognized and given equal opportunity as the men in all aspects of life endeavors to enable them realize their full potentials.

As noted by Lawal (2016) education is a fundamental human right that should be availed to all citizens irrespective of age, sex and nationality. There are lots of human right instruments that provide for education as a fundamental right, including the Universal Declaration of Human Rights (1948) and the Child’s Rights Act of 2003 that prohibits child marriages and betrothals. In section 21 of the 1999 Constitution of the Federal Republic of Nigeria, any marriage contracted by anyone less than 18 years old is invalid. (Lawal 2016)

4. Factors Affecting Girl-Child Education

In a study carried out by Kobani (2014) to determine the impact of girl-child education on community development, it was found among other things that the factors militating against Girl-Child Education were culture and poverty level of the people. The factors militating against educating the girl-child could be categorized into the following:

- (a) Political Factors: Failure of government to be sincere enough in honoring at the treaties and conventions it entered into with world organizations dealing with the protection of women and the girl-child, and provision of equal opportunity to education for men and women. Even when attempts are made by the political class to uphold some of these treaties there are no political will on the part of government to sustain such attempts.
- (b) Economic Factors: Often the economic realities of a household and the nation come down to making a decision of who should be sent to school first. The male child is always considered first. As observed by (UNICEF 2007) the female is either left at home to take care of younger siblings or sent off as house help to a distance relation or given out to an early marriage or sent out to hawk and make some money for the family.
- (c) Socio-cultural factors: In some cultures in Nigeria marrying young girls of school age is the norm. The girl-child is given out in marriage as a source of huge income earning avenue for the family. Other cultures have the belief that the woman place is in the kitchen. Parents of girls in such cultures find it difficult to send these young girls to school with the erroneous belief that the girls will ultimately get married and give birth to children and end their careers in the kitchen and all the investments made in training such females will be a waste of resources.

According to Omede (2016) certain cultural and traditional practices like female circumcision, early marriages lead not only to absenteeism and distraction, but also to eventual dropout of girls. Moreover he observed that ethnic and traditional values of some religions do not help matters, as they are often perceived with tremendous suspicions. Consequently gender discrepancy in education is sustained by these strong cultural factors.

Perceived Sexual Violence factors: most illiterate parents fear sending their female children to school with the perceived notion that their female children will be sexually harassed, molested and abused in the school by the male teachers and fellow male students. As noted by Obinaju (2014) in Omede (2016), curricular, textbooks and other materials are usually gender-biased. She opines that right from childhood, girls are channeled into stereotyped traditional carrier in form of textbooks illustrations and stories consequently leading to the development of poor self-image at a tender age.

Lawal (2016) noted that the enabling female education is crucial for national development; and the role of women cannot be underestimated. The general belief is that “when you educate a man, you educate one but when you educate a woman, you educate a nation.” This is so because the education of every child starts from the family and the mother is the first teacher. Educating the girl child produces mothers who are educated and who will in turn educate their children, care for their families and provide for their children. She concluded that educating the girl child translates to better health for the future generation, reduction in child morbidity and mortality thus triggering a snowball effect of achieving all other Sustainable Development Goals in a viable manner (Lawal, 2016).

5. Concept of Research and Innovation

There is a growing awareness that research and innovation are central drivers of societal progress and change. Research therefore is to provide policy makers and society with independent research-based knowledge about funding, priorities and organization of research, development and innovation. Innovation is seen as the process of translating an idea or invention into good or service that creates a value or for which customers will pay. In business, innovation often results when ideas are applied by the company in order to further satisfy the needs and expectations of customers (Pettinger 2008).

According to OECD (2002) in Hommes & Mattes (2011) research and development activities comprise “creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications.

The term research and development cover three activities:

Basic Research – which is experimental or theoretical work undertaken primarily to acquire new knowledge of underlying foundation of phenomena and observable facts, without any particular application or use in view.

Applied Research – this is also original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards specific practical aim or objective.

Experimental Development – is systematic work, drawing on existing knowledge gained from research and/or practical experience that is directed to producing new materials, products or devices, to installing new processes, systems and services, or to improving substantially those already produced or installed.

As noted by OCED (2010) innovation goes beyond research and development. It is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations. Innovation activities are all scientific, technological, organizational, financial and

commercial steps which lead to the implementation of innovations. Research and Development is the main requirement for innovations and the output of R&D is measured by patents and publications (Hommes & Mattes, 2011). The rate of innovation in any nation is determined by the “national innovation systems” (NIS) of the country. NIS provides a variety of resources to potential innovators and accordingly a country’s innovation capacity depends on the innovation system and on the nation’s social climate for innovation. Key areas of innovative capacity are Education, R&D, Networking, Financing, Implementation, Competition as well as Demand for innovation (DIW Berlin, 2009). The U.S. Agency for International Development (USAID) notes that Research and Innovation connect bright minds with in-country host organizations to collaboratively apply science, technology, and innovation to complex development challenges (USAID 2018).

Hekkert (2018) also noted that the mission of innovation studies is to understand and communicate the dynamics of emerging technologies and innovations that are relevant for societal problems such as climate change, non-sustainable energy provision, non-sustainable transport system or increasing cost of healthcare. Accordingly the basic starting point of every research is the acknowledgment that innovation is a collective act that involves a multitude of actors.

Nigeria has made attempts at establishing and formalizing an institute for industrial research - the Federal Institute of Industrial Research, Oshodi (FIIRO). However, as noted by Obuh, (2014) in Amanze, (2017) the Nigeria’s investment in Research and Development accounts for 0.01% of global expenditure. The Director of FIIRO lamented over the poor funding of research and development in the country. In a paper titled “Investment in research and Development: A panacea for Sustainable Job Creation in Nigeria” the Director stated that there are huge opportunities and possibilities for wealth and sustainable job creation if the government at every level will partner with the

private sector and universities in Research and Development/Innovation.

To make a meaningful impact in Science, technology, Engineering and Mathematics Otti (2017) suggested that government must create special education fund to support Research and innovation and make companies investments in Research and Innovation and Development tax deductible. Universities are encouraged to market their products – new inventions and discoveries - the way companies market their products. Universities are to market Research results and provide feasibility studies and run joint ventures with government and companies and engage government, analyze government policies, produce papers and host seminars, take position and challenge orthodoxy (Amanze, 2017).

Nigeria has produced vibrant and outstanding women, who against all odds, have excelled in their areas of endeavors and have contributed meaningfully to national development - Professor Alele Williams, Professor Rukaiyyatu Rufai, Mrs Farida Waziri, Chimamanda Ngozi Adichie, among many others (Lawal 2016). Unfortunately, the United Nations still report that the enabling environment for women to actually exhibit their potentials and contribute meaningfully to sustainable national development has been lacking despite widespread progress in improving the health, nutrition and education of children, the situation of girls continues to be disadvantaged compared to that of the boys in many parts of the world. The UN reports that parents still prefer to have a son to a daughter, girls are still being seen as less important to family and community life than boys; girls are not encouraged, as much as boys, to further their studies and develop their careers; many girls are still being raised in an environment of neglect, overwork and often abused simply because they are female; in some countries girls are fed less than their brothers, forced to work harder, provide less schooling, and denied equal access to medical care; girls are forced to marry early and face greater risk of dying in adolescence and early child hood because of early and closely spaced pregnancies (UN, 1995). In the light of the above listed

unfavorable conditions in which the girl-child finds herself, the UN Committee on the Rights of Women has therefore called on governments to pay special attention to laws, policies and programs for girls.

6. Sustainable Development

According to Brundtland (1987) sustainable development is the development that meets the needs of future generations to meet their own needs. Sustainability is also defined as meeting the needs of the present without compromising the ability of future generations to meet theirs. It has three main pillars: (1) economic, (2) environment and (3) social. These three pillars are informally referred to as - people, planet and profits (Beattie (2017).

Environment Pillar: deals with the impact of an organization on the environment. However it is not easy to capture all the impact an organization's operations have on the environment – the cost is not fully determined because of some “externalities” that are not being captured. Companies or organizations do not always concern themselves with calculating the impact of waste water, carbon-dioxide, land reclamation and waste in general on the environment. The impact of these factors is not actually calculated by companies because they are not the ones at the receiving end. Consequently, bench marking has become the norm to track and report the impact of these wastes on the environment (Beattie 2017).

The Social Pillar: Beattie (2017) also noted that the social pillar ties back into the concept of “social license”. A sustainable business must have the support and approval of its employees, stakeholders and the community it operates in. As much as there are many methods of achieving this, it all comes down to treating fairly and being a good neighbor and community member both locally and globally.

There are four means of fulfilling the social mandate – these include:

- Retention and engagement strategies of the organization

- Being more responsive to employees' benefits such as better maternity and paternity benefits
- Having flexible work schedules for employees
- Providing learning and development opportunities for workers

For community engagements the organization has to give back, including fund raising, sponsorship, scholarship and investment in local and public projects. On global social scale, an organization needs to be aware of how its supply chain is being filled for instance, is child labor going on into the end product? Are people being paid fairly? Is the work environment safe? (Beattie, 2017)

The Economic Pillar: of sustainability is where most organizations are doing well. To be sustainable, a business must be profitable. However, profit cannot negate the other two pillars. Activities that fit under the economic pillar include compliance, proper governance and risk management.

Organizations are provided with a larger purpose and some new deliverables for companies to strive for and help them renew their commitments to basic goals like efficiency, sustainable growth and shareholders' value, public goodwill and better reputation. Sustainability encompasses the entire supply chain of business, requiring accountability from primary level, through the suppliers all the way to the retailers.

Sustainable Development Goals (SDGs) – also known as the global goals are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and posterity. The SDGs are an inclusive agenda (UNDP, 2016). There are 17 goals of Sustainable Development that are anchored on the success of the Millennium Development Goals. These are – (1) No poverty; (2) Zero hunger, (3) Good health and well-being; (4) Quality education, (5) Gender equality, (6) Clean water and sanitation, (7) Affordable and clean energy, (8) Decent work and economic growth, (9) Industry, innovation and infrastructure; (10) Reduced

inequality, (11) Sustainable cities and community; (12) Responsible consumption and production; (13) Climate Action, (14) Life below water, (15) Life on land; (16) Peace, justice and strong institution; and (17) Partnership for the goals.

According to the Earth Summit of 2002 in Melbourne Australia – called Melbourne Principles – four pillars of sustainability were developed: Cultural vibrancy, Economic prosperity, Environmental prosperity and Social justice: (Sustainableantigonish.ca, Four Pillars of Sustainability, 2002).

Quora (2016) provided 8 points on how to achieve SDGs –

- To eradicate extreme poverty and hunger
- To achieve universal primary education
- To promote gender equality
- To reduce child mortality
- To improve maternal health
- To combat HIV/AIDS, malaria and other diseases
- To ensure environmental sustainability
- To develop a global partnership for development

These are laudable programs for any nation to embark upon. The challenge has always been the sincerity and integrity of those charged with the responsibility of driving these projects. As noted by Omotola (2008), corruption and incompetence are the major factors that hinder the achievement of these SDGs in most African countries.

7. Girl-child and Sustainable National Development

The education of the girl-child is very vital and cannot be over emphasized as it enables her to accomplish things that she cannot otherwise. Armed with the weapon of education, she learns and applies information, attitudes, values and skills previously unavailable to her. The education of the girl is, therefore, very necessary in view of the benefits that will accrue to her, her immediate family, her community and the larger society.

Women who attended school often have healthier families. These women are more likely to seek medical help from clinics or doctors because they can read. They can also read nutritional labels and provide their family meals that promote growth and lower health risks and hazards.

Education also teaches young ones the importance of keeping themselves and their households clean and safe, thereby look attractive to the occupants or the inhabitants. The United Nations Children's Emergency Fund (UNICEF) has helped and supported in revitalizing the education of girls in Nigeria through funding, raising awareness on girls' education via public awareness campaign, rallies and seminars, building schools' technical capacity to develop girl-friendly school environment and helping communities to sustain girls' education.

Girl-child education is a matter of concern for nations of the world. Annan (2001) noted that:

"No development strategy is better than one that involves women as central players. It has immediate benefits for nutrition, health, savings and re-investment at the family, community and ultimately, country level. In order words, educating girls is a social development policy that works. It is a long-term investment that yields on exceptionally high return. Girl-children are discriminated against thereby making it difficult for them to exercise their rights; they are victims of various traditional/cultural practices, they suffer degradation, they are objects of poverty, their faces are only to be seen but their voices not to be heard, they are seen as being less valued than their male counterparts; they are the inferior set, their place is in the kitchen".

The importance of educating the girl-child is further brought to the fore by Abacha (1997) when he stated his view to support the fact that development has to be participatory and sustainable.

He stated that: *"progress is only feasible if we create a Nigeria made up of a united people with a united purpose... our nation needs men and women who are bold, and imaginative, dedicated and committed, people who put honor, service and patriotism above everything else.*

These men and women are not only needed in politics, they are also needed in business, in our traditional institutions, youth organizations, in academics and other professions".

The indication from the above is that society should stop looking down on women. They are to be seen as first class citizens and not rated as second-class citizens. Educating the girl-child (who transforms later into a woman) will empower her to be strong and resourceful in such a way that she is able to contribute maximally to the sustenance and development of the society in which she lives. According to Alkali (2000), if all limiting barriers against women are removed, "women can lead, lead to the battle, if necessary, fight for her society and win for her people". Educating a girl child therefore will bring about self-awareness, increased self-assertiveness in the society, raising the consciousness of women to encourage their participation in national development (Awe, 1992). It is therefore important that particular and close attention be paid to the education of the girl-child. Finding the right solution to the issue of girl-child education will not only move the girl-child forward but pushes the nation to a greater height. The Instructional Manual on the Advancement of Nigerian Women and the Role of National and International Agencies (1996) states that to promote the advancement of Nigerian women, it is important that individuals, groups, community and government at all levels have a duty to take action in the following areas:

- Reducing the rate of poverty among women
- Making sure that girls and women have equal opportunities for training and education as boys and men
- Making sure that girls and women have adequate opportunities for proper health care.
- Preventing all kinds of violence against women and girls.

8. Conclusion

The contribution of the female child/woman to national development cannot be over-

emphasized. What is required is for the girl child to be educated in order to acquire knowledge and skills needed to advance her status for social interactions and self-improvement. Education will prepare her to face the realities in society and teach her to be a good wife and mother. When she is educated, she realizes the full potentials endowed in her; she discovers to be whoever and whatever she wants to be. With education, she would break the shell of ignorance and open that of self-discovery. It is only then that she can contribute meaningfully to national development. The strengthening of the Child's Rights Act and ensuring its implementation in all the states of the federation will help to checkmate the indiscriminate abuse of the girl child. When girls are not educated, they remain dependent on their parents before marriage, on their husbands after marriage, and on their children if eventually their husbands die. It is however expected that the situation with girls' education will improve, so that girls can feel like intelligent members of society and explore their potentials in contributing to their immediate society and the nation as a whole.

9. Recommendations

The following general recommendations are proposed as action plans to curb the imbalance between the male and female education in Nigeria, sub-African countries and communities so that women can discover their potentials and use them in bringing about sustainable national development:

- Re-enforcing the laws that protect the girl child: This includes laws that punish those who abuse girls, as well as laws that punish parents for not sending their daughters to school. Nigerian policy makers should seriously consider the issue of the girl child education in Nigeria in order to ensure a better future for the whole country.
- Encouraging parents to send their daughters to school: In addition to punitive measures, parents need to be encouraged to provide education for their girl children. It means providing

- more affordable or even free education for those who struggle financially.
- Providing better healthcare for girls: Girls need to have better access to information about their health, especially their reproductive health. Additionally, they need better healthcare that focuses more on the specifics of the female human body. All of this will help to reduce teenage pregnancy rates, improve the girls' general health and, subsequently, encourage girls to seek education.
- Offering various opportunities for female school dropouts: Even if girls have to leave school prematurely, they should be offered alternative opportunities to finish their education. This might take form of evening schools, online courses or extramural education.
- Moving away from the traditional view on women's role towards gender equality: More women need to speak up on the importance of girl child education. Girls should not feel lesser because of their gender. Their achievements have to be celebrated as much as boys' are.
- Employing more female teachers: When girls have someone to look up to, they will be encouraged to work harder and achieve more. They will see a positive example of the transformation that education can make in their lives. It is expected that these recommendations will assist in fostering an environment that will encourage the education of the girl-child for sustainable national development.

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Education and Human Resources Planning for Sustainable National Development in Nigeria

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Abstract. This paper discusses the concept of Educational Planning and human resources development in details with the attempt to uncover the various relationships that exist between education and human resources development. It further reveals the important of education in improving human capital, some relevant theories and concepts of human resources development planning were examined as the basis for establishing the fact about the indispensability of educational planning on investment in human capital. Some limitations of educational planners in producing needed manpower in the economy as well as some relevant recommendations were also provided.

Keywords: Education, Human Resources, Planning, Sustainable, National Development.

1. Introduction

Education is generally accepted as the engine of growth in human beings. People send their children to schools so that they can acquire cognitive and technical skills. But such belief rests on the quality and quantity of education in any country.

Education is a major item in any national development. It is needed both in developing

and developed countries. Olaniyan and Okemakinde (2008:157), refer to education as the engine of growth that will rest on the .quality and quantity of education in any country. This is because education is highly needed to improve the production capacity of a nation.

It is a means where individuals acquire skills to improve themselves and function better in their society. The economists refer to education as both the consumer and capital good since it offers fitness to a consumer and also serves as an input into the production of other goods and services. This concept of education as capital good relates to the concept of human capital, people act to improve themselves, not for immediate consumption, but with the expectation of future gain, and such improvement amounts to investment capital. The categories of human investment activities include formal education, adult study programs, and on-the-job training. It seems education is the main investment in human capital. Hence, many developing countries including Nigeria are investing heavily in education to boost their human capital so as to improve in production.

In Nigeria, we have seen a rapid increase in the establishment of more primary, secondary

schools and tertiary institutions after independence to date.

Investment in education is an investment in anticipation for return in form of human product (manpower). It depends on the quality of the input of educational planners as well as from the government and other sector of the Economy to bring out the best expected of it. The products are sometimes produced inadequately in some sectors while it is more in supplies in some other sectors thus brought about wastage.

According to Oke (2010) Human resources development (human capital) level could be ascertained by examining the country's impact on: Science and Technology, Youth development, Political stability, Health care delivery, Population management, Productivity, Women empowerment, Political participation, Self-help development programme

2. Concept of Human Resources and Educational Planning

Planning is the development and statement of clear goals, and the design of efficient and effective strategies to achieve these goals (Davis 1994). It is a process through which scarce resources could be allocated as efficiently as possible, in order to better respond to specific needs, in this case countries educational needs.

Educational planning is describing or determining events, conditions or needs of some future point in time. For example: Forecasting number and types of students and expansion of facilities needed for them. Educational planning is a preparation phase in the decision making process. It helps to determine the optimal decision.

Educational planning is also perceived as a means of generating relevant present or future goals and objectives for the organisation.

3. Human Resources and Manpower Planning

Human resources are the Manpower input needed in the production of goods and services in the nation.

Manpower Planning is the forecasting, analyzing and preparing the skilled labour/human resources input required in the economy.

First attempt to relate educational development to manpower needs was in 1959 under the chairman of Sr.Eric Ashby. The commission was to conduct an investigation into Nigeria – post school certificate needs. (1960 -1980) to avert the teething socio-economic and political problem of the nationhood so as to employ right caliber and service of people to handle political, economic, diploma and other sector at independent.

Country employed the services of an economist – Prof. Fred Harbison to project the manpower needs in the senior and intermediate categories during 1960 – 1980. The problem of this planning was lack of standard and accurate data for a scientific projection.

4. Human Capital Theory

Human capital theorists stressed that education is very necessary for the production capacity of a nation therefore it must be well planned. Human capital is the most valuable assets and needs to be mobilized to enhance social economic environment.

Therefore, human resources constitute the basis of the wealth of a nation and her prosperity. (Psacharopwos and Woodhall, 1997:102; Oke, 2010:18). These theorists considered educational investment in human capital (especially formal) to be more valuable than the physical capital. This is the formation of human resources to aid production. This includes all expenditures used in education and training that would enhance productive capacity of workers. In other words, money is spent to harness human skills for production. This is because education sharpens and makes one more competent or prepares one for production.

Education, as an investment, produces human capital that is skilled and adaptable to improving the national economy / wealth. Capital refers to total wealth used to aid production, while the nation's capital refers to total stock of wealth

that the nation has at a particular time that aids production of wealth or more products.

What education does, Manifests in the society because every sector of the economy depend on it products for development.

Fagerlind and Saha (1997:135) assert that human capital gives a basic justification for large public expenditure on education both in developing and developed nations. This assertion was proven by the work of Robert (1991), shows how East Asian countries like Hong Kong, Korea, Singapore and Taiwan have achieved unusual rates of economic growth as a result of large investment in education. This was exactly the conclusion of World Bank on the economic growth of the East Asian (1995). Robert also developed a human capital model that shows that education and the creation of human capital was the cause for both the differences in labour, productivity and the differences in overall levels of technology in the world (1991:409).

Therefore, education is an engine that accelerates economic growth and development in any nation or society. A country that makes large investment in qualitative education of her population is making a productive population. Her economy will grow strong.

5. Education and Labour Market

The link between education as a form of human capital investment and industrial growth rests on the labour force and thereby the value of the labour input to the production processes of the local economy (Welch, 1975:58). Human capital theorists argue that education is the primary cause of higher earnings.

Education and relevant skills are necessary condition for good labour market outcomes for individuals. Evidence suggests that cognitive skills have large economic effects on individual earnings and on national growth (Hanushek and Woessmann, 2007:307) and that workers' productivity depends both on years of education and what is learned at school (Heckman, layne-Farrar and Todd, 1995; Murnane, Willett and

Levy 1995). The basic cognitive skills as used here is literacy (ability to read and write) and numeracy (the ability to perform simple mathematical operations).

Education, no doubt plays an important role in improving labour market outcomes. The standard human capital model is based on the idea that individuals choose their optimal level of education so as to equalize marginal returns and marginal costs (Oke, 2010). In Nigeria, many parents choose courses for their wards due to how marketable they are in the labour market. They (the parents) think of giving their wards the best education so as to better their chances of acquiring well-paid jobs and saying bye-bye to poverty (Olaniyan and Okemakinde 2008:161). This clearly shows how education is linked to labour market.

Education and relevant skills remain the main determinants of good labour market outcomes for individuals. Even though there are a large number of factors, yet the creation of a highly skilled workforce with the ability to access, adapt, apply and create new knowledge and technologies are what a country's development and edge in the global economy depend on. Education planning plays a central role in preparing individuals to enter the labour force and in equipping them with the skills needed to engage in lifelong learning experiences. Vast research literature provides evidence of the value of investing in education to develop human capital and of its contribution to economic development and growth (See, for example, Hanushek and Kimko, 2000; Krueger and Undah, 2000; Hanushek and Woessmann, 2007). The primacy of education stems not only from its fundamental rate of individual earnings, but also from its non-economic benefits such as lower Infant mortality, better participation in democracy, reduced crime, and even the simple joy of learning - that enhances and enriches the quality of life and sustains development (Case, 2001).

6. Interdependency of Education and Nigeria Economy

Every country is naturally endowed with some natural resources - e.g in Nigeria we have

forests, good farm lands, oil, tin, coal, columbite, limestone, etc, but must be properly tapped and utilized by good human quality. Education produces this manpower for the economy, thus every sector of the economy depends on education. There is a lot to be learnt by the higher institutions from the experiences of entrepreneurs.

Similarly, the entrepreneurs from different economic sectors need to harness and utilize the expertise of people in tertiary institutions through the following ways:

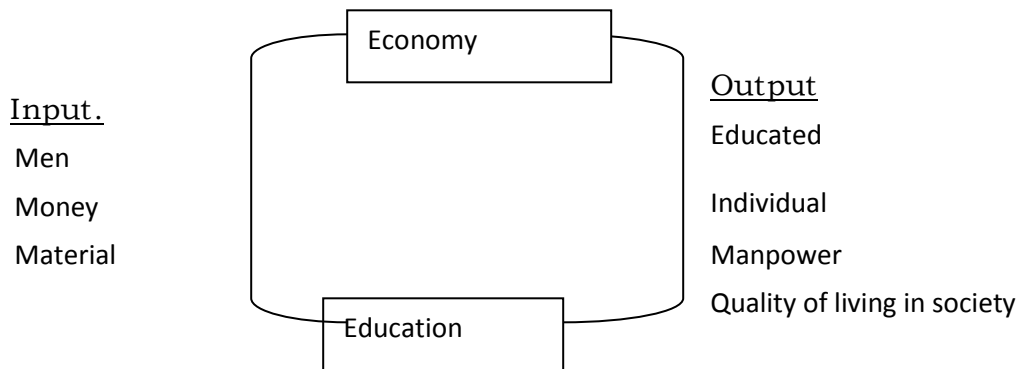
- Inviting some academics to spend some time in their organizations e.g sabbatical leave.
- Sending some of their staff for in-service training in tertiary institutions.
- Visiting tertiary institutions on invitation to share their experiences with students and staff e.g seminar, workshops.
- Financing special research and consultancies for those related to their businesses.

- Also undergraduates can be sent for practical, industrial trainings and excursion, here experiences can be shared.

In the like manner economy also depends on education in the following ways:

- Education of human beings raises national economy;
- Equipped producer with method of production that is better(skill acquisition)
- Enhances attitudinal changes
- Afford producer and individuals' information and knowledge to make wise decision and relevant production.

This strong relationship between education and the economy of a country can also be explained with the following diagram:



Source: Oke (2010). *Economics and planning of education*

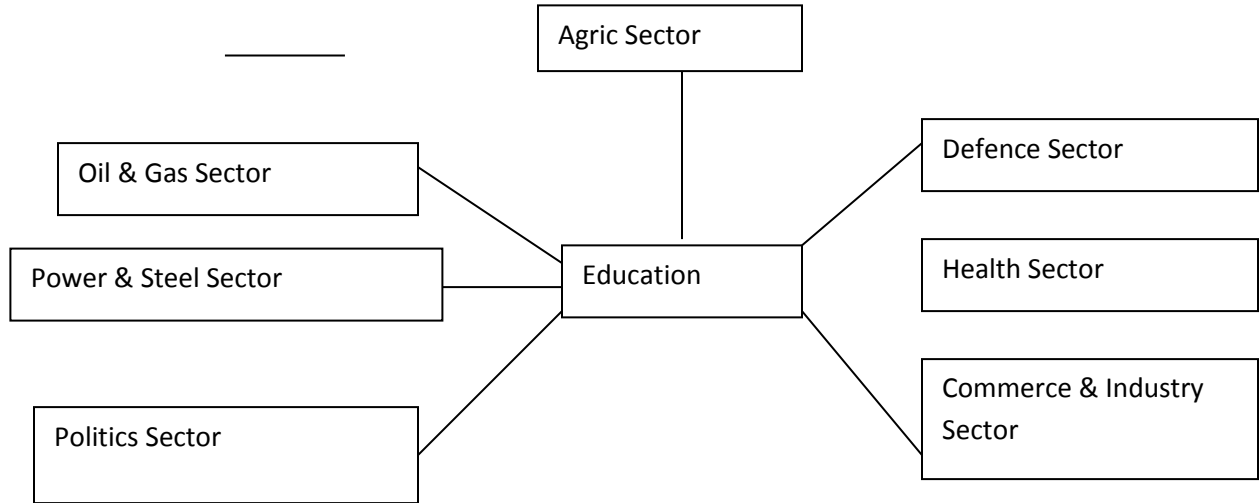
- Education is the centre of every other economic sector. The relationship between the economy and the education is two ways:
- Society allocates its wealth to education sector;
- Education produces skills manpower to work in economy and increase output or economic growth.

Malfunctions in Nigeria economy therefore, means that the two have not been relating well. Economy should be able to send enough resources to the education sector, and education should be able to produce skilled manpower for the economy. If education produces poor manpower, the economy remains under developed.

The economy needs high quality manpower, but the country is not ready to invest in education, thus half-baked graduates are produced and the economy cannot absorb them.

Secondly, because of lack of proper educational planning, it expands faster than economic growth, and as such, economy has no capacity to absorb all the graduates from educational sector.

(See the diagram below.)



Source: Oke (2010). *Economics and planning of education*

The economy of a nation is its manpower strength or weakness, this is also known as wealth or poverty some countries are rich as a result of natural endowment. Nigeria is a rich country because she is blessed with natural resources such as oil, mineral deposits, and agricultural goods like cocoa, Palm produce, timber and groundnuts. A country can also be rich as a result of industrial or technological growth.

However, a nation with or without natural endowment depends on education in order to attain its full economic potentials in which educational planners have roles to play. This is why many scholars have written that education as an investment in human capital has great effect on the economic development of any nation or country (Hanushek and Kimko, 2000; Krueger and Undah, 2000; Hanushek and Woessmann, 2007).

7. There is inter-dependency between education and the sectors

Economic sectors finance special Educational research and consultancies for those related to their businesses.

Undergraduates can be sent for practical, industrial trainings and excursion, here experiences can be shared.

The available human skill and labour force require adequate training to contribute to economic growth.

The developing economy invests on education to enhance production of needed manpower.

Educational sector organizes seminars and workshops where experiences are shared, this improves human resources in economic sectors.

Economic sectors invest in education so as to expect huge and quality product from education (man power) needed in the economy (Oke, 2013).

Countries that are endowed with natural resources as well as those that have reached industrial or technological development all depend on education. VanDen- Berg (2001:87) asserted that countries that are at the fore front of technology also have the most educated population.

However, in Nigeria educational development has reached a set certain level of growth (after independence, rapid increased in primary, secondary school and tertiary institution) yet the effect on the economy is not so positive.

In Nigeria, manpower needs for the economy has not been accurately forecasted by the education sector because:

- Nigeria depends on primary or subsistence products for national income,
- Nigeria is in a hurry to expand education sector without regard to the economy,
- Nigeria is ignorant of the mutual relationship between education and the economy.
- Education capital has gone into privately remunerative but socially unproductive activities
- There has been slow growth in the demand for educated labour
- The education system has failed such that schooling provides few (or no) skills
- The absorptive capacity of economic sector in Nigeria has been inelastic, especially at the macro level. In an economy that is monotheist, and not doing well, it is dangerous signal.

In Nigeria, there is a general complaint of unemployment, yet there are sectors of economy without manpower. This means the educational system is not relating well with the economy. It is the industrial and technological areas that are most hit with the problem of shortage of manpower.

Oke (2013) stressed that, there are many skilled Nigerians who are working in other countries because they claim that there are; Poor management of labour force, Nigerian economy is poor, and cannot pay well, Politicians do not see it necessary to use the right manpower, Weakness of Nigerian currency, Lack of support to investors by the government and Insecurity of the experts.

8. Economic Growth and Educational Planning

Economic growth and educational planning are closely connected to each other. When education is properly given and taken accordingly, it fosters economic growth. This economic growth is in terms of increase in productivity and upward social mobility as a result of increase in

wages. More quality education leads to faster economic growth. Education could be seen as an investment in human capital. Investment in human capital is the greatest economic investment, which serves as a major factor for economic growth.

Education is concerned with the transmission of skills, knowledge, vocation and culture and this is usually done through teaching, learning, research and dissemination of the findings for ultimate utilization (Bosah, 1998). "The benefits of education ... are measured in terms of the extra lifetime incomes or earnings enjoyed by educated workers, compared with workers with lower levels of education or illiterate workers" (NTI, PDE 201:104). Economic growth in the other hand is a sustained increase over a significant period, in the quantity of material goods and services produced in an economy. One important measure of economic growth is change in the per capital income.

Since human beings are the most significant "engine" for economic growth, anything that will make human beings more efficient will inevitably lead to economic growth. Education as defined earlier on makes human beings more knowledgeable, skilful and productive. Hence, education is a key element among others that foster economic growth, Education leads to higher productivity, poverty alleviation and upward social mobility.

9. Need For the Use of Manpower Forecasting in Educational Planning

The production of skilled labour force for a country has to be controlled as the aim is to produce skills that will be required by the economy, and which are in short supply. In doing this, it is necessary that the educational planners devise means of identifying the type and quantity of manpower that the country requires in the future so as to achieve the estimated economic growth targets. This process is known as manpower forecasting.

There are many reasons for the use of manpower forecasting in educational industries among which are;

- Insights into future manpower needs of the economy and the planning of how it would be met.
- To strengthen the interdependency between economic sector and country's educational industry.
- To identify what and how much of manpower to produce, including type and level of education needed.
- To avoid the production of skilled labour force without gainful employment resulting from socio-economic and political problems
- To ensure balanced resources estimation in educational programme planning.

Manpower forecasting, therefore involves an analysis of the skilled manpower requirement for which a calculation levels of education required to meet these requirements.

10. Manpower Forecasting Methods

In (Oke, 2010), manpower forecasting is under taken in various ways or methods, namely:

Employers' Opinion: Use questionnaires to get kind of labour required in future by employers. This formula is $M = (L - R_1 - D - R_2 - G)$.

Harbison' "Rule of Thumb": Prof F. Harbison adopted it for Nigeria in 1960 in the absence of statistical data. His ratio of 1:2:3 for expected income growth, senior staff and intermediate staff respectively was not derived on the basis of any empirical testing or scientific analysis. He used 4% as income growth rate for Nigeria p.a in the 1950s, thus 4:8:12.

Incremental Labour Output Ratio: It is used mostly in the Netherlands and Sweden. It requires use of time series data by years for a period of time, based on output and labour relationship. The time series data required are usually those on output per man, classified sector, occupation and educational qualification. The method is adopted in the belief that an increase in output level will determine the likely increase in labour demand. Output here refers to industrial output or national income.

Density Ratio: Also known as "Ratio of saturation" has two stages:

a) Estimation of a stable fraction of qualified manpower in the labour force of an economic sector of a country, and

b) The stable fraction obtained is applied to the population forecast of the total labour force as distributed amongst the various economic sectors. It is more convenient in socialist countries formula:

$$\frac{\text{Qualified staff in a sector economy}}{\text{Total No. of workers in the sector}}$$

International Comparisons: It is used by countries without adequate manpower data and information but have similar characteristics with other countries that have data of such, which include:

- Productivity Level
- Occupational groups, and
- Level of educational attainment.

Usually countries compared are not at the same level of development; e.g Nigeria and South Africa.

The Parnes – MRP: It was an approach developed by a group led by H.S Parnes in 1962. It was the effort of the organization for Economic Community and Development (OECD) to produce educational plans that would be common to countries in the Mediterranean Region, this is the name Mediterranean Regional Project (MRP). The method uses projected target of GNP or GDP (NNP) in some future years, determined by an economic development plan, to supply educated manpower required to achieve the targeted GNP or GDP. It has four stages namely:

The targeted GNP or GDP in the future years is broken down in major economic sectors.

The average labour-output (L/O) coefficients are applied to each sector GNP or GDP

target to derive the estimate of future sectorial employment.

c.) The projected sectorial employment is distributed among a number of occupational categories, and

d.) The occupational structure of the labour is converted into an educational structure by applying a standard measure of the level of education required to perform successfully in each occupation.

11. Challenges of Education Planners in Producing Needed Manpower

In real sense, the problem of Nigerian economy is not because the education is poorly planned, but there are extraneous factors frustrating education from producing the right manpower. According to (Oke, 2010) These are: "Instability in government / policies, Greed and selfishness, Religious wars/tribal conflicts, Inability to properly implement the educational policy, Unqualified staff, Maladministration/misplacement of priority, Corruption/embezzlement, Inadequate educational facilities, Tribalism/nepotism, Inaccurate data for policy formulation, Poor educational financing, Fiscal indiscipline and Social/Economic crisis". etc.

12. Recommendations

Government needs to have full and definite control over the price of education.

Education planners should be given useful clauses about education requirements to those people like semi-skilled and unskilled workers in the cities and vast majority of workers that live in rural areas.

As planners make plans for educational development, there is the need to put into consideration the capacity of economic stars of personnel.

Adequate funds should be allotted to education for the plans on blue print to be carried to the later.

Team of planners should be comprised of capable hands from various fields for efficiency. Educational management nowadays is faced with various biases and backslides, therefore need a Functional and coherent Administrative, Planning, Scheduling, Decision making and controlling techniques to save them from these management problems

13. Conclusion

The Connectivity between education and economic growth cannot be overemphasized. Eric A Hanushek and Ludger Wobman (2007) of the World Bank gave a succinct summary of the

connection between quality education and economic growth. They posit that:

For an economy, education can increase the human capital in the labor force, which increases labor productivity and thus leads to a higher equilibrium level of output. It can also increase the innovative capacity of the economy-knowledge of new technologies, products, and processes promote growth. And it can facilitate the diffusion and transmission of knowledge needed to understand and process new information and to implement new technologies devised by others, again promoting growth (2007: 3).

Educational planning is not the only factor responsible for human development and economic growth; however, this paper has shown that it is the greatest factor. In fact, it would be right to say that the level of the economic growth of a given society or country is directly proportional to the quality of education made available to its citizenry.

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The Impact of Financial Institutions Intermediation Activities to Economic Growth in Nigeria: 2000 – 2016

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Abstract. This study examines the impact of financial institution intermediation activities to economic growth in Nigeria covering the period of 2000 to 2016. The study describe the operation of the Nigeria financial system and also to analyze the role played by financial institution in the economic growth of Nigeria.. Data for this study were basically secondary data collected from CBN statistical bulletin/release of relevant government agencies like national bureau of statistics and national population commission,. Data were analyzed using the ordinary least square (OLS) simple regression and Analysis of variance (ANOVA). The linear regression showed that there is a positive impact of financial institutions intermediation activities to economic growth in Nigeria. The (SPSS) was used to analyze and validate the hypothesis. Findings reveal that financial institution intermediation activities has contributed to economic growth and if in future this intermediation activities continue there must have been a strong and reliable impact of financial institutions intermediation in Nigeria. Therefore more financial institutions should be established in Nigeria to encourage and promote industrialization or the established financial institution should be allocated with more funds.

1. Introduction

1.1 Background of the Study

The financial sector of an economy plays a vital

role in the development and growth of the economy. The development of this sector determines how it will be able to effectively and efficiently discharge its major role of mobilizing fund from the surplus unit to the deficit unit of the economy. This sector has helped in facilitating the business transactions and economic development (Aderibigben,2004).A well-developed financial system performs several critical functions, to enhance the efficiency of intimidation by reducing information, transaction and monitoring costs. If a financial system is well developed, it will enhance investment by identifying and funding good business opportunities, mobilizing savings, enables the trading, hedging and diversification of risk and facilitates the exchange of goods and services. All these result in a more efficient allocation of resources, rapid accumulation of physical and human capital and faster technological progress, which in turn results in economic growth (salami & Adedipe, 2013) Development in the real Sector as noted by Ajayi (1995), influences the speed of growth of the financial sector directly, while the growth of the finance, money and financial institutions influence the real economy.

The financial sector consists of a group of related institutions, market instrument and operations that interact within an economy to provide financial services. Example of such institution includes deposit moneys, Discount House, Primary Mortgage institutions, finance companies and Bureau-de-change etc. The

financial sector is linked to the real sector of the economy in the following ways:

- The financial sector generate wealth in the economy and facilitates the exchange of goods and services
- It facilitates the process of resources mobilization
- It mobilizes saving and changes the term structure of savings
- It channels saving into production investment and
- It promote the integration of the domestic economy unto the global finical system
- It enables and enhances the smooth implementation of macroeconomic policies.

Economic growth is a gradual and steady change in the long-run which comes about by a general increase in the rate of saving. it has also been described as a positive change in the level of production of goods and services over a certain period of time. Economic growth is measured by the increase in the amount of goods and services produced in a country. An economy is said to be growing when it increases its productive capacity which later yield more in production of more goods and services (Jhingan, 2003). Economic growth is usually brought about by technological innovation and positive external forces. It is by technological innovation and positive external forces. It is the yardstick for raising the standard of living of the people. (Oluoyemi,1995) .

1.2 Statement of Research Problem

The role of financial institutions in economic growth has attracted the attention of researchers and policy makers in the last century. The findings of these studies are not without controversy: while some studies find that financial institutions has been instrumental in accelerating economic growth, others have suggested that it has not been very significant. The Levine (2005) and Beck (2009) argue that the positive effect of financial institutions over economic growth can be explained by mechanisms. According to them financial system provides means of payment that facilitates a greater number of transactions,

makes possible the allocation of resources to their most productive economic use, through the effective evaluation and monitoring of investment project, improves corporate governance and contributes to risk management.

Consequently in the Nigeria context, there has not really been a justifying ground to conclude whether financial development stimulates economic growth or not. The major challenge intermediation process is facing in Nigeria is the informal sector. Large percentage of the citizens are yet to be expose to the intermediation services due to lack of trust, confidence and convenience, for financial intermediation to be efficient and glamorous in Nigeria

Also the Nigerian financial sector, like those of many other less developed countries is highly regulated leading to financial disintermediation which retarded the growth of the economy (Adekunle , 2013). They also argued that the link between the financial and the growth of the economy has been weak. Stressing that the real sector of the economy, most especially the high priority sectors which are also said to be economic growth driver are not effectively and efficiently serviced by the financial sector. As further reveals in Adekunle (2003), the banks are declaring billions of profits but yet the real sector continues to be weak thereby reducing the productivity level of the economy. Most of the operators in the real sector are folding up due to inability to get loan from the financial institutions or the cost of borrowing was too outrageous. It is against these backdrop that the study is undertaken to determine the impact of financial institutions intermediation activities in economic growth in Nigeria from 2000 to 2016

1.3 Objective of the Study

The broad object of this study is to determine the impact of financial institutions intermediation activities in economic growth in Nigeria from 2000 to 2016 and the specific objectives are

- To examine the relationship between financial sector development and economy growth in Nigeria.
- To examine the relationship between financial sector development and

- economy growth in Nigeria.
- To examine the relationship between financial sector development and economy growth in Nigeria.

1.4 Statement of Research Hypothesis

Ho: Financial Institutions intermediation activities has no impact in Nigeria's economic growth

Hi: Financial Institutions intermediation activities has impact in Nigeria's economic growth

2. Review of Related Literature

2.1 The Concept of Economic Growth and Bank Performance

Economic growth can be defined as an increase in a nation's output, which is most commonly measured by the gross domestic product (GDP). Cecchetti and Kharroubi (2012) The benefits stemming from economic growth are wide reigning (Harper, 2011). Ekpeyong and Acha (2011) also affirm that expansion of economies with intent to improving the welfare of citizens is a desirable goal and this further explains why economic literature is replete with theories and studies required by economies to achieve sustainable growth.

Amongst other indices, banks' performance is basically evident in their level of efficiency and ability to manage costs and post healthy profit figures, but more importantly money creation.

Performance reflects in several ways, which include, improved lending to various sectors of the economy, due to enhanced capital base; stronger banks with healthier balance sheets; innovation in banking products/service delivery; improvement in technology and globalization of operations in the industry; employment generation especially at the middle and lower levels of the industry in the short and long run; increased branch network, thereby aiding employment of both capital and labor; more challenges on the supervisory authorities especially in terms of capacity and capability thereby aiding better management of the

banking/financial aspect of the economy; adherence to preferential treatment (by policy direction) on certain priority sectors (like agriculture and manufacturing)

The Apex regulatory body has a majority role in ensuring optimal performance by the banks. Developing the real sector of any economy is not a matter that should be left to chance variables of monetary policy are consistently achieved. Defaulting debtors should be pursued through legislation to ensure public funds are not subjected to waste and also to instill discipline in the behavior of borrowers. These will ensure banks perform optimally as more will be increased vibrancy in the money and capital markets, thus enhancing economic growth.

According to Otto (2012), there are four vital components of financial system. These include; financial institutions, financial markets, the regulatory authorities and financial instruments. The study also noted that the system in Nigeria has undergone remarkable changes in terms of ownership structure, the depth and breadth of instruments employed, the number of institutions established, the economic environment and the regulatory framework within which the system operates currently. The Nigerian financial system include banks, capital markets, insurance, pension asset managers and other financial institutions with the central bank as the apex institution.

Ofanson (2010) note that the process of financial intermediation involves the mobilization and allocation of financial resources, through the financial (Money and Capital) markets by financial instruments (savings, securities and loans). They also suggest that the efficiency and effectiveness of financial intermediation in any economy depend critically on the level of development of the country's financial system. Efforts to improve the efficiency and soundness of the financial system are often geared towards supporting macroeconomic and monetary performance. That is because a reasonably sound, competitive conduct of monetary policy and efficiency of the effective conduct of monetary policy and efficiency of the transmission mechanism. In

this regard, the maintenance of financial sector stability is complementary to monetary and price stability. Both go hand in hand and are key ingredients for economic confidence upon which investment, growth and prosperity depends.

According to Harper (2011) the health of our banks and the health of our economy are inseparable. This statement buttresses the fact that the activities of banks impact every area of the economy and that in all economies, the banking industry plays a vital role. In addition to their primary role of providing a range of financial services, the banking industry is a major contributor to the gross domestic product (GDP), employment and information Technology (IT) investment. The banking industry also supports the economy by paying taxes and dividends to shareholders annually.

Lenvine ; (1997) as quoted in Badun (2009) distinguish five basic functions of financial system, and these includes:

- Facilitation of risk management
- Allocation of resources
- Monitoring of managers and control over corporate governance
- Saving mobilization
- Causing the exchange of goods and services

They also assert that financial system differ in how successfully they are performing these functions (Bagun, 2009) the sophistication of the banking industry, is an element of a developed economy, in recent times, series of policy reforms have been experienced in the Nigerian banking system, all in bid to enhance performance and sophistication of the Nigerian banks.

Bencivenga and smith (1991) asserted that economic growth will increase if more saving are channeled into the activity with high productivity while reducing the risk associated with liquidity needs. This will show that banks provide the benefits of eliminating unnecessary liquidations. Studies have shown that countries with developed financial institutions tend to grow faster, particularly the size of the banking system and the liquidity of the stock market tend

to have strong positive impact on economic growth. The financial service Provided by these institutions are essential drivers for innovation and economic growth.

Benciverage and Smith (1991) also underlined the positive effects that financial intermediaries have on the economy by encouraging the re-allocation of saving from liquid investment to longer-term productive investment. It is a matter of moving from speculative financial investments to investments in production and development projects.

2.2 Theoretcal Review

The key assumption of neoclassical theory, also known as the slow-swan growth is that the long-run rate of economic is dependant only on the rate of technological progress and the rate of labour force growth and that capital is always subject to diminishing returns. Thus, given a fixed stock of labour, the impact on output of the last unit of capital accumulated will always be less than the one before. Assuming for simplicity, no technological progress or labour forced growth, diminishing returns implies that at some point the amount of net capital produced is only just enough to make up for the amount of existing capital lost due to depreciation. With this scenario, it is difficult to contemplate a situation of economic growth without technological progress and growth in labour force

2.3.1 Empirical Review.

Financial Institution Performance and Economic Growth – Explanatory variables and Causation. In their study of the impact of financial sector performance and economic growth in Nigeria, Otto (2011) interpret that there is a positive relationship between the financial system and economic growth in Nigeria, especially within the 24 years period (1985-2008) . They conclude that the study aligns well with a priori expectation and confirm the importance if the financial sector to economic growth. In contrast, Ekeyong and Acha (2011) studied the role of banks on economic growth in Nigeria for the period 1980 – 2008 (28 years) and conclude that banks contribution to economic growth within

the period is insignificant. Their findings led to deduction that other factors (human resources, standard of education, political stability, power supply and other social infrastructure) may be playing more important role in growing the Nigeria economy.

The direction of causal relationship between economic growth and the financial institution is one area of contention amongst economists. Harrison (1999) however argue that banking activity and profitability are a function of economic growth. Agreeing with this assertion, Bayraktar and Wang (2006), suggest that financial institution openness had a direct and indirect effect on economic growth through a combination of improvement in access to financial service and the efficiency of financial intermediaries as both of these cause a lowering of cost of financing which in turn stimulates capital accumulation and economic growth.

However, Berglof and Roland (1995) find that soft budget constraints and repeated bank bailouts by governments were a function of poor quality of loan portfolios, the absence of collateral, low bank capitalization and political pressure to refinance unprofitable firms in transitional economies. Economic literature is replete with possible qualitative and quantitative explanatory variables that impact the growth rate of per capita output over time relevant. Tuvli (2002), for examples, uses the ratio of bank's claims on the private sector to GDP, annual consumer price index, and the interest rate margin to analyse the relationship between finance and economic growth.

Afangideh (2008) also asserted that "Several other determinates of economic growth especially in cross-section studies exist in the literature such as the years of schooling (human capital), black market premiums, bureaucratic efficiency, corruption etc. however, data on these variable are usually obtain from periodic surveys and hence consistent time series are unavailable. According to Howitt (2007) sustained economic growth-even if one narrowly defines it as sustained growth in income per person-is everywhere and always a process of continual transformation". He further answers

that the economic progress that rich nations have enjoyed since the industrial revolution would not have been possible had people undergone wrenching changes. Economies that cease to transform themselves are destined to fall off the path of economic growth. Cecchetti and Kharroubi (2012)

2.3.3 Analysis of Key Economic Indicators

On the Nigeria economy, the world fact book (2012) report observes that the oil-rich Nigeria has been hobbled by political instability, corruption, inadequate infrastructure, and poor macroeconomic management. However, in 2008 the country began pursuing economic reforms, Nigeria's former military rulers failed to diversify the economy away from its overdependence on the capital intensive oil sector, which provides 95% of foreign exchange earnings and about 80% of budgetary revenues.

Following the signing of an IMF stand-by agreement in august 2000, Nigeria received a debt restructuring deal from the Paris club and a \$1 billion credit from the IMF, both contingent on economic reforms. Nigeria pulled out of its IMF program in April 2002, after failing to meet spending and exchange rate targets, making it ineligible for additional debt forgiveness from the Paris club. In November 2005, Abuja won Paris club approval for a debt-relief deal that eliminates \$18 billion of debt in exchange for \$30 billion of Nigeria's total \$37 billion external debt. Since 2008 the government has begun to show the political will to implement the market-oriented reforms urged by the IMF, such as modernizing the financial system, removing subsidies and resolving regional disputes over the distribution of earning from the oil industry, GDP rose strongly in 2007-2011 because of growth in non-oil sectors and robust globe crude oil prices. President Jonathan has established an economic team that includes experienced and reputable members and has announced plans to increase transparency, diversify economic growth and improve Fiscal management. Lack of infrastructure and slow implementation of reforms are key impediments to growth. The government is working towards developing stronger public-private partnership for roads,

agriculture and power. Nigeria's financial sector was hurt by the global financial and economic crises, but the central bank government has taken measures to restructure and strengthen the sector to include imposing mandatory higher minimum capital requirement (The world fact Book, 2012).

Ensuring that financial sector contributes to the real economy the financial regulators should ensure that financial sector contributes to the real economy. With benefit hindsight, it is evident that rapid financialization in Nigeria did not benefit the real economy as much as has anticipated. Development financial institutions set up for specific purpose such as housing finance, trade finance, urban development have not fulfill their mandates. Many successful emerging markets have seen proactive government actions to ensure that the financial sector contribute to the real economy. Nigeria can learn from countries with successful track records in creating financial accommodation for economic growth through initiatives such as development finance, foreign direct investment, venture capital and private partnerships.

The CBN is in a good position to advocate economic growth in Nigeria (Bahar, 2009). Nigeria can learn from the experience of other economies. In successful emerging markets, many of the successful policy lending programmes share common features. For example, many policy lending programmes were conducted through state-owned/state-controlled banks particularly in East Asian economies such as Japan, Korea, China and Vietnam. Many programmes were funded by state budget or through government saving system (such as postal saving in Japan). The state invariably provided seed funding as equity in specialized development financial institutions (e.g Brazil, China) some funding also came from development agencies such as IFAD, WB and ADB (Bahar, 200

3. Research Methodology

3.1 Research Design

This study shall adopt the ex post research

design. According to Asika (2016), ex post facto research is a systematic empirical study in which the researcher does not in any way control or manipulates the independent variable because the situation for the study already exists or has taken place. The study collates historical data for the period from 200 – 2016.

3.2 Sources of Data

Secondary data is used for the study. Data from the real GDP per capital growth and Financial Deepening and other relevant data that is btained from the central bank of Nigeria Statistical Bulletin.

3.3 Population and Sampling Size

The population of this study is the financial institutions operating in Nigeria and all their market and economic indicators of the financial institutions and the Nigerian economy. The sample which was purposefully selected consists of the intermediation activity of the financial institutions, represented by the Broad Money (M2), and the economic growth indices, represented by the GDP, for the years 2000 to 2016.

3.4 Data Analysis Techniques

Data collected in the course of this study will be presented and analyzed using suitable statistical tools. They will be presented in tabular and graphical forms, and analyzed using statistical ratios.

The ordinary least sequin (OLS) simple repression model will be adopted for the validation of the hypothesis.

MODEL SPECIFICATION

The general model equation will be represented as state below:

$$Y = b_0 + B_1 X_1 + U$$

Where y = Dependent variable (economic growth)

X = Independent Variable (financial Depending)

U = Stochastic disturbance

Therefore the hypothesis test model will be state thus:

$$\text{Growth} = b_0 + b_1 \text{findeep} + u$$

Where is measured by GDP/Population

Findeep measured by M2/GDP

4. Data Presentation and Analysis

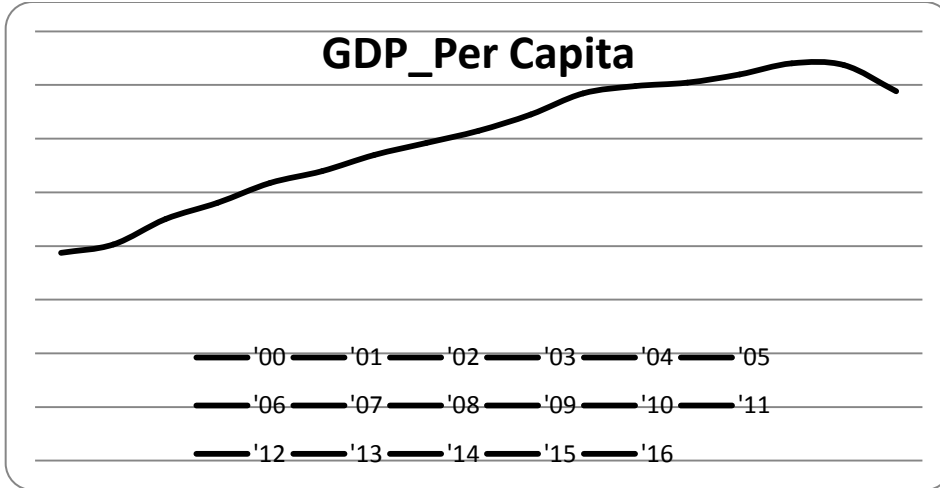
4.1 Data Presentation

Table4.1: Economic Growth at Constant Basic priceN’Bn

YR	GDP	POPULATION	GDP PER CAPITA
2000	23,688.28	122,352,009	193607.6097
2001	25,267.54	125,463,400	201393.7132
2002	28,957.71	128,666,700	225059.864
2003	31,709.45	131,972,500	240273.163
2004	35,020.55	135,393,600	258657.3516
2005	37,474.95	138,939,478	269721.3962
2006	39,995.50	140,431,790	284803.7471
r2007	42,922.41	144,998,281	296020.1301
2008	46,012.52	149,713,264	307337.6318
2009	49,856.10	154,581,566	322522.9327
2010	54,612.26	159,608,173	342164.5582
2011	57,511.04	164,798,232	348978.5012
2012	59,929.89	170,157,060	352203.3702
2013	63,218.72	175,690,143	359830.7732
2014	67,152.79	181,403,148	370185.3619
2015	69,023.93	187,301,926	368516.926
2016	67,931.24	197,392,515	344142.9377

Source: Statistical Bulletin, 2016 for various years

As seen from table 4.1 above, it could be seen that GDP which was 23,688.28Bn in 2000 kept an upward movement during the subsequent year, this GDP continue to increase gradually year in year out. From the above table, it can be seen that the increase was as a result of increase in population year. This means that as the country’s population increase so also the government has to increase GDP so as to be enough to at least cover the population. However, from the researcher observation, from 2003 to 2006 increase in GDP was within 30s i.e. in 2003, 2004,2005 and 2006 we have 31,709.45, 35,020.55, 37,474.95, and 39,995.50 billion naira respectively. It is important to note that there big difference of the figures in the year stated above, but from 2007 to 2016 the GDP was increasing in figure despite there is no much increase in population that period. From the researcher’s observation as seen in statistical bulletin (2017), more money was injected to the professional, scientific and technical service, public administration and where more money was injected apart from the two (2) stated above is Education and this may be due to civilization of Nigerian citizens to the importance of Education.



Financial deepening determination

Khan and Senhadji (2000), suggest that monetary aggregate such M1 or M2 are often use as proxy for financial system mainly because these aggregate are widely available. The financial deepening will be measured by dividing the M2 monetary aggregate he GDP. That is M2/G

Table 4.2: Monetary Survey by GDP Component. N,Bn (2000 to 2016)

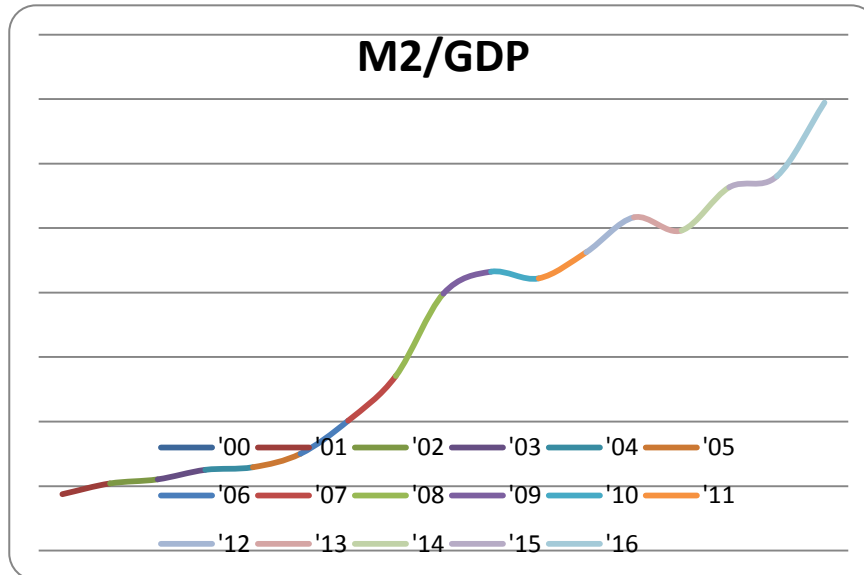
Year	M2	GDP N,Bn	M2/GDP
2000	1,036.1	23,688.28	43738929.12
2001	1,315.9	25,267.54	52078674.85
2002	1,599.5	28,957.71	55235721.33
2003	1,985.2	31,709.45	62605942.39
2004	2,263.6	35,020.55	64636334.95
2005	2,814.8	37,474.95	75111507.82
2006	4,027.9	39,995.50	100708829.7
2007	5,809.8	42,922.41	135355866.6
2008	9,166.8	46,012.52	199224037.3
2009	10,780.6	49,856.10	216234322.4
2010	11,525.5	54,612.26	211042355.7
2011	13,303.5	57,511.04	231320803.8
2012	15,483.8	59,929.89	258365233.1
2013	15,689.0	63,218.72	248170162.3
2014	18,913.0	67,152.79	281641313.8
2015	20,029.8	69,023.93	290186316.5
2016	23,591.7	67,931.24	347287934.1

Source: CBN Statistical Bulletin 2017 & Researcher Computation

The reason why the researcher is comparing M2 to GDP is to see how foreign asset (Net) by central bank, by commercial banks, by merchant banks, by Non- interest banks. Domestic credit (Net) claims by central bank, commercial banks, merchant banks and claims by Non- interest banks all in respect to domestic credit are all claims on federal government. There are still claims on private sector, claims on state and local government, claims on Non- financial public enterprises. Which all make up monetary assets/liabilities and how they contribute to the GDP. As already that in any financial statement asset and liabilities side is the same which is also stated in the CBN statistical bulletin under the monetary survey

Excel sheet.

From researcher's analysis of M2/GDP the researcher observed that from 2000 to 2005 monetary asset did not contribute much to GDP but from 2006 to 2016 the M2 contribution to GDP gradually begin to increase and increase without and decrease and by 2016 M2 contribution to GDP has risen to 347287934.1 which shows a positive contribution to an extent. The meaning of this is that, monetary asset/liabilities contribute to economic growth to an extent.



4.2 Data Analysis

In this section, the various data presented in section 4.1 (Data presentation section) are analyzed. The various objectives of the study will be used as basis for the analysis. This researcher opines will invariably enhance the discussion of the findings. Below therefore are the analyses.

Objective One: To describe the operation of the Nigeria financial system

Describing the operation of the Nigeria financial system has to do with how the financial institution of financial sectors carryout their operation in Nigeria. The financial system consist of various financial institution, operators and instrument that gives the system its character and uniqueness. According to the Central Bank of Nigeria research series (1993) the Nigeria financial institution refers to a set of rule and regulation and the aggregation of financial arrangement, institutions, agents, that interact with each other and the rest of the world to foster economic growth of a nation. The Nigeria financial system differs from the Global Financial System (GFS). The Global Financial System consists of institutions and regulations that act on the international level, as opposed to those that act on a national or regional level. The main players are the Global institutions, such as International Monetary fund and Bank for International etc.

The financial system is a prime mover of economic growth. It achieve this through the intermediation process, which entails providing a medium of exchange necessary for specialization and mobilization of savings from surplus unit to deficit units. Through this process, there is an enhanced productive activity and thus positive influences aggregate output and economic growth. It means the system ensure the efficient transfer of savings from those who generate them (savers) to those who ultimately use them (investors) for investment or consumption

Objective Two: To analyze the role played by financial institution in the growth of Nigeria's economy.

In achieving this objective, the researcher looks at the loan and advances to customers which will be

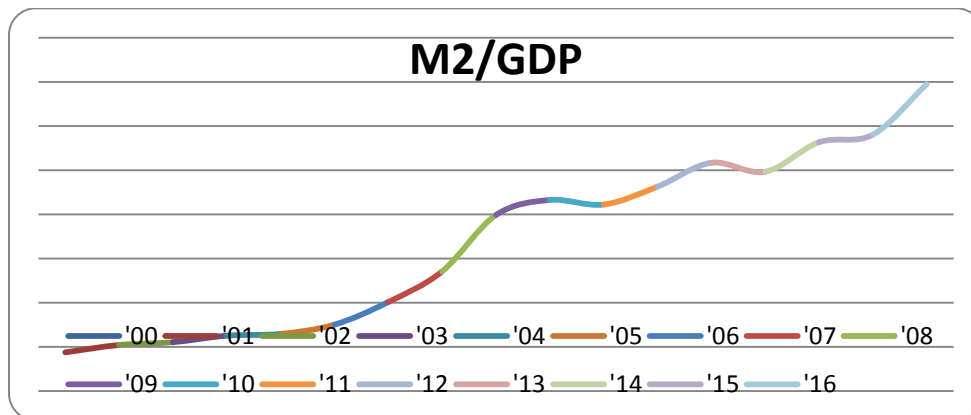
compared to the GDP, customers can be business firm and contractors because this group of individuals are in the country and any investment they make will be in the country. So analyzing financial institution loan and advances to this group of individuals will enable the researcher to know if those loan and advances have any impact in the economy. The researcher carryout this analysis by divide the loans and advances to customers by GDP at constant basic price to know the percentage (%) contribution.

Table 4.3 Role of Financial Institution to GDP (2000 to 2016)

Year	Loan and advance to customer N,Bn	GDP N,Bn	% contribution of loans and advance to GDP
2000	429.3	23,688.28	1.812288609
2001	714.5	25,267.54	2.827738672
2002	805.3	28,957.71	2.780951947
2003	1,012.4	31,709.45	3.192739073
2004	1,278.6	35,020.55	3.650999199
2005	1,584.5	37,474.95	4.228157743
2006	2,096.3	39,995.50	5.241339651
2007	3,861.5	42,922.41	8.996465949
2008	6,051.7	46,012.52	13.15228986
2009	7,385.8	49,856.10	14.81423537
2010	6,359.6	54,612.26	11.64500425
2011	6,098.5	57,511.04	10.60405098
2012	7,034.1	59,929.89	11.73721494
2013	8,730.6	63,218.72	13.8101499
2014	11,591.0	67,152.79	17.26063802
2015	11,609.3	69,023.93	16.81923936
2016	14,163.5	67,931.24	20.84975926

Source: CBN Statistical Bulletin 2017 & Researcher Computation

From the table 4.3 above, it could be seen that financial institution loans and advances did not contribute much to the economy growth from 2000 to 2007. The contribution grew from 1.81% in 2000 to 8.99% accepting the fact that its contribution within this period had ups and down movement the highest during within this period is was 2007. But as from 2008 to 2016 as financial institution increase their rate of loans and advances to customers, the percentage contribution begin to increase gradually and consistently, by year 2016 the loans and advances to customers has the contribution of 20.85%. this percentage shows a reasonable contribution to the economy to an extent. The meaning of this is that in the future where further research will be carried out on this project work there must have been a strong and reliable contribution of loans and advances to the economy. From the analysis above, financial institution loans and advances contribute to the economy growth to an extent.



Objective Three: To Examine the relationship between financial sector development and economy growth in Nigeria.

To achieve this objective the researcher will be looking at the time series movements in the percentage changes in financial sector and total real GDP, for the period under study. This is presented on table 4.3 below. A time series movement along the same direction indicates a positive relationship.

Table 4.4 Financial Sector and Total Real GDP Output with their Percentage Growth Rate (2000-2016)

Year	M2	TOTAL REAL GDP	%CH IN M2	%CH in GDP
2000	1,036.1	23,688.28		
2001	1,315.9	25,267.54	27.00511534	6.666841155
2002	1,599.5	28,957.71	21.55178965	14.60438966
2003	1,985.2	31,709.45	24.11378556	9.502616056
2004	2,263.6	35,020.55	14.02377594	10.44199757
2005	2,814.8	37,474.95	24.35059198	7.008456463
2006	4,027.9	39,995.50	43.09720051	6.725959608
2007	5,809.8	42,922.41	44.23893344	7.318098286
2008	9,166.8	46,012.52	57.78167923	7.199292864
2009	10,780.6	49,856.10	17.60483484	8.353335136
2010	11,525.5	54,612.26	6.909633972	9.539775474
2011	13,303.5	57,511.04	15.42666262	5.307929025
2012	15,483.8	59,929.89	16.38892021	4.205888122
2013	15,689.0	63,218.72	1.325256074	5.487795823
2014	18,913.0	67,152.79	20.54942954	6.22295105
2015	20,029.8	69,023.93	5.904933115	2.786392047
2016	23,591.7	67,931.24	17.78300333	-1.583059672

Source: CBN Statistical Bulletin 2017 & Researcher’s Computation

As could be seen from the above table, the percentage changes of the two variables, GDP and monetary asset/liabilities, appear to be moving in the opposite direction, there is more percentage change in monetary asset/liabilities this may be due to financial institution awareness of the impact of their loans and advances which enables them to give out more loans to their customers in the subsequent years so as to create more impact in the economy excepting for a few years. Therefore in the main, there appears to be a positive relationship between financial institution and economic growth in Nigeria. However, the extent of this relationship will be validated during the test of hypothesis. Below is fig. 4.4 to further elucidate.

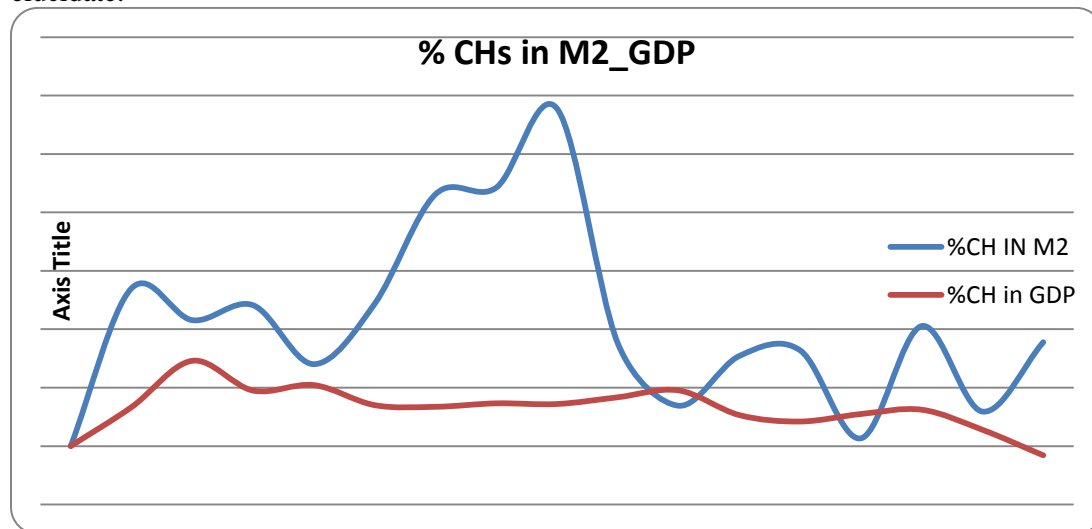


Fig. 4.4:Percentage Growth Rate of M2 Output & GDP (2000-2016)

4.3 Hypothesis Testing

The hypothesis postulated for this study is tested, using the simple regression and correlation. An ANOVA test was also conducted to be able to test for the variance. The package used was the statistical package for social sciences (SPSS), which is a MSE statistical package. The decision is as stated in chapter three above.

Below is the hypothesis restated to be validated.

Ho: Financial Institutions intermediation activities has no impact in Nigeria's economic growth

Hi: Financial Institutions intermediation activities has impact in Nigeria's economic growth

Result (see appendix for the printout).

R =	0.972
R ² =	0.944
F =	254.250
Sig. Value =	0.000

Interpretation

From the above results obtained from the test of hypothesis have the following interpretations:

R: This is the correlation coefficient between the observed and predicted values of the dependent variable. It ranges in value from 0 to 1. A small value indicates that there is little or no linear relationship between the dependent variable and the independent variables, but in this case it is **0.972** which indicates that there is a strong relationship between financial institution intermediation and economic growth in Nigeria.

R² shows goodness-of-fit measure of a linear model, sometimes called the coefficient of determination. It is the proportion of variation in the dependent variable explained by the regression model. It ranges in value from 0 to 1. Small values indicate that the model does not fit the data well. Since the value is **0.944**, it implies that economic growth is influenced by financial institution intermediation output to the tune of about 94%.

F: The ratio of two mean squares. When the F value is large and the significance level is small (typically smaller than 0.05 or 0.01) the null hypothesis can be rejected. In other words, a small significance level indicates that the results probably are not due to random chance. In this

case the value is 254.250 while the significant value is **0.000**, therefore by implication, the Ho is rejected thus accepting the H1 which states that "financial institutions intermediation activities has impact in Nigeria's economic growth

Validation of Hypothesis

In validating the hypothesis the ANOVA (F) test is used, with the following decision rule:

Reject H0 if $F > F_{0.05}$; accept H0 or reserve judgment if $F \leq F_{0.05}$.

F = 254.250

Df = 1, 15

$F_{0.05} = 101.17$

Decision

Since $F > F_{0.05, (15)}$ we reject the Ho and alternatively accept the H1, which states that **the financial institutions intermediation activities has impact in Nigeria's economic growth**

4. Summary of Findings

Objective One: To describe the operation of the Nigeria's financial system.

The Nigeria financial system was described as consisting of group of related financial institutions that interact within an economy to provide financial service.

The interact within the economy taking fund offered by lenders and savers who have excess funds and purchased by borrowers and spenders who need those fund in which the financial institution get profit in return.

Objective Two: To analyze the role played by financial institution in the growth of Nigeria's economy.

The contribution grew from 1.81% in 2000 to 8.99% accepting the fact that its contribution within this period had ups and down movement the highest during within this period is was 2007. But as from 2008 to 2016 as financial institution increase their rate of loans and advances to customers, the percentage contribution begin to increase gradually and consistently, by year 2016 the loans and advances to customers has the contribution of 20.85%. This percentage shows a reasonable contribution to the economy to an extent. The meaning of this is that in the future where further research will be carried out on this project work there must have been a strong and

reliable contribution of loans and advances to the economy.

Objective Three: To Examine the relationship between financial sector development and economy growth in Nigeria.

The percentage changes of the two variables, GDP and monetary asset/liabilities, appear to be moving in the opposite direction, there is more percentage change in monetary asset/liabilities this maybe due to financial institution awareness of the impact of their loans and advances which enables them to give out more loans to their customers in the subsequent years so as to create more impact in the economy excepting for a few years. Like in 2016 the percentage change in GDP indicated negative sign this was because the GDP for the period was low than that of the previous year that is 2015. It was only in 2016 that the percentage change in GDP was negative. However, the extent of this relationship when validated during the hypothesis testing the result shows a positive relationship 94% and that of financial institution intermediation has 97% impact of the economic growth; the result being statistically significant at the 0.05 level of significance.

5. Conclusions

It could therefore be concluded that financial institution activities in Nigeria has impacted positively on the country's economic growth as measured by financial deepening and gross domestic product for the period of study 2000 to 2016. This financial institution through various institutional structures, they vigorously seek out and attract the reservoir of idle funds and allocate same to entrepreneurs, businesses, households and governments, for investment and use in various projects and purposes, with the view of return.

6. Recommendations

Based on the researcher's work presented and analyzed in the forgoing chapters, the following recommendation were given.

More financial institution should be established in Nigeria to encourage and promote industrialization or the established financial institution should be allocated with more funds

to further boost their intermediation.

The interest rate on loan should be reduced by some percentage, this will make the activities of the institutions more attractive to people.

Financial institution credit should be directed at priority sectors (manufacturing and agriculture) for its impact to be felt in the economy.

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APPENDIX

Descriptive Statistics

	Mean	Std. Deviation	N
RealGDP	47075.5812	15435.31416	17
M2	9372.7353	7459.63214	17

Correlations

		RealGDP	M2
Pearson Correlation	RealGDP	1.000	.972
	M2	.972	1.000
Sig. (1-tailed)	RealGDP	.	.000
	M2	.000	.
N	RealGDP	17	17
	M2	17	17

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	M2 ^b	.	Enter

- a. Dependent Variable: RealGDP
- b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.972 ^a	.944	.941	3762.68576	.944	254.250	1	15	.000	.641

- a. Predictors: (Constant), M2
- b. Dependent Variable: RealGDP

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3599615707.662	1	3599615707.662	254.250	.000 ^b
	Residual	212367061.983	15	14157804.132		
	Total	3811982769.644	16			

- a. Dependent Variable: RealGDP
- b. Predictors: (Constant), M2

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	28229.675	1493.231		18.905	.000
	M2	2.011	.126	.972	15.945	.000

a. Dependent Variable: RealGDP

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	30312.9785	75665.8750	47075.5812	14999.19937	17
Residual	-7734.63672	3666.86304	.00000	3643.20482	17
Std. Predicted Value	-1.118	1.906	.000	1.000	17
Std. Residual	-2.056	.975	.000	.968	17

a. Dependent Variable: RealGDP

Part Two

Media and Language Studies

Indigenous People of Biafra in the Frames of two Nigerian Dailies

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Abstract. The study centred on the newspapers' framing of Indigenous people of Biafra in their struggle for independence among the two widely read media outlets of Nigeria involving *Daily Trust* and *The Nation* newspapers. The study was anchored on framing theory that explains how media shape audience thinking. Content analysis was the chosen method. The study adopted a purposive sampling technique for the newspapers and the periods under study and a random sampling for the editions. A coding sheet was designed as the instrument. The data gathered were then subjected to SPSS analysis using figures. The study found that Indigenous people of Biafra were blamed by the frames on many fronts; that there were a lot of negative frames in the media reportage against them. The study therefore recommended that the government dialogue with this Igbo group on issues of alleged marginalization and unfair treatment meted out to them, that the media should be unbiased in reporting the group and their ordeals.

Keywords: *Frames, Nigeria, Indigenous people of Biafra, Dailies.*

1. Introduction

Indigenous people of Biafra under the leadership of 'Nnamdi Kanu', was a coined term representing the idea for the independence of Igbo as a republican state. To Ozoema (2016) the term was coined out of the Igbo clamour and

advocacy for a free and independent state of Biafra. The aftermath of the first civil war in Nigeria necessitated the outcry for separation by most Igbo people. It has been argued severally that this could be traced to apparent marginalization meted out to them since post-civil-war era. This may not be unconnected with the fear of reprisal by Igbo if given the mantle of leadership.

Obi (2001) reminds that history of political unrest occasioned by the quest for the republic of Biafra in 1967 among the major Nigerian ethnic groups is hardly forgettable. This struggle for secession was foiled by the Nigerian state after a three year war that resulted in the loss of over one million lives and displacement of many others in eastern Nigeria. The end of the war was followed by deliberate social, political and economic policies aimed at reducing the capacity of the Igbo people to challenge the state or the dominance of the victorious groups. These policies of marginalization were effectively carried out through the autocratic military regimes that dominated Nigerian politics for the greater proportion of its post-war history that spanned between 1970 till 1999.

Igbo tribe is the third largest ethnic nationality in Nigeria after Hausa and Yoruba ethnic nationalities. There is no other ethnic nationality in the country that has suffered marginalization like the Igbo people. Indeed, Igbo people have suffered great frustrations and reverses in

Nigerian history (Obi 2001). Beginning with the infamous pogrom of 1966 in the north where Igbo people lost up to one million lives which were followed by their bid for a separate and independent state of Biafra, a move that was necessitated by endless acts of wickedness and man's inhumanity to man meted against them in the northern part of the country. This culminated in a costly and gruesome civil war and a defeat, the story has remained unpleasant for Igbo people in Nigeria till date.

According to Bullock (2001:20), "framing affects how a story is told and influences public perception". One reason for this, according to Auerbach and Bloch-Elkon (2005:13) is that the public's lack of awareness, along with their reliance on media for information and decision-making, make them more likely to be influenced by framing. They observed that: When the media place stories in specific frames, they lend a different meaning to the news. The media increase or decrease the salience of issues, which allows the public to remember and make judgments on such issues.

Framing dwells on subtle changes in the wording of the description of a situation which likely affect how audience members think about the situation. Research indicates that news dealing with unrest and crises, like the movement of a few factions of the Igbo people in Nigeria for a free and independent Biafra, influences public perceptions and concerns. When such events cause destruction in the society, it severely affects members in that community. Generally, these events allow researchers to assess the degree to which media select news and shape its content (Brunken, 2006: 2).

One way in which news media shape perceptions of audience on key issues is through the act of framing. That is why Lippmann (2008: 52) observes that news is responsible for providing the "pseudo-environment" upon which people rely to experience and understand events they cannot observe directly and that news frames are important in how these events are reported since they reflect a process of

recurring selection and emphasis in communicating perceived reality.

There exist some guidelines that are expected to be the frame of reference when reporting conflict. It has been observed that the audience of mass media can be inflammable and this informed Okoye (2011, p. 268) to caution that "media contents that portray...scenes of...violence should be handled with caution." The Code of Ethics for Nigerian journalists puts it better, as it states in clear terms that media personnel should endeavour to eschew depiction of violence textually or pictorially.

Newspapers give attention to reportage of crises especially those having grave consequences on people and their environments. The media performs its cardinal roles of the mass media-surveillance and provision of information to the society. However, there exist concerns as to what may constitute the frames of reference in the media contents resulting from indigenous people of Biafra move against the Nigerian state. It is against this backdrop that the researcher wants to find out how the newspapers frame the Indigenous people of Biafra and their quest for the sovereign nation of Biafra using *Daily Trust* and *The Nation* newspapers.

2. Research Questions

The following research questions were raised to address those issues:

- What priority is given to reports on the indigenous people of Biafra by *Daily Trust* and *The Nation* newspapers?
- What angle of frames do the reports on the indigenous people of Biafra represent in *Daily Trust* and *The Nation* newspapers?
- Where are the blames traceable for the actions of indigenous people of Biafra as framed by *Daily Trust* and *The Nation* newspapers?

3. Literature Review

Ikenna (2016) argues that the storyline of the modern Igbo in the Nigerian mass media has

received a lot of criticisms. The issue of portraying Igbo in the Nigerian newspapers is said to be based on the regional and ethnic perspectives. It is believed that the northern newspapers portray them as being a problem to the security and conversely, the southern newspapers portray them as a group fighting for their political rights. Consequently, Asemah (2011) posits that media both print and broadcast are often criticized for several reasons. One of the issues is the status conferral; which is a theory used when increasing or decreasing the status of an individual or a group. Igbo community has been portrayed as epidemic to national security because of their agitations and call for the division of the country.

Nnamdi (2013) has noted that politics is about power relations and the allocation of economic resources for political gain within a body polity and this has made the struggle for acquisition of power to constitute the rationale behind all political activities. The political process in Nigeria has always been characterized by conflict, counter conflict, ethnic rivalries and deep rooted animosity between political players and their support based. As a result, Nigeria's politics can be tense with its many ethnic nationalities. As such, it is important to understand the prime factors of political conflict in Nigeria which may include; feelings of alienation and struggle for recognition, fear of domination, state formation, delineation and contestation of borders, access to political powers (IPCR, 2003 in Gandu, 2005).

Kumar (2010) observes that defining the concept of national security continues to be a challenging task as various factors identifying its capacity at all levels of perception, and thus cannot be restricted to a single definition due to its changing nature from state to state. Hans (1948) observes that the concept of national security has now entered the public domain. Security is being framed by most scholars as 'the creation of conditions that contribute to *The Nation's* political, social and economic consolidation and ensure territorial integrity of the country, acquisition of capabilities to sustain these conditions, safeguard freedom of options and

capabilities to survive in a volatile security environment.

Vohra (2008) states that in the current security environment, national security cannot be inter-linked with national defence only; as it covers a wide range of aspects that require the cooperation and understanding of the State, its forces, institutions and the public. So, national security therefore encompasses the expected behaviour of a democratic nation, as in the case of Nigeria by focusing on providing the right to life and liberty to its citizens; equality in all spheres of activity; cooperation between the public and private sector in the state; preservation of territorial sovereignty and integrity; maintaining a flexible civil and military relation. Oshio (2009) observes that some definitions equate the concept of national security to the state and centre all related policies revolving around *The Nation* state, while others factor the state and individuals as the constituents of national security.

In the findings of Nwabueze and Ezegwu (2013), on geopolitical media coverage of terrorist activities in Nigeria, an analysis of New Nigerian, Vanguard and Daily Sun. Using Content Analyses method, the three newspapers carried 264 items on ethnic orientation on media coverage of terrorist activities, out of the total, New Nigerian carried 71 items, Vanguard carried 88 items, and Daily sun carried 105 items. 75% of the coverage was unfavourable, 5% were favourable and 20% were neutral within the regional interests in the reports. Also in the findings of Shehu and Suleiman (2015) on the analysis of *Daily Trust* and Vanguard newspapers framing of the Boko haram terrorist identity, vanguard has the higher percentage in identifying boko haram as Muslims with 71.3%, *Daily Trust* with 43.8%. They noted that it may be as a result of the location of the newspapers.

In the findings of Omebije (2012) on Boko Haram, using Content Analysis, *Daily Trust* and Daily Sun reported the conflict differently and more so, the two newspapers have different directions. *Daily Trust* wants government to negotiate and dialogue with the group while Daily Sun, support the use of force and dialogue.

This by implication indicates the sympathy from the northern newspaper which is *Daily Trust* and in the opposite, the call for force from the southern newspaper. The frames by these two newspapers suggest ethnic belonging which has a negative implication for Nigeria.

4. Theoretical Approach

The study is anchored to media framing theory. Framing and frames are primary means through which people make sense of a complicated world as argued by Gregory Bateson and Erving Goffman (Entman, Matthes & Pellicano, 2009). Framing has been defined as “the way events and issues are organized and made sense of, especially by media and its stakeholders (de Vreese, 2001).

Framing is traceable to psychology and sociology and it is based on the assumption that how an issue is characterized in news reports can have an influence on how it is understood by audiences (Pan & Kosicki, 1993). The psychological origin of Framing lies in experimental work by Kahneman and Tversky (1979, 1984), for which Kahneman received the 2002 Nobel Prize in economics (Kahneman, 2003).

To frame is “to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation” (Entman, 1993:7). However, problem definitions are the core objectives of this study. According to Norris, Kern and Just (2003) the idea of ‘news frames’ refers to interpretive structures that journalists use to set particular events within their broader context. The essence of framing is selection, to prioritize some facts, images, or developments over others, thereby unconsciously promoting one particular interpretation of events (Price, Tewksbury & Power, 1995).

5. Research Design

Content analysis may also be understood as exploratory or descriptive or both in terms of

design (Anastas, 1999). The design for this study based on the purpose is exploratory and descriptive as noted by early basic content analysis theorists that emphasized its exploratory and descriptive uses (Berelson, 1952; Holsti, 1969). Researchers use exploratory research designs when they know little about a topic, or where few prior definitions, few concepts, and little theory are available on a topic thereby employing small sample (Drisko & Maschi (2015). This informed the selection of only 90 editions for the analysis. The descriptive design is employed to describe the content in the line of the categories set for the study.

The design based on the timing is cross sectional as observed that basic content analysis studies often employ cross-sectional research designs, in the sense that they explore and/or describe the characteristics of a specified sample at one point in time or over a short span of time (Menard, 2002; Mann, 2003; Riffe, Lacy & Fico, 2005; Bryman, 2012; Drisko & Maschi, 2015).

5.1 Categories and Measurement

The design at the level of coding is both deductive/ priori and inductive/emergent, this is because the researcher first identified the main categories a priori which are negative and positive frames, blamed and non-blamed frames and frames of priority which helped him in finding the relevant frames under each main category using emergent design. It has been noted that content analysis may use either deductive, a priori coding, or inductive coding techniques, or a mix of both techniques (Neuendorf, 2001; Drisko & Maschi, 2015).

The measurement of all the categories is at nominal level. In nominal measurement, numerals or other symbols are used to classify people, objects, or characteristics. Another property of nominal measurement is that all categories are exhaustive and mutually exclusive. This means that each measure accounts for every possible option and that each measurement is appropriate to only one category (Wimmer & Dominick, 2010).

5.2 Method

The study adopts quantitative content analysis method; the reason for the choice of this method is to get relevant data from the newspapers that will answer the research questions raised for the study. It is through content analysis method that the frequencies of the categories can be coded. Scholars who give preference to quantitative content analysis do so because apart from being systematic and objective, it also gives emphasis in quantifying the frequency of occurrences of the phenomenon under study. But those who disagree with this position point to the limitation of quantitative content analysis for failing to understand the importance of the hidden meaning that underlies any media text (Gunter, 2002). This position gave rise to qualitative content analysis.

Content Population

The population is made up of all conceivable elements, subjects or observation relating to particular phenomenon of interest to the researcher (Asika, 2009). The population of this study comprises of all the editions of *Daily Trust* Newspaper and *The Nations* newspapers from 19th January, 2018 to when the struggle for independence by indigenous people of Biafra was proscribed to 19th June, 2018 spanning across 6 months.

5.3 Sampling Technique and Size

In content analysis, some scholars note that there may be times, when purposive sampling is useful (Wimmer & Dominick, 2010). Riffe and Freitag (1997) confirm the popularity of purposive sampling in content analysis. They found that 68% of all the content analyses in *Journalism Quarterly* from 1971 to 1995 used a purposive sample (Wimmer & Dominick, 2010). The newspapers to be analyzed were purposively sampled that is the class of non-probability sampling because of its wide readership in the country. As for the editions, ninety (90) editions were randomly sampled.

5.4 Coding Scheme and Reliability Test

Coding sheet was used as the instrument of data collection. It was designed with a priori categories and the hints of the emergent categories as well. The coding sheet contained all the variables captured by the research questions with the aim of answering it during discussion.

After conducting intra-coder reliability test with an interval of two weeks, 12 editions were picked from both *Daily Trust* and *The Nation* newspapers at random. The data was subjected to Re Cal 2 internet based software to calculate the reliability. The result showed a reliability coefficient of between 94 and 100 for percent agreement, and between .72 and 1.0 for Scott Pi, Cohen Kappa and Krippendorff's alpha. Reliability is substantial if it yields kappa coefficient ranging between .61 and .80 (Stemler 2001). This range of value is similarly held as substantially reliable in Scott Pi and Krippendorff's alpha.

5.5 Unitization

News, feature, opinion and cartoons were adopted as the units of analysis for the study. The unit of analysis is the smallest unit of content that is coded into the content category. The units of analysis vary with the nature of data and the purpose of research. Thus, the unit of analysis might be a single word, a letter, a symbol, a theme (a single assertion about one subject), a news story, a short story, a character, an entire article, or an entire film or a piece of programme (Wimmer and Dominick, 1994).

6. Data Presentation, Analysis and Interpretation

This section contains the discussions of the findings of the research. The data collected were represented in figures and further interpreted for better understanding.

Daily Trust Newspaper

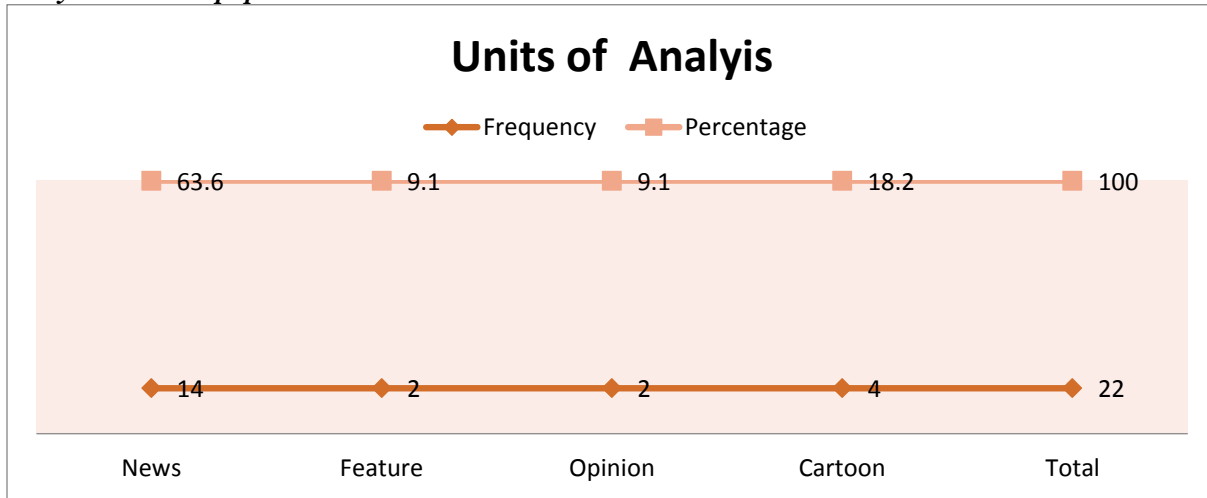


Figure 1: Frequency of the Units of Analysis

From the data on figure 1, the units of analysis have recorded many stories from the number of the entire editions sampled for this study. It shows that 63.6% of the newspapers analysed were in news columns and 9.1% were feature and opinions and also 18.2% were cartoons. This is to say that there were more news articles covered regarding the indigenous people of Biafra cases than were in the other units.

Daily Trust Newspaper

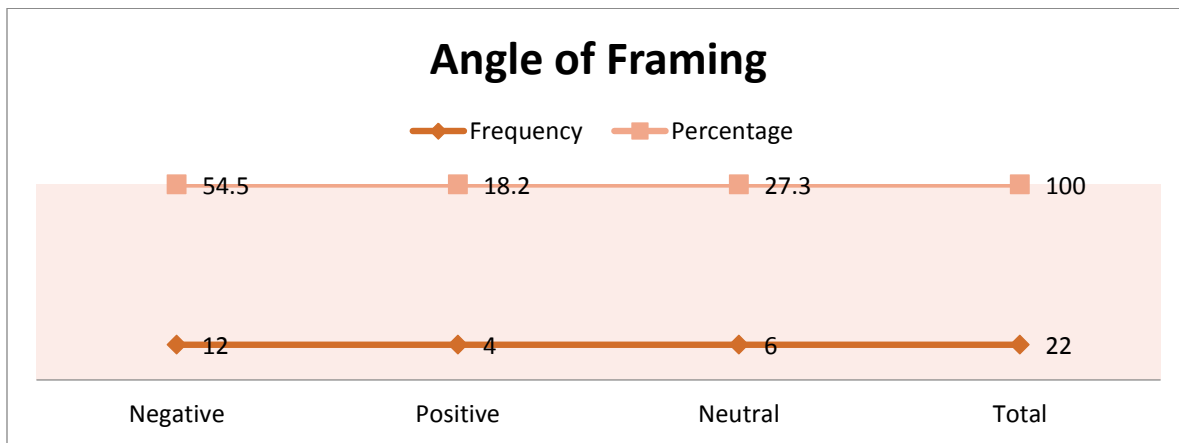


Figure 2: Angle of Framing

Figure 2 shows the angle of framing *Daily Trust* gave the indigenous people of Biafra. The figure shows that 54.5% of the report was covered from negative frames while 18.2% to positive frames and 27.3% of the report were on neutral ground. This is to say that *Daily Trust* reports of indigenous people of Biafra were more of a negative perspective than on the positive or neutral grounds.

Daily Trust Newspaper

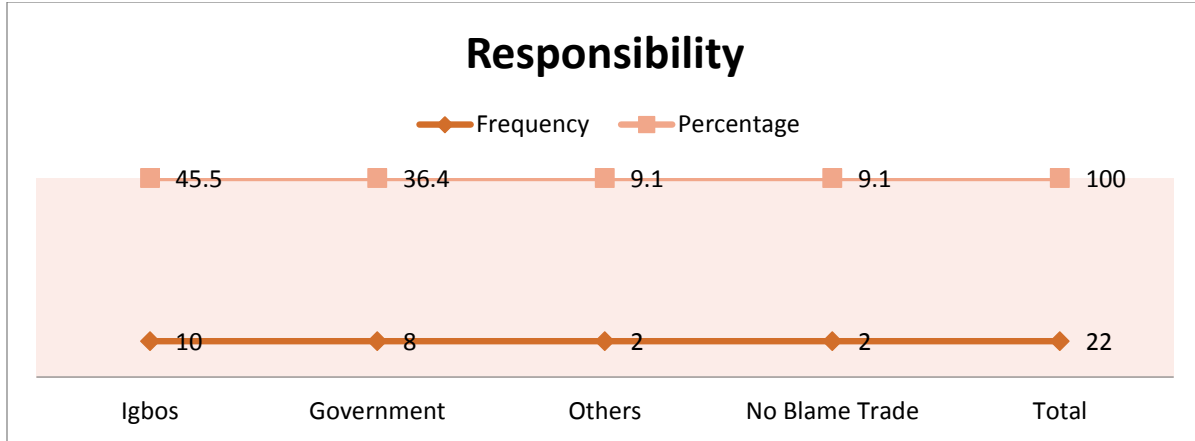


Figure 3: Responsibility

Figure 3 shows the record of the blame trade in the reports according the volumes of *Daily Trust* newspapers content analysed. The figure shows that 45.5% of the blame goes to the indigenous people of Biafra and 36.4% of the blame goes to the government and that 9.1% of others were blamed and others refers to governmental policies and also marginalization and also 9.1% indicates that there were no blame trade recorded. This suggests that indigenous people of Biafra are responsible for their ordeals.

Daily Trust Newspaper

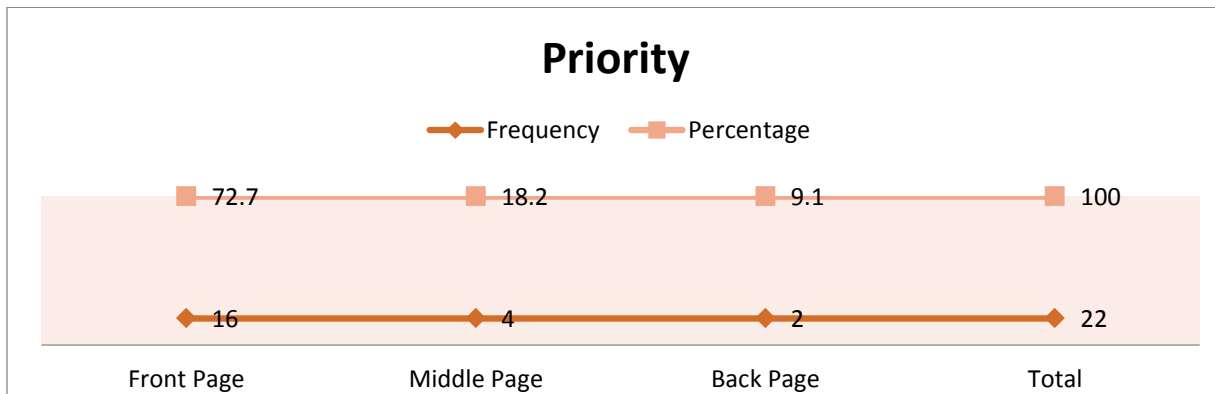


Figure 4: Priority

Figure 4 shows the priority range accorded to reports regarding indigenous people of Biafra. The figure shows that more priority is accorded to the indigenous people of Biafra cases with it appearing 72.7% times on the front pages and 18.2% on the middle page and 9.1% on the back page. This indicates that the issue became trending at the time of their uprising.

The Nation Newspaper

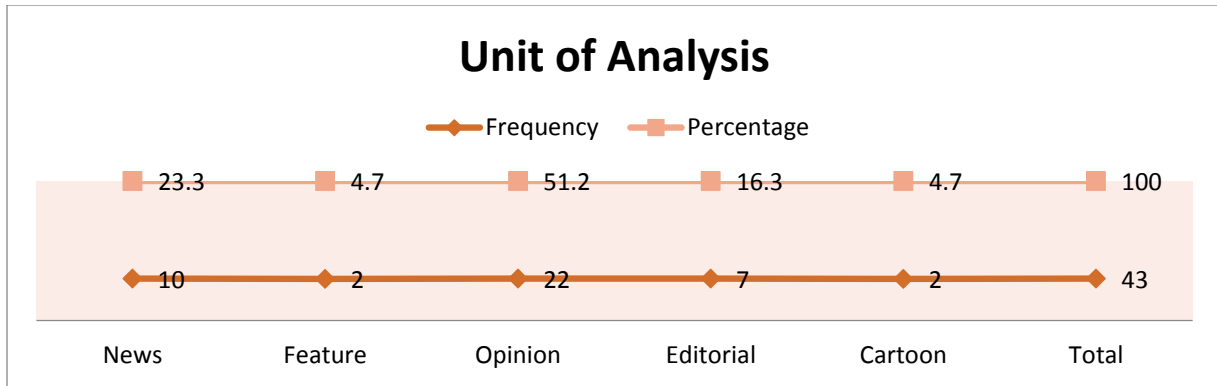


Figure 5: Units of Analysis

Data on figure 5 shows the unit of analysis utilized for the sampled editions. It shows that 51.2 of the newspapers analysed were in opinion columns and 4.7% were feature and cartoons and also 23.3% were news reports and 16.3% were editorials. This is to say that there were more opinion articles covered regarding the indigenous people of Biafra cases than were in the remaining units.

The Nation Newspaper

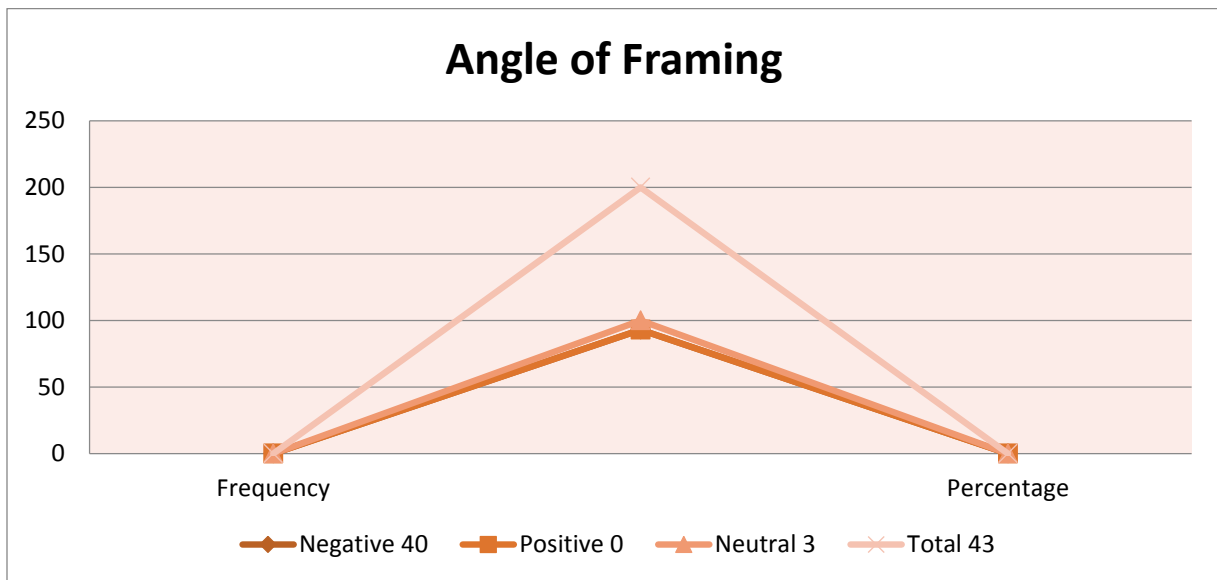


Figure 6: Angle of Framing

Figure 6 shows that 93.0% of the reports were negatively framed while 7.0% of the reports were neutral and none for the positive frame. This indicates that *The Nation* has found faults with indigenous people of Biafra in their uprising.

The Nation Newspaper

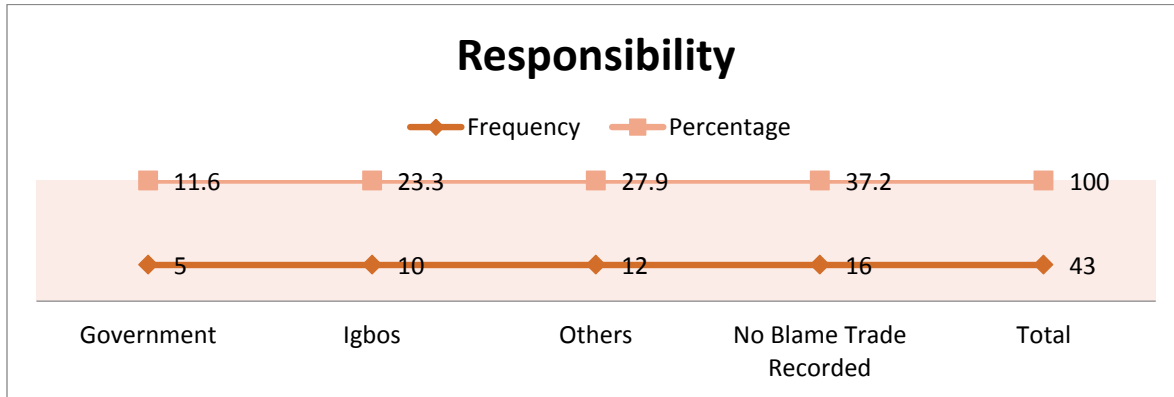


Figure 7: Responsibility

Figure 7, 37.2% indicates that no blame trade was recorded in the reports, also 23.3% of the reports blame the indigenous people of Biafra and 11.6% of the reports blame the government while 27.9% of the reports blame others. This indicates that the blame on the indigenous people of Biafra is very close to the categories of others and no blame trade.

The Nation Newspaper

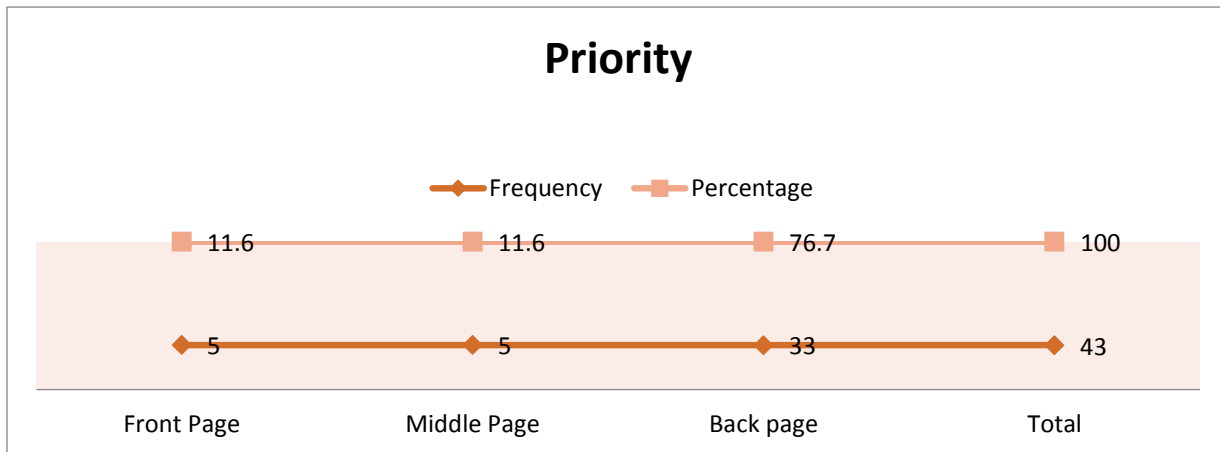


Figure 8: Priority

Figure 8 indicates that 76.7% of the reports were on the back page section, while 11.6% of the reports were on the front page and also on the middle page. This indicates that *The Nation* gave less priority to the indigenous people of Biafra case at the time of their uprising.

7. Discussion of Findings

RQ-1: Priority given to issues regarding the indigenous people of Biafra

Cognizance of the position put forward by Nnamdi (2013) where he noted that politics is about power relations and the allocation of economic resources for political gain within a body polity and this has made the struggle for acquisition of power to constitute the rationale behind all political activities. The sampled editions for this study took reports on the political unrest between the Nigerian state and Indigenous people of Biafra seriously. This is buttressed by figures 4 and 8, where most of the issues regarding indigenous people of Biafra by

Daily Trust within the sampled editions were in the front page.

The result shows that 72.7% of the indigenous people of Biafra reports were on the front page and that is to say that more priority was accorded to reports related to them. Figure 1 also shows that 63.3% of *Daily Trust* reports were in the News columns. However, figure 5 from *The Nation* shows that most of the reports on its pages are in the opinion columns than they are on the other columns. Figure 8 shows that 76.7% of the reports were on the back page. This could be traced to the fact that opinion columns are mostly found at the back pages of *The Nation* newspaper.

RQ: 2: Angle of framing indigenous people of Biafra

From the findings, figure 2 and figure 6 show the angle of framing issues related to indigenous people of Biafra by the two national dailies analysed. The study shows in figure 3 that 54.5% of *Daily Trust* reports regarding the issues of the indigenous people of Biafra are negative. This has confirmed the position of Ikenna (2016) who argues that the storyline of the modern Igbo in the Nigerian mass media has received a lot of criticisms. The result from *The Nation* also shows that 93.0% of its reports are from the negative frames. This finding agrees with the major assumption of the framing theory as media shapes audience thinking about Igbo thereby seeing their activities illegitimate (Entman, Matthes & Pellicano, 2009). The nature of the framing here also negates the caution put forward by Okoye (2011, p. 268) that “media contents that portray...scenes of...violence should be handled with caution. This call is rationalised behind helping the society to be united than living in conflict.

RQ: 3: Blame games between government and Indigenous people of Biafra

Daily Trust shows that 45.5% of the blame goes to the indigenous people of Biafra but 36.4% of the blames goes to the government. The finding from *The Nation* shows that 37.2% of the reports had no blame trade recorded. This is to say that they had not framed the messages to blame anyone among the parties involved in the

conflict. Notwithstanding this result by *The Nation*, their reports totally condemned the activities of Indigenous people of Biafra. This has confirmed the allegation by Obi (2001) that Igbo people have suffered great frustrations and reverses in Nigerian history. The result of this study has shown that Igbo enjoy very little or no sympathy from the remaining ethnic groups of Nigeria.

8. Conclusion and Recommendations

The goal of this study was to analyse *Daily Trust* and *The Nation* newspapers contents in relation to indigenous people of Biafra struggle for independence. Attention was given to the direction of coverage in terms of priority, blame trade and framing. The results indicate that *The Nation* has more reports on indigenous people of Biafra than its northern counterpart *Daily Trust*. Both the two sampled newspapers were harsh in tone of their coverage against the indigenous people of Biafra.

Consequently, the study recommends that media should ensure that they report sensitive issues of conflict from a more unbiased and objective tone; media should ensure that the opinion of the marginalized group is given space and help in resolving conflict by bringing it to an end. The media should adhere to the core tenet of social responsibility in order to help in getting a peaceful country.

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Community Radio in Promoting Agriculture: A Study of “Agric Panorama” Programme on ABU FM Radio

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Abstract. This study appraises the role of radio programmes in promoting agricultural development using an agricultural programme entitled ‘*Agric Panorama*’ on ABU FM Radio and the town of Shika as a case study. The Survey research method using 250 questionnaires is used to sample the views of residents of Shika in Sabon Gari local government of Kaduna state. Findings from this study reveal that radio has immensely contributed to agricultural development of Shika community especially in the area of application of modern farming methods leading to reduction in farming expenditure and increase in productivity. The study suggests the use of similar programmes in other local languages to promote grass root development. Also, *Agric Panorama* should involve opinion/traditional leaders at grass root level to build confidence on the part of the farmers.

Keywords: Community Radio, Development, Agriculture, Agric Panorama, Shika.

1. Introduction

The term ‘development’ as a concept is associated with a broad range of human endeavors, from agriculture, health, communication, and politics etc. Asemah (2010) sees it as a process of change in attitude, social structure and general acceleration of economic

growth, through reduction of poverty and inequality, noting that development in human society is a multi-dimensional process. At the level of the individual, it implies increased skills and capacity, greater freedom, creativity, self-discipline, responsibility and material well-being. Development involves the creation of opportunities for the realization of human potentials. Human beings have certain basic requirements, which must be satisfied so that they can properly function in the society e.g. enough food, employment and the elimination of the kinds of inequality, which lead to poverty.

Keghku (2005) describe the concept as a gradual process of bringing about positive attitudinal change in the people. It is a continuous process of improving their living conditions, through positive change. The essence of development according to Asemah is change in attitudes, leading to change of habit i.e. by just changing things without concurrent change of habit or attitude is not a sustainable development. Development is seen as a changing process of knowledge, attitude and practices. It is in this context that the writer looks at development.

The multi-dimensional level of development enables us to study development at either grass root or national level and those elements that promote it. One of those elements is the media and how it contributes towards development at

all levels. Radio help in the development of Africa and contribute to national development and integration (Roger, 1987).

In recent years, development programming has been focused on the overriding issues of equity and equality in the distribution of the gains from development efforts. A lot of concern has been expressed about the predicament of the rural poor and the imperatives of several baseline requirements for human development. These include access to land and water resources, agricultural inputs and services, including extension and research facilities, and participatory development strategies to tackle rural poverty, with social equity and civil participation viewed as essential to well-rounded socio-economic development (UNDP, 2006). This people-centered development programming helps in emancipating people from poverty, ignorance, filth, squalor, deprivation and exploitation. The media as agent of change focuses on the events, people, issues, trends, etc affecting the community to promote development at all levels. The central mandate of community radio is to promote development at the grassroots. This type of development involves the people themselves and seeks to bring about positive change in their living conditions and environment (Dickson, 2010).

This study investigates the role of community broadcasting in promoting development at grass root. It specifically, focus on the radio programme '*Agric Panorama*' being broadcast on a community radio; ABU Samaru FM Radio.

2. Radio as a means of Communication

Idebi (2008) defines radio as a medium used for sending and receiving messages through the air using electronic waves. It is an electronic device used to receive sound which forms the programs people listen. Radio is one of the primary means by which information and entertainment are delivered to the public in virtually every nation around the world and the most effective medium of communicating with people.

Radio broadcasting has become established over time as not only the most popular means of

communication and of disseminating information, but also due to the oral tradition of the society the preferred medium of cultural expression in Nigeria. Radio which was originally an instrument of colonial government subsequently came to be used in a variety of ways, gradually taking on a range of missions linked to different political, economic and cultural challenges integral to Nigeria's development. The personal and unique character of radio makes it one of the most appealing and universal mass media for participatory communication and development (Teer-Tomaselli and De Villiers, 1998).

Radio has the capacity to reach large audiences, both young and old, including those in remote, underdeveloped and impoverished areas of the developing world. In the absence of other forms of media such as television and newspapers, radio has proven to be a powerful and vital means of entertainment and communication that guarantees community involvement in the communication process (Bosch, 2007).

The appearance of local radio stations (private commercial stations, as well as community based and associative stations) in the 1990s signaled profound breaks with traditional radio and with the national information system. As a result of Frequency Modulation (FM), broadcast and listening quality improved, producing major strides toward greater professionalism. As such, the sector has continued to provide news and information relevant to the needs of community members in the form of a medium which empowers them politically, socially and economically, through locally produced and oriented media content (Wigston, 2001).

Communication is central to the success of development and democracy. And community radio is a crucial communication tool that is easy to run and maintain. Radio is the most accessible mass medium of communication in use. It is a particularly effective means of communication in communities where most people can neither read or write, as those people can speak and listen. Its listenership is therefore far more numerous than the readership of newspapers and audience of television, particularly in developing countries.

Technically, its production costs are significantly lower than those of most printed or video community media. Likewise, its reception is easier and more affordable than that of community video or television, and leaves out the distribution nightmares of community publications (Lumko, M., Marie-Hélène B., Nkopane, M. & Kodjo, N. (1998).

3. The Concept of Community Broadcasting

Community radio, rural radio, co-operative radio, participatory radio, free radio, alternative radio, popular radio or educational radio began some 50 years ago in Latin America. Poverty and social injustice were the stimulus for those first experiences, one beginning in Bolivia in 1947 and known as the Miners' radios and another in Colombia in the same year, known as Radio Sutatenza/Acción Cultural Popular. In Africa, community broadcasting started in Kenya by UNESCO in May 1982 named Homa Bay community radio, on Lake Victoria. The various definitions of community radio that have been formulated share many common elements. The simple and catchy phrase, 'Radio by the people and for the people' is often used as a good summary. This phrase captures well the essential principle that must be in place for a broadcasting service to be considered true community radio. Community broadcasting is a non-profit service that is owned and managed by a particular community, usually through a trust, foundation, or association. Its aim is to serve and benefit that community. It is, in effect, a form of public-service broadcasting, but it serves a community rather than the whole nation, as is the usual form of public broadcasting described above. Moreover, it relies and must rely mainly on the resources of the community (Colin and Sonia (2001).

Section nine of the National Broadcasting Code describes community broadcasting as the third tier of broadcasting and a key agent of democratization for socio-cultural, educational and economic development. It is a non-profit, grassroots public broadcast service medium through which community members are able to contribute and foster civic responsibilities and

integration. Such communities include a local, non-profit organization, an educational institution (campus), a cultural association, a co-operative society, and a partnership of associations. A community broadcasting service shall be owned and controlled by the community through a trusteeship or a foundation with a Board of Trustees and all the operating broadcast equipment of the service shall be sited within the community.

Community radio stations are established for various reasons. In some European, Australian and North American cases, minority groups (such as indigenous, immigrant, refugee or black communities) were marginalized by mainstream media and therefore used community radio as a tool for highlighting their rights and raise issues concerning their interests; in South Africa, the apartheid laws ensured that the majority of citizens were disadvantaged and marginalized in the interest of the white minority. This led to struggles engaged by progressive forces, which then led to the establishment of community radio as a tool for development by community groups from the historically disadvantaged majority. Members of associations can set up radio stations to further the interests of members e.g. Labour Unions, Right Activists, Gender groups etc (Lumko, Marie-Hélène, Nkopane, & Kodjo (1998).

A study by Huizies (2007) reveals that community radio remains a crucial component of the global media environment. It contributes immensely to the social and economic development of the entire society and provides alternative media for listeners, active community participation and is now becoming the largest talent feeder to both the Public and Commercial Broadcasters. With the increasing concentration of the ownership of mass media, the role of community radio becomes important in the defense of unprejudiced access to information and the "strengthening of a people driven participatory democracy.

4. Brief About 'Agric Panorama'

Agric Panorama was introduced by the Farm Broadcasts Programme unit of the NAERLS for

disseminating agricultural information to Northern states in the early eighties. It is a radio programme aimed at disseminating modern system of agricultural to specific target audience i.e. practicing or potential farmers. The program combines both spoken and musical items; making it entertaining and interesting with a definite purpose of informing and educating listeners (Omenesa and Shittu, 2004).

When NAERLS received the mandate to provide extension support services to the entire Country, the Farm Broadcasts Programme expanded its radio programmes to include other Nigerian languages like Igbo, Kanuri, Nupe, Fulfulde, Yoruba and Pidgin English. To ensure that each language zone is adequately catered for in the programmes, each Zonal liaison office has a radio producer/broadcaster. They liaise with the Universities, Research Institutes, Polytechnic and ADPs in their zones to produce programmes that will serve their peculiar needs. Such programmes are then aired by the local radio stations.

The program features experts from various fields of agriculture who focus attention on only one topic. *Agric Panorama* is a typical radio feature program adopted and approved by the NAERLS/ABU Zaria weekly and is been aired on ABU Samaru FM 101.1 every Monday at 9:30am with a repeat broadcast on Saturday at 10:30am to give farmers a voice to speak out, extends and disseminate proven farming technologies to farming communities. The producer and presenter of the program is Abdul'aziz Haruna.

5. Theoretical Framework

This study is anchored on Development Media Theory propounded by Dennis McQuail in 1987. The theory canvasses media support for an existing government and its efforts to bring about socio-economic development. It argues that until a nation is well established and its economic development well underway, media must be supportive rather than critical of government, but assist them in implementing their policies. The theory favors journalism that seeks out good news, requires that bad news

stories are treated with caution, for such stories could be economically damaging to a nation in the delicate throes of growth and change. The media is seen to fulfill particular social and political duties; hence media freedom while desirable should be subordinated to national integration, socio-economic modernization, promotion of literacy and cultural creativity (Adekoya, 2012).

The fundamental tenets of the theory as identified by McQuail (1987) are:

- Media should accept and carry out positive development tasks in line with nationally established policy;
- Freedom of the press should be opened to restriction according to economic priorities and development needs of the society.
- Media should give priority in news and information to link with other developing countries, which are close geographically, culturally or politically.
- In the interest of development ends, the state has the right to intervene in or restrict media operations and devices of censorship, subsidy and direct control can be justified.
- Journalists and other media workers have responsibilities, as well as, freedoms in their information gathering and dissemination tasks.

This theory is relevant, as the programme *Agric Panorama* produced by the National Agricultural Research and Extension Liaison Services' (NAERLS), is a medium designed to teach modern agriculture with a view to boost farming and improve the living standard of the rural populace. The programme canvasses support for government policy on food security and its efforts to bring about socio-economic development.

6. Research Objectives

- To determine how the program *Agric Panorama* contribute to agricultural development of Shika people.
- To assess the level of compliance to modern farming methods presented in

- Agric Panorama by Shika people.
- To determine the benefits farmers derive from applying new farming methods.

7. Research Questions

- In what ways do the program *Agric Panorama* contributes to the agricultural development of Shika people?
- To what extent do people of Shika apply modern farming methods aired by *Agric Panorama*?
- What benefits do local farmers derived from adopting the new farming techniques?

8. Research Method

The research design is descriptive survey. Descriptive surveys document a particular state of affairs regarding public opinion or behaviour or population characteristics at one point in time (Gunter, 2000). The study employed questionnaire as an instrument of data collection, since the study is focusing on the educated members of the community. The questionnaires were distributed to 250 farming households in Shika community on the role of community radio in promoting agricultural development with specific reference to ‘*Agric Panorama*’ programme aired on ABU FM radio.

The sampling technique considered for this study is simple snowballing sampling. The Snowball sampling is used most often in academic research. A researcher randomly

contacts a few qualified respondents and then asks these people for the names of friends, relatives, or acquaintances they know who may also qualify for the research study. These referrals are then contacted to determine if they qualify for the research (Wimmer and Dominick (2011). This is possible since Shika is a small community where majority of its residents know one other.

The village head of Shika; Alhaji Abdulkareem Aboki Shika puts the population of the village at 5,000 inhabitants. He further explained that Shika community is divided into 12 districts, each controlled by Mai-Anguwa (Ward head). The majority of the 5,000 inhabitants of Shika community are people whose main occupations are civil service, farming and trading.

The researcher mathematically calculated 5% of 5000 (Shika Community) which equals to 250 which implies that 250 questionnaires are administered to Shika community. This is adequate as Barbie (2007) recommends a minimum of 5 percent of any population as sample size that can be used to represent a bigger population.

9. Data Presentation

The data gathered for this study is analyzed along with the application of descriptive and analytical method objectively to aid quick understanding of the data i.e. the data will be presented in a descriptive way. The data generated will be presented in a simple percentage table as illustrated below:

Table 1: Sex of Respondents

Variable	Frequency	Percentage
Males	132	52.8
Females	118	47.2
Total	250	100

Source: Field Survey, 2016

Table 1 above shows that 132 (equivalent to 52.8%) respondents are males, while the remaining 118 are females.

Table 2: Respondents Opinion on How Often They Use Radio

Variable	Respondents	Percentage
Very often	84	33.6
Often	123	49.2
Rarely	29	11.6
Never	4	1.6
Total	250	100.0

Source: Field Survey, 2016

Table 2 above indicates that 84 out of 250 respondents very often use radio as a source of news and information.

Table 3: How Beneficial is the Information they received from radio programmes

Variable	Respondents	Percentage
Very Beneficial	80	32.0
Beneficial	156	62.4
Not Beneficial	14	5.6
Total	250	100

Source: Field Survey, 2016

Table 3 above indicates that 80 out of 250 respondents describe the information they received from radio as very beneficial.

Table 4: Respondents Opinion on What They Think About the Programme 'Agric Panorama

Variable	Respondents	Percentage
Informative and Educative	138	55.2
Entertaining	41	16.4
Educative	60	24.0
Total	250	100

Source: Field Survey, 2016

Table 4 above shows that 138 out of 250 respondents believed that Agric Panorama is Informative and Educative

Table 5: Respondents Opinion on the Extent They Apply the Information They Get from Agric Panorama in Farming?

Variables	Respondents	Percentage
Very large extent	49	19.6
Large extent	123	49.2
Rarely	68	27.2
Never	8	3.2
Total	250	100

Source: Field Survey, 2016

Table 5 above shows that 49 out of 250 respondents apply information they received from Agric Panorama.

Table 6: What Benefits Have You Derived From Applying New Farming Techniques Aired on Agric Panorama?

Variables	Respondents	Percentage
Improved yields	75	31.6
Reduce cost of labor	76	30.4
Increase revenue	95	38.0
Total	250	100

Source: Field Survey, 2016

Table 6 above shows that 75 out of 250 respondents benefit from Agric Panorama on how to improve

productivity.

Table 7: How Has *Agric Panorama* Contributed To Agricultural Development In Shika?

Variables	Frequency	Percentage
By providing latest information on agriculture	99	39.6
Informing farmers on how to procure loans.	79	31.6
Informing them on the best seeds to cultivate	61	24.4
All of the above	7	2.8
Total	250	100

Source: *Field Survey, 2016*

Table 6 above shows that 99 out of 250 respondents believe that *Agric Panorama* assist farmers by providing latest information on modern farming system.

RQ. 1 In what way does the program *Agric Panorama* contribute to the agricultural development of Shika people?

As presented in table 4, a total number of 138 respondents (equivalent to 55.2%) believed that *Agric Panorama* is Informative and Educative
 RQ. ii. To what extent do people of Shika apply to a very large extent, modern *Agric/farming* methods disseminated through *Agric Panorama*?

As presented in table 5, a total number of 49 respondents (equivalent to 19.6%) to a very large extent apply the information they get from *Agric Panorama* in Farming, 123 respondents (equivalent to 49.2%) to a large extent apply the information while 68 equivalent to 27.2% rarely apply the information from the radio programme *Agric Panorama*.

RQ. iii. What benefits do local farmers derived from adopting the new farming techniques?

As presented in table 6 shows that 75 respondents equivalent to 31.6 % believed that the programme helped in improving their annual production yield, 76 believed that it has reduced their cost of labor, while 95 respondents equivalent to 38% acknowledged that the programme has succeeded in boosting their revenue.

10. Discussion of Findings

The first objective this study set to achieve was

determining how the programme ‘*Agric Panorama*’ contributes to agricultural development of Shika people. Results gathered and presented earlier shows that 55% of the farmers acknowledged that the programme *Agric Panorama* contribute to the agricultural development of Shika people.

The second objective of this study was to assess the level of compliance to modern farming methods presented in *Agric Panorama* by Shika people. Data shows that 19.6% of the farmers apply to a very large extent the information they get from *Agric Panorama* in Farming, 49.2% to a large extent apply the information, while 68 equivalent to 27.2% rarely apply the information from the radio programme *Agric Panorama*.

The third objective of this study was to determine the benefits farmers derive from applying new farming methods. Data shows that 31.6 % of the farmers say the programme has helped them in improving their annual production yield, 30.4% believed that it has reduced their cost of labor, while 38% of the farmers say the programme has succeeded in boosting their revenue.

11. Conclusion

From the findings above, the researcher concludes that radio programme like *Agric Panorama* has contributed immensely to grass root development especially among those living in Shika community.

Mass media over the years have been engaged on enlighten, educating, mobilizing and informing people and government on the need

for grass root development. The findings show that radio programme like *Agric Panorama* has contributed in no small measure to agricultural development of Shika community. Also, the findings show that Media in its quest to bring about development in grass root level should endeavor to disseminate relevant information regarding development to people at local level.

12. Recommendations

From the findings of the research work, the following possible recommendations are made:

- More similar programmes should be introduced in other local languages to promote grass root development.
- *Agric Panorama* should involve opinion/traditional leaders at grass root level to build confidence on the part of the farmers.
- For community radio to remain central to creating a strong and socially responsible civil society, it must develop an independent source of revenue generation to enable it work efficiently.

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A Comparative Syntactic Analysis of Focus Construction: A Case Study of Igbo and Yoruba Languages

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Abstract. Every language in the world has peculiar features. It is the non-features of a particular language that account for the differences in language. What each individual language does is to choose its specific parameters from the principles that universal grammar (UG) has presented. Hence, focus construction is one of the principles which all languages have in common. But the parametric dimension varies from one language to another. This research paper is a comparative analysis of focus construction of Igbo and Yoruba language sentences with the view of finding out their uniformities and divergences in the area of derivations, positions, markers and their features.

Keywords: focus construction; focus marker, complementizer, structural positions, Government and Binding Theory, Trace movement principle, subjacency conditions, extracting site and landing site, resumptive pronoun

1. Introduction

The issue of focus construction has turned into an interesting research in the area of syntax which triggered researchers to get involved in the study of linguistics. This makes Aboh, Hartmann and Zimmermann (2008) to opine that:

Focus strategies in African languages contributes to the ongoing discussion of focus by investigating focus related phenomena in a

range of African languages, most of which have been under represented in the theoretical literature on focus.

In the article, several theoretical and methodological perspectives of focus strategies in Niger-Congo and Afro-Asiatic languages ranging from generative analysis to typological generalization across languages were analyzed which reveals new focus strategies and tone focus distinctions that are not discussed in the theoretical literature of focus construction. Hence, focus construction is one of the general frameworks of the theory of universal grammatical principles which are found in almost all the languages in Africa, but different variations and unique parametric approaches are involved. Therefore, it is highly imperative to look into the parametric approaches involved in focus construction in Igbo and in Yoruba to find out the uniformities and divergences in both languages in the area of derivation, position, their focus markers and features.

2. Purpose of the research

The purpose of this research is to make a comparison between Igbo and Yoruba languages with the aim of finding out the similarities and distinctions that exist between the two languages in the areas of their focus markers, the derivation of their focus constructions from “D- structure to S- structure”, their structural positions and their movements. The research also verifies whether

the trace movement principle and subjacency conditions are satisfied when such movements occur.

3. Theoretical frame work

The researchers adopted the theoretical frame work of Government and Binding Modular model theory of Syntax proposed by Chomsky and associates in (1977) in his lecture on Government and Binding theory (GB) was introduced when Chomsky proposed some major revision in the Extended Standard Theory. GB Theory accounts for all roles that involve movement with a universal transformational rule called move-a (move-alpha). The rule is bound by subjacency condition in all languages. (Radford: 1988, Ndimele:1992, Ogbonna :2008, Ayodele and Nwokeji :2012).

4. Statements of research:

- Focus markers in Igbo and Yoruba languages are not the same.
- The two languages realized focus construction at the S-structure.
- The two languages have the same structural position but differ in their derivation.
- Both languages fulfilled the trace movement principle.
- Both satisfied the subjacency conditions.

5. Research questions:

In the cause of this research, these questions below will be answered:

- Is there any difference between focus marker in Igbo and Yoruba language?
- Do the two languages have the same structural position?
- Do the two languages realize focus construction at the s-structure?
- Does focus construction in both languages fulfill the trace movement principle?
- Do the two languages satisfy the subjacency conditions?

6. Research data

The data used for this research were collected from oral interview conducted from some

selected individuals who made some simple sentences and changed them to focus constructions in both languages. The researchers made use of some available literatures. However, researcher’s experiences counted a lot since they are competent speakers of both languages.

6.1 Research limitation

This research is limited to two Nigerian languages-Igbo and Yoruba languages which among the three major languages the Federal Government recommended in Nigeria. They are also part of the major African languages Ayodele and Nwokeji (2012) asserting Onwuejeogwu (1991) and Nwachukwu (1988) uphold that Igbo language and other African languages which Yoruba language is among emerged from the Proto-Niger linguistics groups, the two languages belong to the Niger-Congo language family. The two languages are part of the “Kwa sub-family.” The research is limited mainly to the comparison of focus constructions between the two languages to find out the similarities and differences that exist between them in the area of their focus markers, their derivations, their structural positions and their movement.

Lists of syntactic Abbreviations

Foc	/
FM.....	Focus marker
COMP.....	Complementizer
INFL/I.....	Inflection
Pro.....	Pronoun
NP.....	Noun Phrase
N.....	Noun
V.....	Verb
VP.....	Verb Phrase
+AGR.....	+Agreement

+TNS.....	.....
.... +Tense	
PAST.....	.....
.....Past tense	
CP.....	.....
.....Complementizer Phrase	
Spec-	
CP.....s	.....
pecifier of complemenzer	
Spec.....	.....
.....Specifier	
Ti.....	.....
.....Trace of the moved object of the verb	
FP.....	.....
.....Focus Phrase	

7. Definition of Certain Terms

Focus construction: It is a vital word or phrase in an expression that are used to disclose information or draw attention in a context with the aim of bringing new concept

Focus Markers: They are syntactic elements used in realizing focus constructions in a sentence.

Government and Binding Theory: It is known as principles and parameters. It refers to a specific approach to linguistic theory. It focuses on principles rather than rules. It followed from extended standard theory in transformational grammar. (Radford: 1988)

Trace Movement Theory: The theory came on board Chomsky made a revision on the extended slandered theory which is called the revised extended standard theory (REST). It involves with the ideas of trace movement theory of rules .Haegeman (1991) views trace as an empty category which encode the base-position of a moved constituent. It can be indicated by “t”. Ndimele (1992) looks at it as ‘ghost copy’ of the moved element while Lamdi (1990) refers to it as a shadow which can be used as an indicator that an element has moved out of that position. Also, Ayodele and Nwokeji (2012) asserting Taiwo (2008) view trace as an identical empty category.

Trace Movement Principle: It is a principle in which a linguistics unit is subject to the availability of a landing site so that the moved element does not crash-land on another linguistic unit at the targeted position. The only available landing site for empty category is the Spec-CP node, Ndimele (1992) Moreover, trace movement principle says that all moved constituents most carry along with them the grammatical properties associated with them at their original extraction site (Ndimele:1991). However, a moved element must enter into bound with its trace at the original site. This means that the moved NP object to the verb and its trace most be co-index.

Subjacency Condition: Focus construction is subject to subjacency condition. According to Haegeman (1991) subjacency condition says that movement cannot cross more than a bounding node. He points out those bounding points are subject to parametric variation. For instance, in English, IP and NP are bounding node while in Italian, CP and NP are bounding node.

Extraction site/ Landing site: Extraction site is the original position of the moved element before it is been moved while landing site is the exist position the moved element will stay finally. Trace is being realized at the s-structure phenomena.

8. Review of Some Related Literature on Focus Construction:

The issue of focus construction has turn into an interesting research in the area of syntax which triggered researchers to get involved in the study of linguistics. This makes Aboh, Hartmann and Zimmermann (2008) to opine that:

Focus strategies in African languages contributes to the ongoing discussion of focus by investigating focus related Phenomena in a range of African languages, most of which have been under-presented in the theoretical literature of focus.

In the article, several theoretical and methodological perspectives of focus strategies in Niger-Congo and Afro-Asiatic languages ranging from generative analysis to typological generalization across languages were analyzed

which reveals new focus strategies and tone focus distinctions that were not discussed in the theoretical literature of focus construction. Hence, focus construction is one of the general frame work of the theory of universal grammatical principles which are found in almost all the languages in Africa but different variations and unique parametric approaches toward the subject is in question, In linguistics concept, various meanings and explanations have been given to focus construction. To buttresses this, Bamgbose (1990) views focus as a construction used in calling attention to phrase structure and sentences. However, Chomsky and Halle (1968) connects focus construction as a link to other general cognitive processes which include attention orientation. In another dimension, Halliday (1967) sees focus as a grammatical category that determines which part of sentence contributes new non-derivable contractive information.

To support the point, Givon (2001) connects focus construction with the packaging of new, old and contrasting information. Halliday (1967) argues that focus and information structure have things in common in the area of coding of information. Hence he says:

Focus is related to information structure. Contrastive focus specifically refers to the coding of information that contrary to the presupposition of interlocutor.

Moreover, Lambrecht (1994) establishes three main types of focus constructions: predicate focus, structural \ argument focus structure and sentence focus structure. To throw light on it, Bamgbose (1990) describes structural position of Yoruba focus construction as follow: subject position, object position, qualifier position, adverb position and main verb position. This entails that in Yoruba language, there are five ways in which a simple sentence can be restructured to focus construction. This means that focus construction can take the position of a subject, object, qualifier, adverb or the main verb. Whatever position focus construction takes, it must be moved forward to the left position. The same structure is being applied to Igbo language except its derivation. Also Dinter (2002) in looking at the English language, views

focus in term of using it in high lighting part of a sentence, hence he says:

In English grammar, the term focus is used to refer to the highlighting of part of a sentence for communication purposes. One part of a sentence is moved to a place where it has the greatest communicative impact.

Moreover, Jackendoff (1972) Root (1988) Krifka (1992) argue that focus consists of a feature that is assigned to a node in the syntactic representation of a sentence. On the other hand, Dinter (2002) shading light on what Gravstein etal argue, note that focus is what is emphasized in either an utterance or in writing. They argue that such a re-ordering of sentence structure depends on the speaker's or writer's perspective of communication.

8.1 Features of Focus Construction

- In focusing, the structural position of any particular focus always moves backwards to the left position.
- All focus constructions are derived from simple sentence.
- It has focus construction markers.
- It discloses information in an expression.
- It draws attention and lays more emphasis.
- It brings in new concept.
- Focus construction markers in both languages:

Focus markers is an element used in realizing focus construction in syntax. It is a universal principle that cuts across to almost all the languages that has +focuses. But languages vary with respect to morphological realization. However, Frascarlli and Puglielli (2000) claim that focus marker's generation comes from the nominal and verbal focus marker derived from the same copular form. They argue that that focuses construction in marking languages must be considered to originate from cleft construction whose meaning can be compared to the English "it is \that". Viewing focus construction from a syntactic point of, they consider focus as a complex sentence as cleft constructions are. frascarlli and pugliellui (2002)

in proving that focus markers (fm) are derived from the nominal and verbal focus marker which are derived from copula form and to affirm that focus markers originated from cleft construction whose meaning can be compared to the English “it is\that” used the focus system of Somali dialect which has been extensively illustrated and analyzed in Svolacchia et al (1999) to prove their points. Svolacchia et al. (1999) claim that the Somali focus system which is one of the richest among Cushitic languages also dispose of a third construction to realize focus.

Pointing from Frascarelli and Puglielli (2002) furnishes a significant observation that focus markers in Somali dialects are derived from an original copular form which includes a 3rd person elicit pronoun as shown below.

ak + y + aa
Be 3 SGM press

However, looking at the pattern in which they derived focus markers in Somali dialect and the claim that focus markers generation comes from cleft nominal and verbal focus markers which they argue that it originated from cleft construction whose meaning could be compared to the English “it is \that”. This makes the researchers to be in support with Frascarelli and Puglielli (2003) that Igbo focus markers “O bu” meaning “it is \that”. This is a combination of two words originated from nominal and verbal elements which are used to realize focus construction in Igbo language in which “o” meaning [he/ she/ it] a third person singular originated from a nominal element while “bu” which represent “is,” verb to be, is a verbal element. This could also be considered as a cleft construction in English language which could also be considered as focus construction at the same time is originated from cleft construction. In the same view, Bamgbose (1990) affirms that focus construction in Yoruba language is realized from focus marker (fm) “ni” meaning [it is / was].

Derivation of focus construction from simple construction to focus and from extracting site to landing site:

In both languages, all focus construction is derived from simple sentence to focus. To buttress this, Bamgbose (1990) claims that

focus construction in Yoruba language is derived from simple sentence using a focus marking “ni” meaning [it is /was] as a focus construction marker. In Igbo language, focus constructions are derived from simple sentences. Examples in both languages are below

Igbo simple construction: sentence (1a)

Ngozi siri ofe
Ngozi cook+past soup.
Ngozi cooked soup.

Igbo focus construction sentence (1b)

O bu ofe ka Ngozi siri
Foc soup comp Ngozi cook+past
It was soup that Ngozi cooked.

Yoruba simple construction: sentence (2a)

Nike se obe
Nike cook+past soup.
Nike cooked the soup

Yoruba focus construction: sentence (2b)

Nike ni o se obe
Nike foc pro cook+past
soup.

It was Nike that cooked the soup.

In comparison, looking at the derivations of the two languages in sentence (1a) and (2a), you will discover that both sentences are in simple sentences. While sentence (1b) and (2b) are focus constructions which are derived from sentence (1a) and (2a). These proved that focus constructions are derived from simple constructions. Another significant feature of focus construction is the issue of structural position which allows any particular focus to move to the left position while focused. To prove this, in sentence (1a) ofe “soup” this was at the right position moved to the left position in the sentence. While in sentence (2a) Nike “name of a person” moved from the right position to the left position.

Structural position of focus constructions and their movements analyses in both languages:

In focusing, the structural position of any particular focus always moved from the extraction site that is the original position to the landing site that is the final position of the element. It always at the left position. In these analyses, Bamgbose’s view of different types of structural positions will be used

Focusing the subject position:

Focusing the subject position of a construction is the type in which the subject of sentence is being displaced which draws attention in the context. In Yoruba focus construction, the noun is moved and is replaced with a pronoun “o” meaning [he/she/it] However, Taiwo (forthcoming) claims that the subject position in Yoruba language must not be left empty even after movement has taken place. Therefore, a resumptive pronoun must be left behind whenever movement takes place. He calls this resumptive pronoun a trace of the moved constitution. He revises the trace movement theory which according to Radford (1988) which says:

Any moved constituent x leaves behind at its extraction site an identical Empty category [x^{ne}]. This empty category is known as trace and the moved Constituent is said to be the antecedent of the trace.

Taiwo (forthcoming) revises this theory to accommodate the resumptive pronoun which is trace of a moved constituent when movement occurs. The theory says:

Any moved constituent x leaves behind at its extraction site an Identical category [x^{ne}]. This identical category can be an identical Category or a resumptive pronoun. The category is known as trace And the moved constituent is said to be the antecedent of the trace.

(Taiwo: forthcoming)

However, subject position of focus construction in Igbo language does not require a pronoun as a replacement of the subject element as a trace rather, the focus marker “o bu” comes before the element. Below are some examples in both languages.

Igbo simple construction: sentence (3a)

Ugo riri ji
Ugo eat + past yam.
Ugo eat yam

Igbo focus construction: sentence (3b)

O bu Ugo riri ji.
foc Ugo eat + past yam.
It was Ugo that ate yam.

Yoruba simple construction: sentence (4a)

Tolu je isu.
Tolu eat +past yam
Tolu ate yam.

Yoruba focus construction: sentence (4b)

Tolu ni o je isu
Tolu foc pro eat +past yam.
It was Tolu that ate yam.

Looking at sentence (3b) you will observe that the focus marker “o bu” precedes the subject “Ugo”. While in sentence (4b) the subject “Tolu” is moved to the front which precedes the focus marker “ni” and is replaced with a resumptive pronoun which is the trace of the moved element .Moreover, all focused elements must precedes the focus marker in Yoruba language.

8.2 Focusing the Object Position

The object position focusing construction involves the movement of the object from the extraction site (final position) to the landing site (initial position). The only different in the two languages is that the Igbo focus marker “o bu” precedes the object. While in Yoruba the object precedes the focus marker. Another different between the two languages is that in Igbo object focusing position, the use of “ka” meaning “that” which is one of the complementizer in Igbo is involved. It comes after the object. Below are some of the examples in both languages.

Igbo simple construction: sentence (5a)

Ada siri ofe.
Ada cook+past soup.
Ada cooked the soup.

Igbo focus construction: sentence (5b)

O bu ofe ka Ada siri.
foc ofe comp Ada
cook+past.

It was soup that Ada cooked.

Yoruba simple construction: sentence (6a)

Bola se obe.
Bola cook+past soup.
Bola cooked the soup.

Yoruba focus construction: sentence (6b)

Obe ni Bola Se.
 soup foc Bola cook+past.
 It was soup that Bola cooked.

Looking at sentence (5b), the “ofe” in sentence (5a) which is at the final position is moved to the position of the subject when focused and a complementizer “ka” is added after it. Also, in sentence (6b) you will discover that the “obe” in sentence (6a) is moved to the position of the subject.

Focusing the qualifier position:

In Yoruba, when a qualifier in a noun phrase is being focus, a qualifying pronoun is used to replace the qualifier that is being displaced or moved. However, in Igbo, a noun is been replaced to qualify a noun. The qualifier noun precedes the noun it qualifies. Below are some examples in both languages.

Igbo simple construction: sentence (7a)

Obi kɔwara efere ya.
 Obi break+past plate his
 Obi broke his plate.

Igbo focus construction: sentence (7b)

O bɔ efere Obi kɔwara.
 foc plate' Obi break+past.
 It was obis' plate that broke.

Yoruba simple construction: sentence (8a)

Ade fo awo re.
 Ade break+past plate his.
 Ade's plate broke.

Yoruba focus construction: sentence (8b)

Awo Ade ni o fo.
 Plate' Ade foc pro
 break+past.

It was Ade's plate that broke.

Looking at sentence (7b) and (8b), you will observe that efere “plate” in sentence (7a) and awo “plate” in sentence (8a) moved from the final positions to the initial positions as qualifiers. Also “ya” [his] in sentence (7a) and “re” [his] in sentence (8a) which were at the final positions were removed while focusing.

8.3 Focusing the Main Verb

In Yoruba language, when the verb in a sentence is not more than one, the verb will be focused, but

if the verb is more than one, as in the case of serial verb, one out of the verbs will be focused. The verb that is being focused will be nominalized in partial repetition and the repeated verb will be at the front. Likewise in Igbo, the verb is been reduplicated and the reduplicated verb precedes the complementizer “ka” meaning “that”. Below are some examples in both languages.

Igbo simple construction: sentence (9a)

Eze zɔrɔ ewu.
 Eze buy+past goat.
 Eze bought a goat.

Igbo focus construction: sentence (9b)

O bɔ ozɔzɔ ka Eze
 zɔrɔ ewu.
 foc buying comp Eze
 buy+past goat.

It is a fact that Eze bought a goat.

Yoruba simple construction: sentence (10a)

Ṣola ra ewure.
 Ṣola buy+past goat.
 Ṣola bought a goat.

Yoruba focus construction: sentence (10b)

Rira ni Ṣola ra ewure.
 Buying foc Ṣola buy goat.
 It is a fact that Ṣola bought a goat.

Looking at sentence (9b) and sentence (10b) you will discover that the main verb in sentence (9a) “zɔrɔ” and “ra” in sentence (10a) are duplicated and are displaced to the front position and the main verbs go back to present position.

Focusing the adverb position:

In both languages anytime an adverb is being focused, the adverb is moved to the front position. In the case of Igbo language, there is no single word that represents an adverb but when a preposition precedes a noun it can mean an adverb. Example:

Igbo simple construction Sentence (11a)

Ngozi biara n'isiututu.
 Ngozi Come+past in head
 morning.

Ngozi came early in the morning.

Adverb can also be derived in Igbo by partial duplication of two nouns. Example

Oso +oso =osiiso meaning “quickly.”

Below are examples of adverb position in both languages:

Igbo simple construction: sentence (12a)
 Oluchi biara n'isiututu
 Oluchi come+past in head morning.

Oluchi came early in the morning.
 Igbo focus construction: sentence (12b)
 O bu n'ututu ka
 Oluchi biara
 foc in head morning comp
 Oluchi come+past.
 It was early in the morning that Oluchi came.

Yoruba simple construction: sentence (13a)
 Bola wa aaro kutu.
 Bola come+past in morning early.
 Bola came early in the morning.

Looking at these sentences, you will observe that the adverbs in the sentences were moved to the front.

8.4 Analyzing focus movement in both languages using phrase marker (Tree Diagram) :

For the purpose of this analysis, sentence (5a), sentence (5b), (6a) and (6b) which involve the movement of the object positions from the extraction site to the landing site will be used to prove that focus construction involves movement from the extraction site to the landing site. Also, to prove that both languages satisfies the trace movement principle and the subjency condition.

D-structure (underlying structure) Igbo simple sentence (5a)
 Ada siri ofe
 Ada cook+past soup.
 Ada cooked soup

Focusing the object position of Igbo focus construction to show movement from the extraction site to its landing site using tree diagram.
 Sentence (5b) O bu ofe ka Ada siri.
 y foc soup comp Ada cook+past.

It was soup that Ada cooked.

D- Structure (underlying structure) Yoruba simple sentence (6a)
 Bola se obe
 Bola cook+past soup
 It was Bola that cooked the soup.

9. Summary / Conclusion

In this research, the researchers made a comparison between two languages Igbo and Yoruba with the aim of finding out the similarities and distinctions that exist between the two languages in the area of their focus markers, derivation of their focus constructions from D-structure to S-structure, their structural positions and their movements. We also verified whether the trace movement principle and subjacency condition were satisfied. In the course of the research, we found out that focus markers in Igbo and Yoruba are not the same. The two languages realize focus construction at the S-structure. The two languages have the same structural position but differ in their derivations. Both languages satisfied the subjacency condition. Also, they fulfilled the trace movement principle.

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Part Three

Entrepreneurship Studies

Value Added Agricultural Output and Macroeconomic Dynamics in the Nigerian Economy

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Abstract. This paper investigated the impact of macroeconomic variables on the Nigerian value-added agricultural output from 1971 to 2016 both in the short and the long-run. The descriptive statistics and stationarity tests were conducted prior to the long run tests using the Johansen co-integration procedure and the Vector Error Correction Model (VECM) technique. In the third step, the serial correlation and the heteroscedasticity tests were conducted in addition to the Impulse Response analysis. The result revealed the absence of linkage between each of interest, exchange rate and employment in agriculture, and oil revenue on the one hand and agricultural value added output on the other. However, external reserves and real per capita GDP as a proxy of aggregate demand shock in the short term significantly affected the output of the value chain. In the long run, inflation rate, exchange rate and agricultural employment rates were positively related with and are significant in forecasting the value-added agricultural output. However, the interest rate, external reserves, aggregate demand shock and Oil revenue although significant, inversely affect value added agricultural output. The study recommended continued the diversification of the economic base of the country. In addition, employment – generating policies and measures that create aggregate demand together with subsidized interest rate regime in line with the Anchor borrowers programme should be intensified. Agriculture must run as business.

Keywords: Agricultural output, Exchange rate, Fiscal policy, Inflation rate, Interest rate, Unemployment rate, Monetary policy.

JEL classification codes: E24, E31, E52, E62

1. Introduction

Agricultural production in Nigeria is determined by the functions of macroeconomic environment shaped by monetary, fiscal and trade policies. The contributions of the agricultural sector to GDP have oscillated widely over the years. At the beginning of the time scope of this study in 1971, the annual rate of growth of the agricultural output was a mere 1.7%. The lowest ebb ever was 4.7% recorded in 1986 which coincided with the commencement of the Structural Adjustment Programme initiated by the Babangida government to restructure and diversify the economy. The highest growth of 110% was attained in 2002 (National Bureau of Statistics, 2017).

Several policy formulation and deployment by various governments in promoting agriculture appears to have had minimal effect on the Dutch disease that assailed Nigeria since the advent of the discovery of crude oil in commercial quantities at Oloibiri in 1956. This resource curse is the co-existence of vast wealth in natural resources and extreme personal poverty (Auty, 1993). Before the discovery of crude oil, agricultural produce dominated the export sector

and generated 64.5 per cent of export earnings in addition to contributing 57.0 per cent to gross domestic product, GDP. With the ascendancy in the late 1970s of crude oil, the contribution of agricultural sector to GDP declined to 23.5 per cent and generated measly 5.1 per cent of export earnings (National Bureau of Statistics, 2017).

There exists huge but untapped potentials in the agricultural sector but the marginal contribution of this sector to GDP has declined significantly due to the Dutch Disease. About 42 percent of the arable land as at 2016 was cultivated with low productivity. Indeed, as of the same year, the sector contributed only 25 per cent to GDP and accounted for only 4.8 per cent of its total export earnings (National Bureau of Statistics, 2017).

The need to correct the issue of low capacity utilisation with attendant low agricultural productivity has become manifest. The government of Nigeria deployed several programmes at revamping the sector. They included establishment of River Basin Developing Authorities, the National Accelerated Food Production Project, the Agricultural Development Project, Operation Feed the nation the Agricultural Credit Guarantee Scheme Fund, the National Special Programme for Food Security, Root and Tuber Expansion Project and the National FADAMA I and FADAMA II programmes. The results have been mixed. Recent programmes included the Agricultural Transformation Agenda (ATA) programme established in year 2012. This

increased the sectoral financing granted by the commercial banks' financing to 5 per cent in 2014. This resulted in the growth of agricultural output by 11 per cent between 2012 and 2014 and consequential reduction of the food import bill by N466 billion during the period.

In a bid to accelerate the achievement and sustenance of food security, the Agricultural Promotion Policy (2016-2020) and the Economic Recovery and Growth Plan (ERGP) (2017-2020) were initiated. The results are being awaited (Iwuchukwu & Igbokwe, 2012).

The growth rate of the various macroeconomic factors (interest rate, rate of inflation, rate of exchange and the unemployment rate) together with the resultant Gross Domestic Product fluctuated over the years. Inflation trended upward throughout 2016. Consumer prices from 12.8% in March to 17.6 % in September 2016. In January of 2017 the core inflation rate rose by 17.85% over the correspondent period in 2016.

With respect to employment, it recorded an average of 10.63% from 2006 until 2016. The unemployment rate reached an all-time height of 19.70% 2009 Q4 and lowest value of 5.10% in 2010Q4 about 4.58 million were unemployed as at August 2016 and increased from 12.1% in Q1 to 14.2% in Q4 (Trading Economics, 2016). Portfolio and Foreign direct investments dropped by 9.49% and 23.75% respectively in 2016 (<https://tradingeconomics.com/nigeria>). The trend of selected economic variables from 1971 to 2016 is depicted in Figure 1.

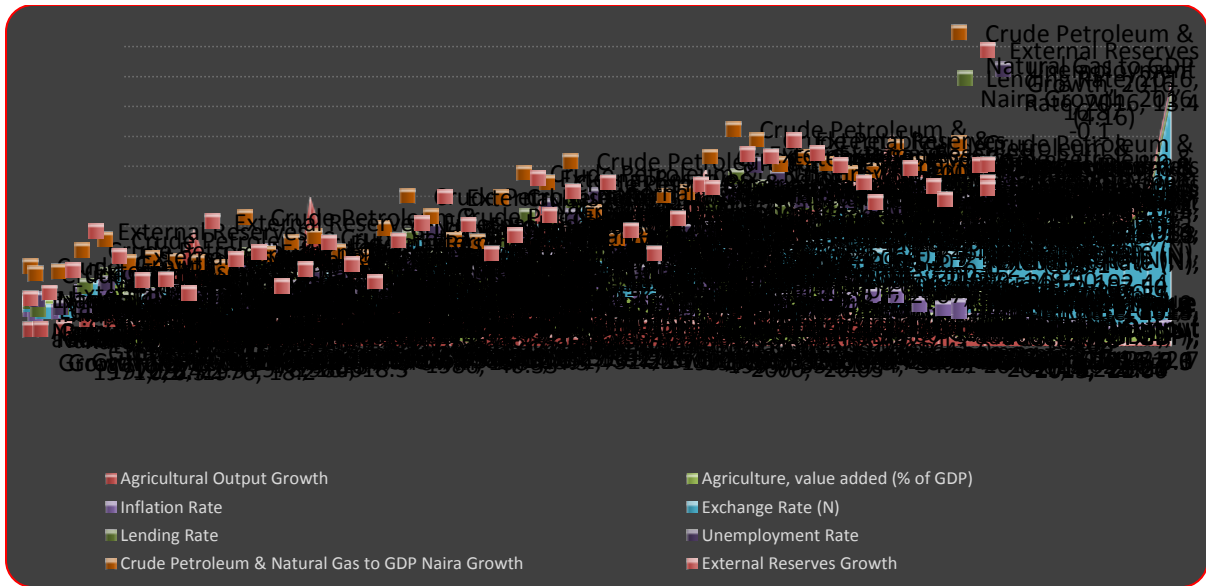


Figure 1: Trend of Selected Economic Variables 1971-2016

Source: Authors' Compilation

Policy formulation on these variables have also been varied and sometimes recursive. The findings in the literature have also been mixed. Most of the previous studies have concentrated on the agricultural output. This study however seeks to investigate the individual and joint impact of the macroeconomic variables on the agricultural value chain output using robust econometric techniques. The objective is to ferret out discernible implications for policy deployment both in the short and the long-run.

2. Theoretical and Empirical Literature

2.1 Theoretical Underpinning

The theoretical underpinnings of this research are the Cobb- Douglas (C-D) production function also lends its self to use as a guiding theory. The C-D function relates output (Q) to the inputs of capital and labour in a multiplicative function thus:

$$Q = f(K, L) = AK^a L^b \quad (1)$$

where Q is the output level being the total production (the monetary value of all goods produced in a year); A, a, and b are all positive constant; L = labour input (the total number of person-hours worked in a year); K = capital input (the monetary worth of all machinery,

equipment, and buildings); A = total factor productivity/neutral shift factor; a and b are the output elasticities of labour and capital, respectively. These values as opined by Koutsoyiannis (2002) are constants, determined by available technology. They are also commonly utilised as Cobb-Douglas production function in macroeconomic and microeconomic modelling. The output is measured by either values or quantities

There are supplementary theories including Okun's law, Phillip Curve. Given that the output of the agriculture is being investigated at the macro level, the Endogenous growth and the Augmented Solow growth theories becomes essential. The study links the two theories to the Keynesian IS-LM framework. The Keynesian theory which posits that inflation can be triggered by rise in demand and/or increase in cost (Jhingan, 2010). The rate of inflation is expected to negatively affect the output of the agricultural sector. This derives from the demand-pull inflation which is a situation where aggregate demand persistently exceeds aggregate supply when the economy is near or at full employment. The supply side factors however have been held to be responsible for causing inflation by the Keynesian theory of cost-push inflation. These theories are

illuminating but sometimes conflicting and so make for robust discernment.

2.2 Empirical Review

Macroeconomic variables are critical in the sustenance and development of agricultural production and export. Studies include Brownson, Vincent, Emmanuel and Etim, (2012), Olarinde and Hussainatu (2014), Odior (2014), Kadir and Tunggal (2015), Akpan and Inimfon (2015), Chughtai, Malik and Aftab (2015), Oluwatoyese, Applanaidu and Razak (2016), Kwon and Koo (2016). Different methodologies ranging from Cobb-Douglas, Multiple linear regression, Modified ordinary least square, Time dependent regression model, Bi-directional Granger-Causality approach, Vector error correction model, Nerlove model, were deployed in the linkage investigation and direction between macroeconomic variables and agricultural production.

Specifically, the One-step Dynamic Forecasting Analysis was adopted by Odior (2014) to examine the crucial role that real monetary aggregate, technological change and agriculture sector performance played on the agricultural component of the Nigerian GDP. Oluwatoyese, Applanaidu and Razak (2016) applied the production function framework to study Nigeria and provided evidence that the oil sector remained the engine of economic growth despite the various governmental policies and investment in the agricultural sectors.

Using the Greedy Equivalent Search (GES) algorithm, Kwon and Koo (2016) recognized the interdependence between macroeconomic variables and agricultural output. They also established that the sources of agricultural instability are due to the slow adjustment speed by the manufacturers (domestic shock) and the volatility in the exchange rate and interest rates (international shock). Chughtai, Malik and Aftab (2015) studied the Pakistani economy using the multiple linear regression models and concluded that the influence of macro-economic variables on the growth performance of any country is partly based on its agricultural output.

The investigation by Kadir and Tunggal (2015) on the impact of macro-economic variables on agricultural production in Malaysia deploys the Auto-regression distribution lag (ARDL) technique. They confirm the long run relationship between value-added agricultural productivity and macro-economic variables. The investigation by Adekunle and Ndukwe (2018) examined the possible impact of dynamic asymmetric variations in the real exchange rate on the output of Nigerian agricultural sector from 1981 to 2016. It utilises the Bounds cointegration test and report no impact of asymmetric changes of real exchange rate on the output of agriculture.

Given the plethora variables affecting the output of agriculture, this study specifically, seeks to establish the individual and joint impact of the macroeconomic variables (inflation rate, real external reserves, nominal exchange rate, real per capita GDP as a proxy of aggregate demand shock (Nm/person), commercial interest rate (proxy for lending rate to agricultural sector), employment in agriculture (% of total employment) and oil revenue as a ratio of GDP) on the agricultural output both in the short and the long run links between agricultural productivity and some key macroeconomic fundamentals.

3. Methodology

The study which covers forty six years from 1971 to 2016 is broad enough to capture major economic trade cycles. Data was sourced from several CBN Statistical Bulletins, National Bureau of Statistics, World Development Indicators, World Bank data. In the absence of complete data on the employment in the agricultural sector (data availability only from 1991), the study deployed the national agricultural employment rate data. The agriculture value added (% of GDP) was sourced from Knoema.com/atlas/Nigeria.

3.2 Model Specification

This study is grounded on the Keynesian IS-LM framework which connects both the endogenous growth theory and the Augmented Solow growth theory. The latter treats human capital

investment and innovation as key drivers of economic growth achievable through capital accumulation. The acquisition of capital however depends on the investment decisions which are in part affected by the level of the rate of interest rate. Indeed, the reduction in interest rate increases inflation rate with consequential impact on the investment level, price and the employment levels. These effects are manifested in the liquidity and price puzzles of the Keynesian IS-LM framework. In the formulation of the model, the Agricultural Value Add as a ratio of total GDP (AGD) serves as the dependent variable. The value addition rather than the raw output better reflects the various programmes of government aimed at enhancing the quality of the output of the sector.

One of the explanatory variables is the real interest rate (INT) which is the inflation-adjusted rate (by the GDP deflator). This lending rate is utilised to meet the short and medium-term financing needs of the private sector. Although the government had instituted many concessional lending rates including the Anchor borrowing scheme of the Central Bank of Nigeria, majority of the farmers in the country operate outside the formal banking sector. The applicable interest rate is therefore the same lending rate at which other sectors obtain facilities from the financial institutions. Other explanatory variable are Inflation rate (INF), Employment in agriculture as percentage of total employment (EMP).

Since the country is not in autarky, the intervening impact of an open economy including foreign competition, and currency pricing are brought to bear on the output of the agricultural sector. The nominal exchange rate (EXC) and real external reserves have been included in the model to reflect the impact of international trade. The ascendancy of the oil and gas sector as the major source of government external revenue earning led to the Dutch disease hence the inclusion of oil revenue as a ratio of GDP (OIL). The real per capita GDP (PCRGDP) was utilised as proxy for the aggregate demand shock in the economy. The Consumer price index (2003 = 100) was used to convert the nominal values to real values. The

estimated empirical model is stated in equation (1):

$$AGD_t = \delta_0 + \delta_1 EXR_t + \delta_2 EXC_t + \delta_3 LnINF_t + \delta_4 PCRGDP_t + \delta_5 LnINTR_t + \delta_6 LnUNEMP_t + \delta_7 LnOIL_t + U_t \quad (2)$$

Where:

AGD_t = Agricultural Value Add as a ratio of total GDP

INF_t = Inflation rate (%)

EXR_t = Real External Reserves

EXC_t = Nominal Exchange Rate

PCRGDP_t = Real per capita GDP as a proxy of aggregate demand shock (Nm/person)

INTR_t = Commercial Interest rate (proxy for lending rate to agricultural sector)

EMP_t = Employment in agriculture (% of total employment)

OIL_t = Oil revenue as a ratio of GDP

U_t = stochastic error term.

The model parameters are $\delta_0, \delta_1, \delta_2, \delta_3, \delta_4, \delta_5, \delta_6$ and δ_7 . U_t is the disturbance term.

3.3 Method of Data Analysis

A three-prong data analysis procedure was adopted. The pre-estimation phase consists of descriptive statistics and stationarity tests. The results obtained determined use of the Johansen co-integration technique since the variables were stationary at the first difference. Prior to the deployment of this technique, the optimal lag was selected. The Vector Error Correction Model (VECM) technique was thereafter applied to determine the existence or otherwise of short-run linkages among the variables.

Given the possibility of existence of multicollinearity because of the nature of time series, which may affect the validity of the estimated result, the study strived to reduce its effect by using the centred values of the variables. This was done by computing the mean of independent variable, and then replacing each value with the difference between it and the mean (Y- \bar{Y}).

The Johansen cointegration technique may not disclose the total interactions amongst the variables of a system. The Impulse Response Function is therefore deployed for this test. Also known as the forecast error, it is modeled in the

context of a Vector Autoregression to illustrate the reaction economy over time to exogenous impulses, endogenous macroeconomic variables and time variation (Hamilton, 1994 & Lütkepohl, 2008).

The post-estimation tests were conducted in order to determine the robustness or otherwise of the estimated model. These included the serial correlation and the heteroscedasticity tests. The E-views tool was deployed for estimation and to remove the collinear variable from the analysis. Results obtained were tested for compliance with economic theory and literature.

4. Findings and Discussions

Preliminary Analyses

The preliminary analyses are in two parts: Descriptive Statistics and Stationarity test

Descriptive Statistics

The characteristics of the data and the summary of the descriptive statistics of the variables are presented in Table 1.

Table 1: Descriptive Statistics

STATISTICS	AGD	INF	INTR	LNEXC	LNEXR	LNRPCGDP	OILGDP	EMP
Std. Dev.	7.95	16.23	6.29	2.34	1.41	0.25	0.57	4.63
Skewness	0.12	1.82	0.11	-0.16	0.043	0.19	1.93	0.88
Kurtosis	2.07	5.39	2.37	1.38	1.97	1.63	7.01	2.70
Jarque-Bera	1.76	36.11	0.86	5.23	2.05	3.88	59.22	6.05
Probability	0.41	0.00	0.65	0.07	0.36	0.14	0.00	0.05
Observations	46	46	46	46	46	46	46	46

Source: Author’s computation using E-views 8.0 (2018)

All the variables platykurtic in nature except inflation and the contribution of the Oil and Gas sector to GDP whose Kurtosis value were higher than 3. This is also manifested in the skewness values of the variables and the Jacque-Bera statistics. Consequently, the series are not normal except for the Agricultural Value Add as a ratio of total GDP and inflation rate. The confirmation of the stability of the variables is the next matter for discussion.

Stationarity Test Results

The results of the Augmented Dickey Fuller (ADF) test and the Phillip Perron test are presented in Table 2. The decision criteria for the unit root tests are that the null hypothesis is rejected if the test statistic is greater than the critical value.

Table 2: Unit Root Test Results: Augmented Dickey Fuller and Phillip Perron Test

Series	5% Critical Value	ADF Test at first difference (Prob.)	Phillip Perron Test At First Difference (Prob.)	Equation Specification	Order of integration
AGD	-2.93	-6.38 (0.00)	-6.82 (0.00)	Intercept	I(1)
INF	-2.93	-6.78 (0.00)	-9.74 (0.00)	Intercept	I(1)
INTR	-2.93	-7.44 (0.00)	-7.45 (0.00)	Intercept	I(1)
LNEXC	-2.93	-5.20 (0.00)	-5.19 (0.00)	Intercept	I(1)
LNEXR	-2.93	-5.80 (0.00)	-5.85 (0.00)	Intercept	I(1)
LNRPCGDP	-2.93	-5.50 (0.00)	-5.50 (0.00)	Intercept	I(1)
OILGDP	-2.93	-8.82 (0.00)	-36.21 (0.00)	Intercept	I(1)
EMP	-2.93	-6.85 (0.00)	-7.84 (0.00)	Intercept	I(1)

Source: Authors computation using E-Views 8.0 (2018)

The result shows that all the variables are stationary at first difference at 5% significance level. The Johansen cointegration test which is predicated on the unrestricted vector autoregressive (VAR) model as specified in error-correction form therefore lends, itself for determination of the long-run relationship (Johansen, 1988). This technique is set out in the next section after the determination of the optimal lag length.

Estimation Results

Optimal Lag Length Selection

Presented in Table 3 is the result of the selected optimal lag length.

Table 3: Optimal Lag Length Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-511.06	NA	7.50	24.72	25.05*	24.84*
1	-446.21	101.91	7.60	24.68	27.66	25.77
2	-385.79	71.94	12.64	24.85	30.47	26.91
3	-279.90	85.72*	4.94*	22.85*	31.13	25.89

Source: Authors computation using E-views 8.0(2018)

* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: -Hannan- Quinn information criterion

The result shows that SC and HQ suggest the lag of one period as against the three lag period of LR, FPE and AIC. The AIC and FPE criterion are superior to the other criteria in the way their ability to minimize under estimation while maximizing the chance of recovering the true lag length for less than 120 observations (Liew, 2004). Therefore, this study adopts the recommended three-lag period.

Cointegration Test Result

Two types of tests were considered - Eigenvalue and Trace statistic tests (equation 3 and 4). The result is presented in Table 4.

$$\lambda_{\text{trace}} = -T \sum_{i=r+1}^n \ln(1 - \lambda_i^2) \tag{3}$$

$$\lambda_{\text{max}} = -T \ln(1 - \lambda_{r+1}) \tag{4}$$

Where, λ_i = values of the eigenvalues

T = Number of the observations after the lag adjustment.

Table 4: Result of Johansen Co-integration test based on Trace Statistic and Max Eigenvalue

No. of CE(s)	Trace Statistic				Max. Eigen Value		
	Eigen value	Trace Statistic	Critical Value 0.05	Prob.	Max-Eigen Value	Critical Value 0.05	Prob.**
None *	0.89	295.51	159.53	0.00	94.62	52.36	0.00
At most 1 *	0.76	200.89	125.62	0.00	59.27	46.23	0.00
At most 2*	0.72	141.62	95.75	0.00	52.68	40.08	0.00
At most 3*	0.54	88.95	69.82	0.00	32.99	33.88	0.06
At most 4*	0.45	55.96	47.86	0.01	25.03	27.58	0.11

At most 5*	0.33	30.93	29.80	0.04	17.07	21.13	0.17
At most 6	0.19	13.85	15.50	0.09	8.68	14.27	0.31
At most 7*	0.17	5.18	3.84	0.02	5.18	3.84	0.02

Source: Authors computation using E-views 8.0 (2018)

Notes:

Trace test indicates 6 cointegrating eqn(s) at the 0.05 level

Max-eigenvalue test indicates 3 cointegration at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

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

The co-integration computation suggests that at most the 7 variables have a long-run connection with the dependent variable. Thus, there exists a long-run relationship between agricultural value add as a ratio of total GDP and each of inflation rate, real external reserves, nominal exchange rate, real per capital GDP, interest rate, employment rate, and oil revenue as a ratio of GDP.

The result of the deployed Vector Error Correction Model is, presented in Table 5.

Table 5: Result of Vector Error Correction Model Test

Variable	Co-Efficient (After Normalization)	Standard Error	T-Statistic (df38 = 2.042)	Significance of 0.05 level
AGD	1.00			
INF	0.12	0.12	1.01	No
INTR	-1.05	0.44	2.39	Yes
LNEXC	9.49	1.34	6.96	Yes
LNEXR	-19.91	1.87	-10.62	Yes
LNRPCGDP	-63.53	8.63	-7.36	Yes
OILGDP	-29.75	4.82	-6.17	Yes
EMP	3.98	0.42	9.53	Yes

Source: Authors Computation using E-Views 8.0(2018)

The estimated long run model is shown in equation 5

$$\begin{aligned}
 \text{AGD} = & 0.12\text{INF} - 1.05\text{INTR} + 9.49\text{LNEXC} - 19.91\text{LNEXR} \\
 & - 63.53\text{LNRPCGDP} - 29.75\text{OILGDP} + 3.98\text{EMP}
 \end{aligned}
 \tag{5}$$

The result in Table 5 as linearly stated in equation (4) signifies that a positive but insignificant relationship exists between value adding agricultural output as a ratio of total GDP and inflation rate at 5 percent level. However, the exchange, and unemployment rates are positively related and significant in forecasting the agricultural value add as a ratio of total GDP.

However, the interest rate, external reserves, real per capita GDP as a proxy of aggregate demand shock and Oil revenue as a ratio of GDP although significant, inversely affect value added agricultural output. A percentage increase interest rate in the reduction in AGD by about the same margin (1.05%). Similar percentage increases in external reserves, real per capita GDP as a proxy of aggregate demand shock and Oil revenue as a ratio of GDP results in fall in the agricultural value chain output by 20%, 64% and 30% respectively.

Having established the long run relationships and estimates, the next phase is to determine the short-run dynamics.

Vector Error Correction Model

The short-run relationship test is carried out after the application of the Vector Auto-Regressive Model (VAR) which is done to integrate the multi-variate time series. It is employed in order to determine the

existence or otherwise of a short-run relationship amongst the variables and the dynamics which helps to maintain the long-run equilibrium. The result is contained in Table 6.

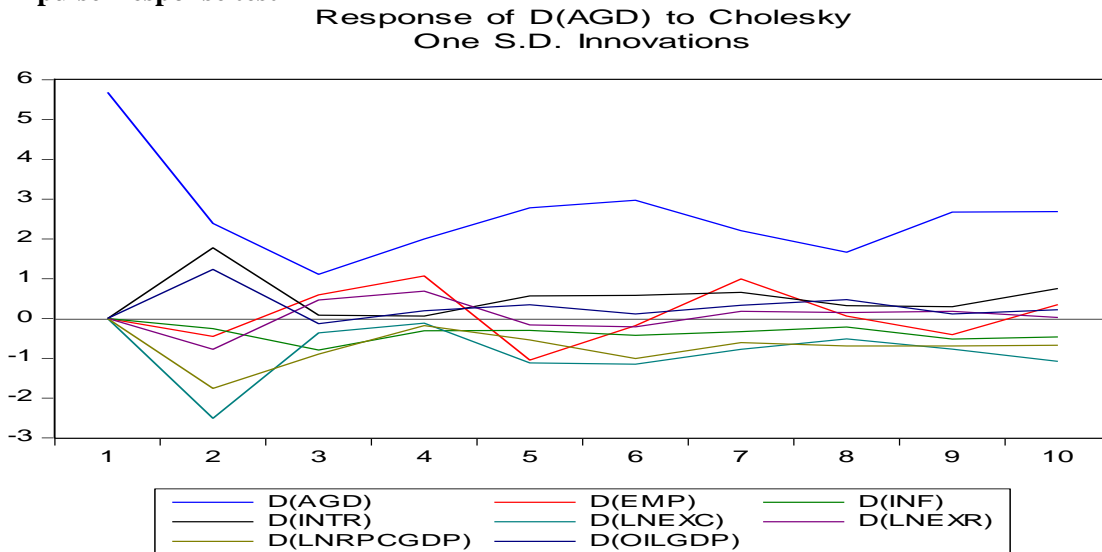
Table 6: Vector Error Correction Model (VECM) Result.

Error Correction:	D(INF)	D(INTR)	D(LNEXC)	D(LNEXR)	D(LNRPCGDP)	D(OILGDP)	D(EMP)
CointEq1	0.34	-0.02	0.00	-0.03	-0.00	-0.00	0.02
	(0.17)	(0.03)	(0.00)	(0.01)	(0.00)	(0.01)	(0.05)
T-stat (Cal)	[1.99]	[-0.70]	[0.04]	[-3.23]	[-3.40]	[-0.48]	[0.34]

Source: Authors computation using E-views 8.0 (2018)

Given that the tabulated T-stats value (2.042) is greater than the calculated values INF (1.99), INTR (0.70), LNEXC (0.04), OILGDP (0.48), EMP (0.34), the study accepts the null hypotheses as espoused by Lutkepohl (2006) that there is no short run relationship between these variables and the agricultural value chain output. This is however not applicable to external reserves and real per capita GDP as a proxy of aggregate demand shock in which short term connection subsist.

Impulse Response test



Source: Authors Computation using E-views 8.0(2018)

Figure 2: Response of Agricultural Value Add as a ratio of total GDP

The shock effect of changes in the macroeconomic variables to Agriculture value added output is varied. One standard deviation of interest rate led Agriculture value chain output to reach its peak in the second year and fall intensely the next year below the trend line at the fifth year and oscillated until the tenth year. The Agriculture value added output falls below the line all through the duration of the tenth year as caused by real per capital GDP. Employment in agriculture fell in the second year and peaked in the fourth. It thereafter oscillated till the tenth year.

Furthermore, the shocks induced by exchange rate and oil contribution to GDP cause agriculture value chain output to fall in the first year before fluctuating in the long run. Similar shock effect of inflation caused disturbances in the value of agriculture value added.

Post-Estimation Tests

The results of the post estimation techniques are presented in the following sections.

Breusch-Godfrey Serial Correlation Lm Test

The end-result of the test for possible serial relationship between the variables (Breusch-Godfrey Serial Correlation Lm Test) can be found in Table 7.

Table 7: Result of Breusch-Godfrey Serial Correlation LM Test

F-statistic	3.17	Prob. F(2,35)	0.05
Obs*R-squared	6.90	Prob. Chi-Square(2)	0.03

Source: Authors computation using E-views 8.0 (2018)

From the result obtained, the presence of serial correlation is manifest because the tabulated chi-square value (6.90) is greater than the calculated chi-square (0.03) at the 0.05 significance level.

Durbin Watson statistics Tests

This test was to find out the level of auto-correlation between the dependent and independent variables. The result is contained in Table 8.

Table 8: Durbin Watson Autocorrelation Test Results

DW value (d)	D-UPPER ($d_{U,\alpha}$)	D-LOWER ($d_{L,\alpha}$)	DECISION CRITERIA
2.17	1.84	0.82	No negative correlation

Source: Authors computation using E-views8.0 (2018)

The test results depict a no negative correlation in the variables since $4 - d_u \leq d \leq 4 - d_L$.

Breusch-Pagan-Heteroscedasticity Tests

The test for heteroscedasticity was done using Breusch Pagan Heteroscedasticity test to show the fitness of the model. This result is presented in Table 9.

Table 9: Result of Breusch-Pagan-Godfrey Heteroscedasticity Test

F-statistic	0.13	Prob. F (7,37)	0.99
Obs*R-squared	1.11	Prob. Chi-Square (7)	0.99
Scaled explained SS	2.69	Prob. Chi Square (7)	0.91

Source: Authors computation using E-views 8.0 (2018)

The result revealed an absence of heteroskedasticity since the Prob. Value (0.99) greater than the tabulated value (0.91) at 0.05 significance level.

5. Discussion of Findings

The theoretical underpinnings of this research are the Endogenous growth and the Augmented Solow growth theories. The study links the two theories to the Keynesian IS-LM framework. The results of the Impulse Response Function negates the predictions of the Augmented Solow growth and Endogenous growth theories on interest rate, as the current value of interest rate, its two to three past period values impacted

positively on the growth of the Nigerian economy. The period one value contributed negatively on agricultural output

The findings of this study are mixed. The study records the insignificance of inflation on agricultural output especially toward optimizing its value chain in the short run. This is because most of the raw agricultural products are demand-inelastic particularly so since the level of industrialisation and product conversion is low. This corroborates the findings of Oluwatoyese, Applanaidu, and Razak (2015) also on Nigeria. It is also consistent with the Keynesian theory of cost-push inflation arising from supply side resource rigidities (Jhingan,

2010). The inflation rate as the last quarter of 2016 stood at about 18.3% as a result of the target level of inflation by the Central bank of Nigeria. Indeed, this high level of inflation is coupled with high unemployment rate. This stagflation condition of simultaneous increase in both inflation and unemployment blunted the possible deleterious impact of inflation on the economic growth and by extension on the agricultural value chain output.

The implication of this being that short term palliative policies in terms of Commercial loan interest to agricultural sector, exchange, and agricultural employment rate have had scant or no effect on the agricultural sector. On the other hand, the impact of variation in the external reserves and aggregate demand is manifest in the short term. This study provide support for Brownson, Vincent, Emmanuel and Etim (2012) as against Eyo (2008) which reports that exchange rate, interest rate and inflation rate as negative, positive and negative relationship respectively in relations to agricultural output.

The relationship in the long run is also mixed. Apart from the rate of inflation, the other variables are significant in the long run. This upholds the findings of Hussainatu and Olarinde (2014). This also suggests that increasing level of interest rate is undesirable as it increases the cost of agricultural conversion and production. However recent government and Central Bank of Nigeria, Agricultural Transformation Support Agenda (ATA) programme established in year 2014 specifically increased the sectoral financing to be granted by the commercial banks. It directed Commercial banks to provide concessionary interest rate to farmers at 5 per cent. The main objective of this programme targeted at smallholder farmers and rural entrepreneurs engaged in the production, processing, storage and marketing of the selected commodity value chains. However, the negative coefficient on interest rate supports the existence of crowding out hypothesis with respect to the agricultural production and conversion in Nigeria.

The case of exchange rate the impact which is positive and significant in the long-run suggests

the beneficial attempts by the Central Bank of Nigeria to liberalise the foreign exchange market. This in addition to the diversification policy of the non-oil sector as contained in the both the 2018-20 Medium term expenditure Framework (MTEF) and the Fiscal Policy Paper (FSP) together with the Economic Recovery and Growth Plan (ERGP) 2017-2020 may help sustain this trend.

The impact of the price of crude oil in the agricultural value chain is negative, significant, and predictable. This is because although the export price of crude oil is exogenously determined OPEC. The sustained reliance of the country on the oil and gas sector for foreign exchange earning has had deleterious impact on the development of the agricultural sector.

The impact of external reserves on the agricultural value chain is negative. Indeed, the amount has fluctuated over the years. It reached a peak of 62.9 USD billion in September of 2008 and the lowest point of 63.2 USD Million in June of 1968. The finding is consistent with Augmented Solow growth theory which predicts that the expensive nature of a country's exportable caused by an inflow of foreign currency reduces the level of growth with implications for the external reserves. The low agricultural terms of trade with consequential implication on external reserves accounts for the negative relationship.

Consistent with the postulation of Okun's law (1962) on the relationship positive relationship between the employment and growth, the study finds employment in agriculture to propel the output of agricultural value adding output. This also supports the investigation by Oloni (2013) in Nigeria.

The real per capita GDP as a proxy of aggregate demand shock (Nm/person) is negatively and significantly related to agricultural value chain output. This is however inconsistent with the nexus established among finance, agriculture and economic growth in the experienced in developed countries which is critical for the structural transformation accompanying economic growth (Moody, 1981). The argument in the developed economies is that the agriculture sector of the economy transfers investible surpluses from resources generated to

the non-agricultural sector (Kuznets, 1961). The expectation is that the developing countries could also leverage (explicitly or implicitly) on surplus resources from agriculture to engender industrial development (Ohkawa and Rosovsky 1996; Johnston and Kilby, 1975). This is however not the case in the findings of this research given the rigidities and infrastructural limitations in the production and conversion of agricultural products.

6. Policy Implications, Recommendations and Conclusion

The management of the five key macroeconomic variables is an arduous task even in developed economy more so in the Nigerian economy which is largely mono-cultural. Given the preponderance of exogenous influence on the efficacy of both the fiscal and monetary policies, the government is enjoined to continue the diversification of the economic base of the country. Employment – generating policies and measures that create aggregate demand in addition to subsidized interest rate regime in line with the Anchor borrowers programme should be intensified.

Macroeconomic policy changes therefore, affect the agricultural economy through their impacts on interest rates and inflation. Changing interest rates influence variable production costs, long-term capital investments, cash flow, land values, and exchange rates, while inflation affects input prices, commodity prices, real interest rates and land prices. These economic and financial variables shape the structural characteristics of the firm including economies of size and learning curve, strategies deployed at risk mitigation and the operation and ownership of land resources.

Arising from the positive agriculture-employment nexus, there is also a requirement for up-skilling human capital. There is the need to provide and improve the capabilities of the entrepreneurs and managers in the management of agriculture and agro allied industry. As production agriculture becomes less commodity oriented, the agricultural value chain industry

need to provide more unique and differentiated products.

Given the growing integration of the world economy, future domestic and foreign policy changes may play an even greater role in determining the financial performance of the agricultural industry.

There is the need to further diversify the economy through restructuring of the agricultural value chain. Specifically, the use of technology to drive structural change in the methods of agricultural production including auto-steer and guidance, bio / nutritional technology, monitoring /measuring /communication technology and process control technology. Therefore, it is becoming increasingly important that farmers and agribusinesses understand the linkages between the macro economy and agriculture in making sound business decisions. Making business out of farming is the way forward

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Integrating Entrepreneurship Education into Higher Education Curriculum for Self-Reliance and National Development in Nigeria

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Abstract. Education is seen as an instrument for social/economic mobility. The development of a nation has close relationship with the quality of its education. Parents see it as investment in the recipient. The true situation in the contemporary period is that this objective is far from reality as college graduates are not only unemployed, they may at times rely on their aged parents for a living. It is based on this background that the paper attempts to examine the limitations of the current educational system in Nigeria and propose a reform not only in the structure but also in the psyche of the citizenry towards making education functional and the recipients self-reliant. Developed countries of the world, Israel for example used education to develop technology through introduction of Vocational and Technical Education (VTE) right from the secondary school. The University education in Nigeria which presently has a span of four years and above should be elongated by two years during which students are exposed to vocations out of which they go for practical experience in the one they prefer. This paper profess that vocational and entrepreneurial education be made compulsory and assessed like other courses. The students should be properly guided against solely searching for white collar jobs. It is therefore suggested that the government should encourage the graduates by provision of take off loans with minimal interest. The National Orientation Agency is expected to

sensitise stakeholders to embrace vocational education towards self and National development.

Keywords: Education, Self-reliance, Vocational, National Development

1. Introduction

Education enterprise in any country attract the interests of stakeholders like Government, parents, the students, the Society and Non-Governmental bodies to mention just a few. These stakeholders have great expectations from the recipients of the educational system. While the Government expect the recipients to be agents of socio-economic transformation, parents and students look forward to returns from investments on education by way of employment or accruable economic benefits while the society expects qualitative social dispositions from the beneficiaries of education.

It has been very obvious that none of the stakeholders have been fulfilled as regards achievement of their objectives. The incapability of the education sector to deliver as expected may not be unconnected with non-consideration of an answer to the great question. Education for what? To the extent that the educational system fail to adjust periodically to the needs of its society, to that extent will there be disillusion on

the part of the stakeholders as regards their expectations.

Dauda (2009) stated that “The crucial role education plays in the overall development of a nation cannot be overemphasized. It is not only seen as a key to poverty reduction and vehicle for promoting equity, fairness and social justice but also helps to supply the essential human capital which is a necessary condition for sustained economic growth. Thus, enhancing effective investment on education has been a tenet of growth and development strategies of most countries”.

Whereas the society is dynamic in developmental attainments and needs, educational sector particularly in developing countries like Nigeria is very slow in bringing to bear patterns of adjustments to compliment the changing outlook of the society. Edward de Bono referenced by Akinboye (2007) stated that “Education systems are a disgrace to civilization. Much has changed in the last century: transport, telecommunication computing, values etc. The one thing that hardly changes at all is education. Education has reached a stable equilibrium state from which it cannot be judged”.

This paper focused on the tertiary level of education specifically university education, employment challenges, experiences of developed countries and strategies for promoting self-reliant graduates by universities in Nigerian which will dovetail to appreciable development of the country.

The foremost wish of an average secondary school leaver (and parents) in Nigeria is securing admission into the university. The Polytechnic and Colleges of Education rank next. The Tertiary Institutions are expected to generate knowledge through research, disseminate same and ignite the development mechanism of the nation through innovative inputs. Promotion of positive character for career development is also sacrosanct. The products are expected not only to be well developed cognitively but to also be capable of analysing issues and develop logical thinking capacities all which are essential for

social development which is an ingredient of National Development.

Danbazau (2015) quoting Larry Gigerich MD Indiana-based development advising firm wrote... higher education and economic development are inextricably linked to one another, and for any country to be successfully in economic development, universities must be key partners throughout the process.

The University is a medium of development of expertise in various disciplines. This in turn promotes improved services through updated knowledge and positive innovation which contributed to economic growth.

Don (2002), expanded the focus of development beyond economic dimension to new concepts such as poverty reduction, social justice, environmental sustainability human rights and empowerment. These dimensions additional concepts can best be taken care of at higher education level.

University Education is most sought for and this has probably been the main factor for its rapid expansion currently there are 153 universities in Nigeria. Forty (40) of them belong to the Federal Government, Forty four (44) to state Government and sixty nine (69) to private bodies. Of the 83 Federal and State Universities, 21 are specialized in areas of Technology, Agriculture, Education, Military, Police and Petroleum. It is rather surprising that some of the specialized universities are functioning outside their scope. It is difficult to justify how a university of Agriculture will venture into courses like law, medicine and accounting to mention a few. Bogoro (2015) noted that this anomaly has led to deviation from founding objectives. Furthermore, it should be stated that the expansion is more of linear than comprehensive in scope and quality. This in turn lead to deficiency in quality output, increase in unemployment, escalation of youth delinquency like cultism, internet fraud, kidnapping etc.

The quality of graduates of the university system is not independent of the existing environment and mode of operation of the university system. When countries like Iceland, Israel, USA invest

7.9%, 7.3%, and 7.2% of their GDP on Education, Nigeria devote about 1% contrary to Dakar's recommendation that African countries should invest between 4% to 5% of GDP of the total economy in the field of education (Shevel, 2015). Infact Nigeria allocated 8% and 6% to education in the National Budget of 2016 and 2017 respectively.

The fault of deficiency in standard of higher education products is among others a result of deficiency of input to education and disposition of the students as well. Dambazau (2015) noted that many of the public universities have inadequate number and quality of classrooms, lecture halls laboratories, workshops, halls of residence and other physical structures. There had been tremendous increase in admission without corresponding expansion of facilities. To worsen the situation negative character disposition of some students such as cultism, examination malpractice, crime, use of drugs, absentism from lectures, violent demonstration among others have negative effect on the quality of the university products.

In the contemporary period, staff unions are more visible than the students' unions. Prolonged strikes based on issues like non-payment of salaries, underfunding, condition of service, lack of facilities to function with demand for autonomy, disagreement with management, have all affected negatively the output of the university system. The Punch newspaper of 9th January, 2017 in its editorial was of the opinion that the problems of Nigeria's university system are structural. Referring to the 2012 Needs Assessment report prepared by the government, there is a profound personnel deficiency. It revealed that 43% of lecturers had PhD while 57% have lowers qualifications. The distribution of qualified lecturers among existing universities revealed that just seven universities had up to 60% of lecturers with PhD.

Perhaps, the issues raised above led to the poor global rating of the Nigeria universities. The latest global biometrics ranking of universities placed University of Ibadan in a position of 1,366 in the world (19 in Africa) while Covenant University, Ota, established by Living Faith Ministries is next in 1,723 (25 in Africa) and

Obafemi Awolowo University, Ile-Ife followed in 2,038 (32 in Africa). University of Ibadan was the only Nigerian University to make the Times Higher Education list by ranking 978 globally (Punch, 2017).

2. Employment Challenges

There seems to be a deep fixation in orientation of University graduates and parents that the primary essence of education at that level is to prepare the recipients for white collar employment. However, there are many factors working against the realization of these expectations. The social economic development of Nigeria is hinged on revenue from oil, the price of which is beyond what Nigeria can solely determine. The recent drop in price has affected all aspects of the nation, ranging from non-payment of salaries, inadequate infrastructure, low input to education, closure of industries to mention just a few. It is apparently difficult for such a nation to guarantee new employment opportunities. Worse still, many employers do complain of low quality expertise on the part of the latter. Many of the graduates also read courses that are not relevant to the needs of the labour market.

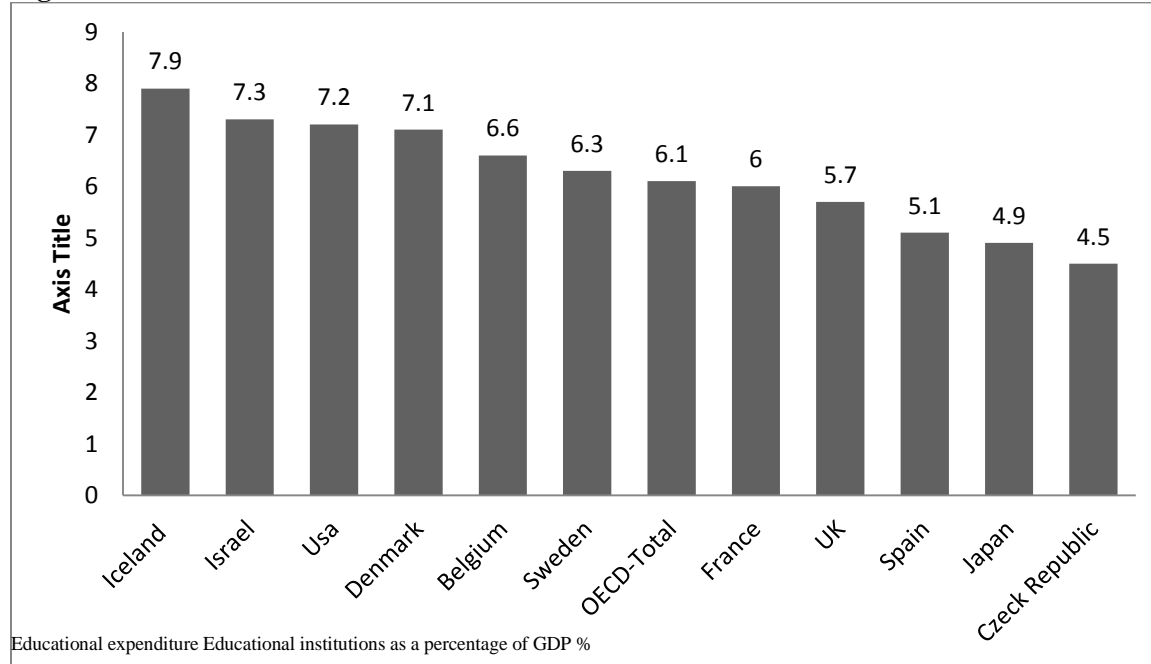
The government, though directed that the ratio of admission to universities should be 60:40 for science and other courses respectively, it has been unachievable because of many reasons. There are more non science students in the Universities. More of the applicants have flair for Arts and commercial subjects. The universities in Nigeria whether government or private are currently experiencing serious funding challenge. This has led to admission with less cognizance to the 60:40 science/non science specification. In fact record has shown that some specialized university such as in Agriculture and Technology offer non science courses like Business Administration, Accounting, Law in order to boost their enrolment and financial standing. The graduates are knowledgeable in their field of studies but lack competence in vocations. Once they fail to get employed they join the pool of the unemployment. The ego and misplaced notion that they are beyond going into vocation which are regarded as 'menial' also compound issues.

3. Developed Countries

Developed countries place high priority to education sector. The table below indicate the

percentage of GDP which twelve developed countries of the world invest in education. Nigeria hardly invests 1% of its GDP on education.

Figure 1:



Educational expenditure Educational institutions as a percentage of GDP %

Source: Joseph Shevel (2015). *Higher Education and Development: Lessons for Nigeria*. In *Higher Education and National Development*. University of Ibadan Postgraduate School Discourse Series. Edited by Adetinka, A.A, Oyeduntan, A & Aderemi, I.A.

A striking example of a country that got itself developed through education is Israel. This is a country considered to be semi desert and therefore no water. The effect of this on agriculture is obvious. It is the only country in the middle East without oil. Nigeria is better than Israel in the area of natural resources yet far apart in terms of national development. Shevel (2015) noted that the first Prime Minister of Israel, David Ben Gurion was so committed to education not only in area of investment but also compelled the children to go to school or the father be sent to jail. That was about 70 years ago.

It is important to indicate that Israel was aware of her needs and structured its education towards that direction. The focus was more on the Sciences. Today Israel is said to have the highest ratio of University graduates to the population in the world and 12% of them hold higher degrees. According to Shevel, Israel ranks third in the world in terms of Qualified Engineers index (after Finland and India) world competitive yearbook (2012). 24% of Israelis are in engineering related employment.

What Israel lacked in term of natural and mineral endowments have been taken care of by structured educational system. A country without water, oil, vegetation has today through scientific educational development, now have drip irrigation system and sold the same technology to more than 100 countries of the world. Israel also allocates 4.5% of its GDP to R & D which is the highest in the world ahead of Sweden, Finland and Japan which invest less than 2%. This has made the country a high-tech centre. The agricultural sector is characterized by improved seedlings and animal husbandry. For example Israeli cows provide 50 litres of milk per day (highest in the world) as against 10 litres per day of the Nigeria counterpart.

The implications of the educational system planned towards the needs and economic development of the country has not only produced wealth for the country, it has opened up a robust avenue for employment of its citizenry. The education system is not only scientifically biased it encourage putting into practice what is learnt.

All the ten top World’s Education systems according to Pearson (2016) Education ranking are developed countries.

Table 1: Top 10 World Educational System

Rank	Country
1	South Korea
2	Japan
3	Singapore
4	Hong Kong
5	Finland
6	UK
7	Canada
8	Netherlands
9	Ireland
10	Poland

Source: Pearson Education Ranking, 2016

This justifies the universal notion that the educational system of any Nation play very important role in its development.

A variable that plays important role in any educational system is the Teacher. Just as a nation depends on its educational system for development, the quality of the educational system is also dependent on the quality of its Teachers. The table below indicate five top ranked countries in teacher education by McKinsey (2010).

Table 2: World’s Top 5 Teacher Education Systems

Rank	Country
1	Finland
2	South Korea
3	Singapore
4	Hong Kong
5	Ontario, Canada

Source: McKinsey Ranking, 2010

The common factors among the five countries as indicated by McKinsey and restated by Okebukola (2016) are:

- Get the right people to become teachers
- Develop teachers to become effective instructors and
- Ensure that every child succeeds.

Teachers are subjected to rigorous training not only in content and pedagogy but also capacity to engage in research. The remuneration is good and comparable to other professions particularly in South Korea. Teachers are also exposed to on the job development. They enjoy considerable authority and professional autonomy. These promote job satisfaction and effective discharge of services.

Comparing the world top teacher education systems countries situation with Nigeria, the survey of quality of graduate teachers in Nigeria in relation to the minimum standards carried out by the National Universities Commission (NUC) 2004-2006 is very revealing. According to Okebukola (2016), the study

was to determine the strength and weakness of the minimum academic standards in education through an assessment of on-the-job performance of first degree holders in Education.

On the positive side, it was revealed that the average education graduate is adaptable and learn fast. They are capable as serving as change agent as well as broad based theoretically in their areas of specialisation. They are young and readily cope with stress and pressures.

The study also identified some deficiencies of education graduates in job performance. The results are indicated in Table 3.

Table 3: Overall Assessment of Skills

Skills	VERY GOOD	GOOD	AVERAGE	POOR	VERY POOR
Literary skills	0%	22.2 %	66.7 %	11.1 %	0%
Oral Communication	0%	44.4%	33.3%	22.2%	0%
Information Technology skills	0%	11.1%	55.6%	33.3%	0%
Entrepreneurial skills	0%	0%	88.9%	11.1%	0%
Analytical skills	0%	44.4%	44.4%	11.1%	0%
Problem solving and decision making	0%	33.3%	44.4 %	22.2%	0%
Subject-specific knowledge	3.1%	8.2%	15.7 %	52.9 %	10.1%
Technical skills	0%	11.1 %	11.1 %	77.8 %	0%
Critical thinking skills	0%	22.2 %	66.7 %	11.1 %	0%
Self directed learning	0%	11.1 %	88.9 %	0 %	0%
Inter-personal skills	0%	33.3 %	55.6%	11.1 %	0%
Numeracy	0%	44.4 %	55.6 %	0%	0%

Source: NUC (2006). *Labour market expectations of graduates from Nigerian universities. Abuja, NUC Nigeria*

As laudable as Israeli educational programme is, it may not be possible to adopt it for Nigeria educational system. It can however be adapted to suit the Nigeria situation with the aim of reducing unemployment, promoting economic and social development. Kofi Annan the Secretary General of United Nations (1999) expressed the notion of education that suites the continent of African nations at the learning the initiative to strengthen African Universities.

He stated:

Universities provide the logical extension to basic education for all... it holds the key to something we all want and need: African answer to African problems, the capacity to address the most pressing issues both at the theoretical and practical levels.

4. Recommendations

For a Nigerian University to be able to answer Nigeria’s problems, there is need to review its curricula. Presently the minimum duration for a degree programme for a secondary school

graduate is four years. Many of the courses offered and the content over years are more or less the same except for change in nomenclature. Furthermore, some of these courses are not relevant to the needs of the present situation. The resultant effect of this is the pronounced unemployment and frustration on the part of the University graduates.

It is on this note that the undergraduate programmes in the Universities should be reviewed to cater for individual, societal and National development. The following are hereby recommended:

The Federal Government should establish a Vocational and Entrepreneurial Commission which would be responsible for development of Curriculum for Vocational and Entrepreneurial Studies in Tertiary Institutions in the country. This should be done in conjunction with relevant bodies like the Nigeria Educational Research Development Council, the National Board for Technical Education, the National Universities Commission, National Commission for Colleges

of Education, Academic Staff Unions and Student Bodies.

The duration of the undergraduate courses should be extended from four years to six years. The additional two years should cater for entrepreneurial and vocational courses. The curriculum should be designed in such a way that the courses run throughout the six years, along with the basic degree programme. The undergraduate is first counseled as to the advantages of different vocations. They are introduced to as many vocations as possible such as plumbing, electronics, fashion design, catering, furniture etc. They are expected to pick any three vocation (e.g. plumbing, electronics and catering) in their second session. This is reduced to two at the third session (e.g. plumbing and catering) and one at the fourth session (e.g. plumbing). The student will continue with training in plumbing in the fifth and sixth sessions. During the last two sessions (i.e. 5th and 6th) he is expected to be attached to practitioners of the vocations for a period of three months each year. He would also undergo courses in basic accounting and as well as development of small scale businesses. At the end he will graduate in his basic degree e.g. B.Sc. Physics and a Diploma in Plumbing. The advantage of this is that if he is unable to get employed with the B.Sc. Physics, he can be self-employed in plumbing.

Like some developed countries of the world, the Nigeria government should make Teaching profession more attractive remuneration wise. Vocational and Entrepreneurial Teachers should be given special allowances in order to motivate them for better performances. Supervision strategies must be developed in order to give room for evaluation and needed adjustments from time to time.

For quality purpose, the Federal government should organize international training for would be instructors in the Universities.

The Tertiary Education Trust Fund put in place by the Federal Government of Nigeria which intervenes annually in funding and development of both physical and human resources in tertiary

institutions in the country should fund the establishment of qualitative vocational centres in the Tertiary Institutions. This will promote qualitative practical vocational training of the students.

There are some courses which can be repositioned to promote optimum utility. For example a graduate of Yoruba Language should be able to know enough of Ifa deity and be able to function as Ifa priest. The chemistry graduate should be able to function as a patent medicine personnel. Theology should be part of Religious Studies curriculum so that the graduate could establish and manage a church. The Creative Arts graduate should be knowledgeable in Textile/Decoration/Ceramic.

The Bank of Industry should be directed by the government to put in place take off loan grant scheme at a very low interest rate for the young graduates.

The Industrial Training Fund (ITF) was established by Decree 47 of 8th October, 1971. ITF initiated the Student Industrial Work Experience Scheme (SIWS) in 1973 to complement the theoretical knowledge acquired in higher institutions with practical experience.

The objectives of SIWES are:

- Provision of avenue for students in the Nigerian Universities to gain industrial skills and experience in their course of study.
- To prepare students for the work situation they are likely to meet after graduation.
- To expose students to work methods and techniques in handling equipment and machinery that may not be available in the Universities.
- To make the transition from the University to the world of work easier and this enhance students contacts for later job placement.
- To provide students with an opportunity to apply their theoretical knowledge in real work situation, thereby bringing the gap between University work and actual practice.

- To enlist and strengthen employers involvement in entire educational process of preparing University graduates for employment.

The objectives of SIWES are fully stated in order to make it clear that the framework to make a success of the proposal of this paper that vocational education be extended to all undergraduates is in existence. Hitherto a negligible percentage of undergraduates of technical/practically oriented courses are supervised by SIWES. What is needed now is reinforcement of the organization to enable it cope with the enlarged responsibility.

The Senate of Universities should make it mandatory that a student successfully undergo the vocational and entrepreneur training before graduation.

There ought to be a well packaged enlightenment programme for the citizenry if this proposal is to succeed. There is likely to be resistance particularly in the area of elongation of duration of undergraduate programme and the introduction of vocational training which many people before now consider to be undignifying. There are many young graduates who have been unemployed for more than five years. Some negative effects of this are increase in crime rate, drug addiction and involvement in kidnapping all which can be minimized if there is opportunity of self-employment.

It is a common in Nigeria to see many industries employing expatriate artisans like welders, plumbers, electricians etc. These people are not only paid in foreign currency rate, they transfer same to their home countries. The young graduates can feel this gap if they embrace vocational training. This will consequently enhance development of the nation. A few years back, the Niger militant became very destructive of petroleum installations which in turn led to economic loss for the nation. A major step taken to address the issue was the organization of international vocational training for the militants. Many of them have finished their training and are back to the country gainfully employed by petroleum companies.

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Part Four

Educational Management



An Evaluation of Endogenous Model on Wage among Farming Households in Nigeria

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Abstract. Some variables may be endogenous in wage equation. However, this endogenous hypothesis is not usually tested in most applied studies. Therefore, this study empirically applied two stage least squares (TSLS) to examine the return to education among farming households in Nigeria using the Nigerian household living standard data of the National Bureau of Statistics (NBS) in the World Bank sponsored project. Tests of endogeneity, instrument relevance and over-identifying restriction were carried out. The test of endogeneity confirms ordinary least squares (OLS) should not be relied on as it does not give a consistent and reliable estimates. The instruments included are exogenous and not correlated with the error term, but correlated with the independent variable confirming the relevance of the instruments. The empirical result affirms education is an endogenous determinant of wage rate. One unit increase in year of education will increase the wage rate by #439.67 (Four Hundred and Thirty Nine Naira, Sixty Seven Kobo), holding other variables constant. It suggests that test for endogeneity is necessary for an unbiased and consistent estimate to be obtained. Thus

ascertaining the endogenous nature of explanatory variable(s) is important to guiding the appropriate estimation method to be applied. This also affects the statistical inference and policy recommendation.

Keywords: Instrumental, Variable, Two stage least squares, Ordinary least squares, Education, Wage Rate

1. Introduction

Endogenous problem is a common econometric problem which occurs when at least one explanatory variable is correlated with the error term. The methods of instrumental variables (IV) and two stage least squares (TSLS) are used in social sciences to obtain consistent estimate due to difficulty in conducting controlled experiment, unlike in the pure sciences. An explanatory variable that is correlated with the disturbance error is called endogenous variable. This correlation is attributable to simultaneity problem, omission of relevant explanatory variable from a model, or when the covariates are subject to measurement error. If these occur, ordinary least squares

(OLS) may produce biased and inconsistent estimates (Bullock, Green and Ha, 2010). Thus the IV and TSLS are alternative methods often relied on by the social scientists.

An instrument or instrumental variable aids consistent estimates. The IV and TSLS methods are commonly used to provide consistent estimate (Angrist, Imbens, Guido and Rubin, 1996). However, biased estimate is possible when there is a weak correlation between an instrument and endogenous explanatory variable (Bound, Jaeger and Baker, 1995). An instrumental variable must meet two requirements. First, it must be correlated with the endogenous explanatory variables, conditional on the other covariates. Second, an instrument must not be correlated with the error term in the explanatory equation.

The objective of this study is to ascertain whether education is an endogenous determinant of wage rate among farming households in Nigeria. This is achieved by testing the endogenous hypothesis against the alternative that education is not an endogenous determinant of wage using two-stage least squares method. The theory of instrumental variable was first derived by Philip Wright in his 1928 book entitled "The Tariff on Animal and Vegetable Oils" as cited by Stock and Trebbi (2003). Following this, IV has been applied in different contexts. Heckman (1997) equally documents the usefulness of IV in developmental programme. Leigh and Schembri (2004) noted that some variables may be correlated with health and smoking while estimating the effect of smoking on general health. Wage can be estimated as a function of education, experience, age, gender, etc. yet variables like experience influence wage, and could plausibly influence years of formal schooling. A

regression of wage against education may therefore suffer from omitted variables bias. Therefore, this study extends the existing knowledge on the determinant of wage using farming household data in developing countries.

The credibility of the estimates of IV or TSLS hinges on the selection of suitable instruments. Instruments are easily created in the natural experiment but somewhat difficult to create in social sciences. For examples, Miguel, Satyanath, and Sergenti (2004) used weather shocks to identify the effect of changes in economic growth on civil conflict. On the other hands, Angrist and Krueger (2001) and Angrist and Krueger (1991) used quarter of birth as instrumental variable for ability while Angrist and Krueger (1992) noted that parenting is a key omitted variable in a wage equation. Wage equations may suffer from measurement error such as mis-reported years of education. IV has also been applied in different contexts. Fish demand function was estimated using IV by Angrist, Graddy and Imbens (2000). Discipline like criminology has also witnessed the application of IV (Angrist, 2006). Econometric issues like errors-in-component have equally been addressed using IV (Arellano & Bover, 1995). Instrumental variable is also extended to a case of binary outcome dependent variable (see for example, Clarke and Windmeijer, 2012). In summary, the method of IV has been used in different contexts with researchers developing and justifying the use of instruments.

The objective of this study is achieved by creating an instrumental variable from the available data and estimating TSLS. The next section reviews the assumptions and the limitations of OLS and presents the strengths of the alternative methods.

Information on the source of data used, diagnostic, hypotheses and estimated models are presented in section three. Section four summarizes the empirical results while section five concludes the study with policy recommendations.

2. Literature Review

OLS has been relied upon for many years as tool for examining the relationship between dependent variable and explanatory variable(s). It however yields an inconsistent estimate when an explanatory variable is endogenous. Some assumptions are central to the Ordinary Least Squares (OLS) and the violation of some of these assumptions may result in a biased and inconsistent estimate. The assumptions underlying OLS are summarized into six as follows.

- (i) Linearity assumption: The relationship between the dependent variable and the independent variable are assumed linear.
- (ii) The design matrix for the independent variable is of full column rank: Put differently, the independent variables are not linearly related or there is no exact linear relationship among the independent variables in any given linear model.
- (iii) The independent variables are assumed to be exogenous: This implies the independent variables should not carry useful information for the prediction of the error term. In other words, there should not be correlation between the independent variable and the disturbance error.
- (iv) Homoscedasticity and no autocorrelation: That is, the variance of the error term is assumed constant.

- (v) Stochastic or non-stochastic data: The explanatory variable is expected to be random or stochastic.
- (vi) Normal distribution of the disturbance error: the error term is assumed to be normally distributed with zero mean and constant variance.

The violation of assumption three, that is when the error term is not equal zero implies that the explanatory variables provide information about the expectations of the disturbances. If this occurs, the OLS estimate will be biased and inconsistent but the IV or TSLS can be used to obtain unbiased and consistent estimate. This is tested in this study. Note that IV and TSLS rely on the above assumptions but includes instrumental variables to correct for endogeneity problem.

2.1 The Models: OLS, IV and TSLS

Ordinary least squares (OLS) forms the basis for econometric analysis while the IV and TSLS extend its specification (Nelson and Startz, 1990). Assuming the data generation process of the equation (1):

$$y_i = \beta x_i + \varepsilon_i$$

(1)

Where i indexes observations, y_i is the observed dependent variable, x_i represents the set of independent variables, ε_i is an unobserved error term representing other factors that may explain the dependent variable other than the included explanatory variables in the model, and β is a scalar parameter to be estimated. If we assume the error terms are serially uncorrelated or normally distributed with a constant variance, given N observation and using the method of moment, the OLS estimator is expressed as equation (2).

$$\hat{\beta}_{OLS} = \beta + \frac{x^N \varepsilon}{x^N x} \quad (2)$$

Where x and ε denote column vectors of the length of the observation. The presence of $\frac{x^N \varepsilon}{x^N x}$ in equation 2 suggests the OLS estimate is biased and inconsistent. In estimating the causal effect of education (X) on wage (Y), an instrument (Z) is a variable which has a direct effect on the explanatory variable but affects the dependent variable indirectly through the endogenous explanatory variable. Assuming X is the N by K matrix and Z is a N by K matrix of instruments, the IV estimator of equation (3) provides a consistent estimator.

$$\hat{\beta}_{IV} = (Z^N X)^{-1} Z^N Y \quad (3)$$

Econometric models defining and relating OLS, IV and TSLS are presented next. One important attribute of IV is the identification of the model due to the inclusion of the instrument. A model is said to be exactly identified if the number of instruments equals the number of explanatory variables, over-identified if the number of instruments are more than the number of explanatory variables and under-identified if the number of instruments are less than the number of explanatory variables. Therefore, the order condition for identification is that there must be more instruments than included endogenous variables. Consistent estimate is not possible if the instruments are correlated with the error term and when there is ‘weak’ instrument.

2.2 The Two-Stage Least Squares (TSLS)

The two-stage least-squares (TSLS) is one of the computational methods used in addressing endogenous problem. Although it has some advantages over OLS, it does not free from limitations. These limitations are well documented in Angrist, Imbens and

Krueger (1999). It is worth noting that TSLS gives comparable result to IV especially with one endogenous explanatory variable (Wooldridge, 2002). The TSLS entails estimating an econometric model suspected with an endogenous covariate in two-stages. In the first stage, an endogenous covariate in the equation of interest is regressed on all the exogenous variables in the model, including both exogenous covariates in the equation of interest and the excluded instruments. The predicted value from the first stage regression is obtained and used in the second stage.

Stage 1: Regress each column of X on Z . That is, estimate equation (4) in the first stage and save the predicted value as in equation (3).

$$X = Z\gamma + \epsilon \quad (4)$$

The first stage estimator is given as: $\hat{\gamma} = (Z^N Z)^{-1} Z^N X$, and save the predicted values of X (equation 5):

$$\hat{X} = Z\hat{\gamma} = Z(Z^N Z)^{-1} Z^N X \quad (5)$$

In the second stage, the regression of interest is estimated as usual, except that in this stage each endogenous covariate is replaced with the predicted values from the first stage.

Stage 2: Regress Y on the predicted values from the first stage (equation 5) as shown in equation 6:

$$Y_{TSLS} = \hat{X}\beta + \epsilon \quad (6)$$

The TSLS estimator, $\hat{\beta}_{TSLS}$ (equation 6) is numerically identical to that of IV, $\hat{\beta}_{IV}$ (equation 3).

3. Methodology

3.1 Source of Data

This study utilizes the data collected by the National Bureau of Statistics (NBS) in

collaboration with the World Bank between August and October 2010 (post-planting) and February and April 2011 (post-harvest). This is the first General Household Survey-Panel (GHS-Panel) to be carried out by the NBS in Nigeria. Five thousands (5000) households were intended to be interviewed from a total number of 500 Enumeration Areas (EAs) in a two-stage stratified sampling. However, the final number of households interviewed was 4,986 out of which 4,946 questionnaires were fully completed. Therefore, data from 4,946 household heads were used in the analysis of this study.

The setting of this study is Nigeria. Nigeria has 774 Local Government Areas, 36 States and the Federal Capital Territory in Abuja with a projected population of over 220 million people by 2050 at a growth rate of 2.5 percent per annum. The country is located in West Africa on the Gulf of Guinea between Benin and Cameroon. She borders Cameroon in the East, Chad in the Northeast, Niger in the North and Republic of Benin in the West. She lies between latitudes $4^{\circ}1'$ and $13^{\circ}9'N$ and longitudes $2^{\circ}1'$ and $14^{\circ}30'E$. Nigeria covers 923,768 sq km land including water bodies. Nigeria's climatic condition is arid in the North, tropical in the central and equatorial in the South. The temperature ranges between $26 - 36^{\circ}C$ in the South and $33 - 40^{\circ}C$ in the North. Relative humidity is high during the raining season (between March and November) in the South and (between June and September) in the North while low humidity coincides with the dry season. The annual rainfall decreases Northward averaging 3,550mm in the Niger Delta to 2,200mm in the West and 500-750 mm in the North.

3.2 Specification Tests

These tests are often carried out in the application of IV. This relates to the strength

or relevance of the instrument, endogeneity and over-identification restriction or validity of the instrument. The test of instrument relevance involves examining the significant of the Wald statistic or F-statistic. The strength of the instruments can be directly assessed because both the endogenous covariates and the instruments are observable (Stock, Wright and Yogo, 2002). A common rule of thumb for models with one endogenous regressor is that the F-statistic from the model that tests the null hypothesis that the excluded instruments are irrelevant in the first-stage regression (equation 4) should be larger than 10.

The Wu-Hausman test, a test of restriction, which is F distributed is used to test for the endogeneity of the explanatory variable. This test is important because TSLS/IV may produce estimates with larger standard errors relative to OLS if an explanatory variable is not endogenous. It is therefore referred to as test of the consistency of OLS. Detailed specifications are presented below.

The third test which tests the validity of instrument, often called Sargan test is Chi-square distributed. This tests over-identification restriction. The most common test of these over-identifying restrictions is based on the observation that the residuals should be uncorrelated with the set of exogenous variables if the instruments are truly exogenous. The Sargan test statistic can be calculated as NR^2 (the number of observations multiplied by the coefficient of determination) from the OLS regression of the residuals onto the set of exogenous variables. This statistic will be asymptotically chi-squared with $m - k$ degrees of freedom (where m equals the number of instruments and k equals the number of exogenous variables) under the null that the error term is uncorrelated with the instruments. Put differently, the

Lagrange multiplier statistic (NR^2) will not exceed the critical point on a χ^2 (r) distribution, where r is the number of over-identifying restrictions ($r = m - k$). Rejection of the null hypothesis casts doubt on the suitability of the instruments.

3.3 Estimated Models for TSLS

The empirical equations estimated in this study are specified from equations (7) to (10) starting with a structural model of equation 7.

$$Y = \beta_0 + \beta_1 X + \beta_2 Z_1 + \beta_3 Z_2 + \mu_i \quad (7)$$

Where:

Y = Wage rate (Naira)

X = Educational level which is assumed endogenous (year)

Wage rate is calculated as amount earned per unit of hours work while education is the number of years of formal schooling. The Instrumental variables used include:

Z_1 = Years of experience in non-farm activities

Z_2 = Sector (Number of sectors the respondents involved in)

The First Stage Model

The reduced form equation in the first stage is specified as in equation (8):

$$X = \alpha_0 + \alpha_1 Z_1 + \alpha_2 Z_2 + \mu_i \quad (8)$$

This allows the computation of OLS residuals, μ_i . The residuals are not observable but its consistent estimate can be calculated as $\hat{\mu}$. These predicted residuals are included as an additional regressor in the OLS model of equation 9 to test for endogeneity problem That is, when δ is significantly difference from zero. This is called Wu-Hausman test.

$$Y = \beta_0 + \beta_1 X + \delta \hat{\mu} + \varepsilon \quad (9)$$

The Second Stage

Equation (10) is estimated in the second stage model if the null hypothesis of no

endogeneity is rejected. An explanatory variable is endogenous if $Cov(\mu_i \mu_j) \neq 0$.

$$Y = \beta_0 + \beta_1 \hat{X} \quad (10)$$

Where: \hat{X} = predicted value of the X (education) from the first stage (equation 10)
 Y = wage rate as defined in equation 7.

4. Results and Discussion

In this study, different specification tests were carried out as indicated in section three above. First, the endogeneity test is examined followed by the test of instrument strength as well as over-identifying restriction. Finally, TSLS is applied to estimate the return of education on the wage rate among farming households in Nigeria.

4.1 Tests for Instrument Relevance, Endogeneity and Over-identification

The results of the tests for the relevance of the instrument as well as over-identification restriction are presented in Table 1. As noted earlier, the common rule of thumb for model with one endogenous explanatory variable is that F-statistic against the null that the excluded instruments are irrelevant in the first stage regression should be greater than 10. The null hypothesis is that there is no correlation between the explanatory variable and the error term. The R^2 and adjusted R^2 are 0.038 and 0.037 respectively while the F-value is 97.22 and is significantly difference from zero at 1%. Following the common rule of thumb, the null hypothesis that the excluded instruments are irrelevant is rejected. Thus, education is an endogenous variable while the instruments (experience and sector) are not only relevance but are important determinants of education. In other words, there is a correlation between year of education and the instrumental variables (experience and sector). Therefore, the instruments are truly exogenous, not correlated with the error term.

Table 1: Test for Instrument Relevance (First Stage OLS Result)

Variable	Coefficient	S.E	t- value	Sig.
Constant	3.734***	0.093	40.15	0.000
Experience	2.288E ⁻⁵	0.000	1.43	0.15
Sector	0.194***	0.014	13.86	0.000
R ²	0.038			
Adj R ²	0.038			
F-value	97.22***			

N=4,946, Dependent variable= education. *** implies significant at 1 percent.

Source: Data Analysis, 2011

The result of the test of endogeneity (equation 9) is presented in Table 2. The OLS estimate gives F-value of 550.433 which is significant at 1%. The residual is significant at 1% level which informs the rejection of the null hypothesis ($\delta=0$) that residuals are not significantly difference from zero. Thus, the instruments are exogenous or the level of education is endogenous suggesting OLS should not be relied on.

One popular test for the validity of the instruments or over-identifying restriction is called Sargan test. This was calculated using the R² from the first stage of the regression model (equation 8).The null hypothesis states that the error term is uncorrelated with the instruments ($Cov(\mu, Z) = 0$).The t-statistic is computed as NR^2 where N is the number of observation. As earlier noted, this statistic is asymptotically chi-squared with $m - k$ degrees of freedom where m is the number of instruments and k is the number of explanatory variables.

Table 2: Test for Endogeneity (OLS Result)

Variable	Coefficient	SE	t-value	Sig
Constant	2087.49***	368.25	5.67	0.001
Education (X)	-520.03***	96.60	-5.38	0.000
*Residual ($\hat{\mu}$)	499.44***	96.62	5.17	0.000
R ²	0.314			
Adj R ²	0.313			
F-value	550.43***			

N = 4,946, Dependent variable= wage rate. *** implies significant at 1 percent.

Source: Data Analysis, 2011

Comparing the calculated value which is greater than the tabulated value, the null hypothesis of no over-identification is rejected implying there is an over-identification. Indeed, education is the only explanatory variable in the model while there are two instruments. This suggests OLS cannot yield a consistent estimate.

Table 3: The Second Stage Result

Variable	Coefficient	S.E	t-value	Sig
Constant	-1529.406***	47.507	-32.193	0.000
Predicted value of education	439.673***	9.994	43.995	0.000
R ²	0.281			
Adj R ²	0.281			
F-value	1935.57***			

N=4,946, Dependent variable = wage rate. *** implies significant at 1 percent.

Source: Data Analysis, 2011

The result of the second stage (equation 10) is presented in Table 3. The result shows R^2 and adjusted R^2 values of 0.281 and 0.281 respectively. The F-value is 1935.57 and is significant at 1%. The predicted value of education is positively and significantly (1%) related to wage rate. In addition, the experience and sector of non-farm activities have significant and positive effect on wage rate through direct effect on education.

4.2 Ignoring Endogeneity Problem (Relying on OLS Method)

The result of OLS is presented in Table 4. This test was carried to compare the OLS and TSLS under the assumption that OLS may give a consistent estimator. As shown by the results of test for endogeneity (Tables 1 and 2), the result presented in Table 4 confirms that OLS cannot yield a consistent estimate and should not be used for the estimation, but rather IV(or TSLS). The R^2 and Adjusted R^2 values are 0.000 while the F-value is 1.854 and not significantly different from zero.

Table 4: OLS Result when Endogeneity Problem is Ignored

Variable	Coefficient	SE	t-value	Sig
Constant	561.32***	12.62	44.46	0.000
Education	-3.122	2.29	-1.36	0.173
R^2	0.000			
Adj R^2	0.000			
F-value	1.85			

N= 4,946, Dependent variable= wage rate. *** implies significant at 1 percent.
 Source: Data Analysis, 2011

4.4 Two Stage Least Squares (TSLS) Method: Simultaneous Estimation

The result of the TSLS (running the explanatory variable and the instrumental variables simultaneously) is presented in Table 5. The result shows that R^2 and adjusted R^2 values are 0.0032 and 0.032 respectively. The F-value of 162.89 is significantly different from zero at 1%. This result is directly comparable to that obtained in the second stage of the OLS result (presented in Table 2). However, the high F-value of the second stage OLS result as well as higher figures of R^2 and adj R^2 attest to the fact that estimate from the two-stages (rather than the simultaneous ones) provides a consistent estimate. Notwithstanding, the estimated coefficients are the same. Indeed, the TSLS result presented in Table 5 further confirms that education is positively and significantly related to wage rate. Thus, the result of the TSLS is unbiased, reliable and consistent. It shows that 1 unit increase in year of education will increase the wage rate by ₦439.67, holding other variables constant. This result agrees with Angrist and Krueger (1991) who found that other variable like quarter of birth has indirect effect on earning in addition to the direct effect of education. It also extend the findings of Angrist and Krueger (2001) used quarter of birth as instrumental variable for ability in wage equation and Angrist and Krueger (1992) who reported parenting as a key omitted variable in a wage equation.

Table 5: TSLS Result (Simultaneous Estimation)

Variable	Coefficient	SE	t-value	Sig
Constant	-1529.67***	163.758	-9.339	0.000
Education	439.67***	34.449	12.76	0.000
R^2	0.032			
Adj R^2	0.032			
F-value	162.89***			

N= 4,946, Dependent variable = wage rate. *** implies significant at 1 percent.
 Source: Data Analysis, 2011

5. Conclusion and Policy Implications

Testing the potential endogenous problem of an independent variable is important in econometrics analysis and economic application because it gives information on the appropriate estimation method to be used as well as guiding policy decisions. For instance, relying on the classical least squares (OLS) when regressor is endogenous yields a biased and inconsistent estimator as shown in this study. However, IV or TSLS gives an unbiased and consistent estimate when the independent variable is endogenous. This suggests the use of instruments or instrumental variables. Three tests are important when instruments are employed in TSLS or IV estimation. These include test of the validity or strength of instruments, test of endogeneity as well as test of over-identifying restrictions. The null hypotheses are rejected for all the three tests in this study suggesting TSLS or IV is desirable. In other words, it was demonstrated in this study that OLS provides an inconsistent estimate. More importantly, the empirical results show that education is an important determinant of the wage received by farm households in Nigeria. In conclusion, economic researchers, social scientists and development experts are advised to ascertain the potential endogenous problem associated with the independent variables as a guide to identifying the appropriate econometric estimation method to apply. This has significant effects on the estimates of econometric models and subsequently policy suggestions (inference) emanating from such estimates. For example, the return to education is not zero as revealed by the OLS result. Finally, investment in education as a veritable tool for wage increase would have

multiplier effects on economic development in Nigeria.

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Supervision in Education for Effective Teaching in Nigeria Secondary Schools

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Abstract. This paper discussed effective supervision and teachers' attitude towards teaching in Nigerian Secondary schools. It identified effective instructional supervision as one of the mechanisms to be put in place towards achieving the goals in the school system. The paper also examined major challenges of instructional supervision in secondary schools and the way forward among other issues discussed. Relevant literature were reviewed, recommendations were made on how to ensure effective supervision of instruction secondary schools and a conclusion was drawn that successful supervisors should be knowledgeable about educational leadership, management and administration, and should be knowledgeable of real life issues which should be built on the supervisor's thorough understanding and in- depth knowledge of instructional theory and not on a check list of what should be in a lesson.

Keywords: Effective Supervision, Teachers' Attitude and Teaching

1. Introduction

Business and corporations supervise and evaluate employee performance for a variety of reasons including retention, promotion and accountability for completing job related tasks, Education is not different as it requires supervision of classroom instruction to evaluate teachers' effectiveness. Also, education aimed at bringing about the relatively change in behaviour of the learner as a result of learning (Aderson, 2008). The behavioural change can only occur in learners based on the amount of instruction

given to them at any level of education vis-a-vis how such instruction is been delivered during the teaching and learning process. However, well packaged instruction is at any level of education but without effective supervision during the delivery period, such instruction may fail to achieve its desired results (Eya and Leonard, 2012).

In Nigeria, education is on the concurrent list of government and this makes the issue of instructional supervision to vary from one state to another. However, some states have adequate arrangement in place to effectively supervise instruction at all level of education particularly in secondary school whereas some states failed to put necessary machineries in place to effectively supervise instruction in their secondary schools (NPE, 2004). For example, Ondo State Government in 2009 created Quality Assurance Education Agency as a parastatal under ministry of education to supervise instruction in both primary and secondary schools in the state. Secondary education occupies a unique position among all levels of .education. The broad goals of secondary education include: the preparation of the individual for useful living within the society and higher education. Thus, in order to achieve the stated goals, there is need for effective supervision of instruction in secondary schools. In general, instructional supervision is geared towards the improvement of the teaching and learning situation for the benefit of both the teacher and the learners. Evidence from previous studies conducted by scholars like Handal and Lauvas (2007), Gregory

(2005) and Bilesanmi (2006) showed that instructional supervision has always been regarded as an essential and integral part of school administration and basically geared towards the improvement of all factors in teaching and learning.

2. Concept of Instructional Supervision

Kiadese (2000) and Obilade in Ajayi (2001) opined that instructional supervision is a helping relationship whereby the supervisor guides and assists the teachers to meet the set targets. This definition described instructional supervision from the point of establishing the relationship with stakeholders in school system for the purpose of achieving the set objectives. Similarly, Olaniyan as cited by Olatoye (2006) described instructional supervision as a means to help, guide, stimulate and lead teachers through criticism, appraisal and practices in their education and procedures. This definition focuses much on teachers' attitudes over other vital elements that present themselves during the teaching and learning process.

Instructional supervision is a service activity that exists to help teachers do their job better (Glickman, Gordon and Ross-Gordon, 2001). Supervision is a cycle of activities between a supervisor and a teacher with the main aim of improving classroom performance (Patrick & Dawson, 2005). Also, Nwankwo in Ajani (2001) noted that instructional supervision is a set of activities which are carried out with the purpose of making the teaching and learning better for the learner. It has been observed that instructional supervision is an essential activity for the effective operation of a good school system. In addition, instructional supervision is a behaviour that is officially designed which directly affects teacher behaviour in such a way to facilitate student learning and achieve the goals of the school system. Through the effective supervision of instruction, supervisors can reinforce and enhance teaching practices that will contribute to improve students' learning (Anderson, 2004). The foregoing suggested that instructional supervision particularly in secondary schools is basically concerned with supporting and assisting teachers to improve instruction through

their changing behaviour.

3. Who is a Supervisor?

Supervisor, according to Hazi (2004) can be described as any certified individual assigned with the responsibility for the direction and guidance of the work of teaching staff members. This implies that supervisor has the role of assisting them teachers to do their work better through collaborative efforts. Ogunsaju in Ajayi and Ayodele (2006) defined supervisor as the mediator between the people and the programme. He designs various methods in performing his function of supervision in order to achieve educational objectives of the institutions under his control. Also, Olele in Kiadese (2000) defined supervisor as a person by virtue of his functions, carry out duties, which deal with managing both human and material resources within the school system and how they can be best utilized. In other words, supervisor is expected to assist in the learning environment to maximize the available resources to achieve the set goals. Eya and Leonard (2012) defined a supervisor as anyone assigned the function of helping others (teachers) to improve on their instructional competencies. In view of the functions of supervisors in instructional supervision, mere is needed to discuss the qualities of a good supervisor in a school system.

3.1 Qualities of a good Supervisor in a School System

Ogunsaju quoted by Olorunfunmi (2008) identified some qualities of a good supervisor to include someone who should be honest, objective, fair and firm; he has to be open and democratic; he should be approachable; he has to be creative, imaginative and innovative; he has to be a good listener and observer; he should be friendly, courteous and consistent in his interactions with teachers and others ; and finally that he should be an educational facilitator.

Similarly, Eferakeya and Ofo in Olorunfemi (2008) highlighted the some other notable qualities of an instructional supervisor to include someone who must have enough energy and good health; he must have good leadership style; he must possess ability to get along with people; he

must possess sound knowledge and technical in his own area of specialization; he must develop positive attitude towards management; and he should also have good communication skills.

3.2 Roles of Supervisors

In general, the major function of the supervisor according to Bilesanmi (2006) and Gregory (2010) is to assist others to become efficient and effective in the performance of the assigned duties. Apart from this general function, supervisors according to him also perform additional critical roles in the school system especially at the secondary school level and these he identified to include:

(i) Instructional Leaders: Instructional leadership is one of the most important roles of supervisors.

Supervisors lead other teachers in instruction to make them as effective as possible, they also lead teachers in developing and implementing effective plans of instruction. Supervisors have to adapt to meet the needs of the people and the particular environment rather than practice a normative kind of leadership. Instructional leaders improve the quality of instruction by furthering professional growth for all teachers. Supervisors should be flexible enough to deal with any situation and should maintain a good relationship with their staff.

(ii) Assessing Students' Progress: A supervisor assesses students' progress toward the established standards by the regulatory agencies, and also facilitates the planning of various types of instruction, Supervisors ensure that teachers are utilizing information from a variety of valid and appropriate sources before they begin the planning of lessons or teaching. Supervisors determine if teachers are using the numerous evaluation processes available to assist in planning meaningful instruction. The Supervisors ensure that teachers are preparing and maintaining adequate and accurate records of students' progress. This will include the regular and systematic recording of meaningful data regarding students' progress on specific concept and skills related to the standards for each subject for the grade level they are teaching.

In addition, Aderonmu and Ehhiemetalor in Kiadese (2000) identified the following roles of

supervisor in the school system.

(iii) Planning: The supervisor needs to apply the planning principles to the supervision from the beginning in order to ensure the aims of supervision are attained. The planning', principles involve the articulation of objectives, selecting of the best strategies, mapping out of policies, programmes and procedures that would best help in achieving the stated objectives.

(iv) Staffing: supervisors are expected to identify through the process of supervision, staff vacancies in terms of grades and disciplines in accordance with the organization structure of the school.

(v) Coordination: The supervisor is expected by this function to co-ordinate the efforts of all participants and ensure that by so doing, decision making becomes a collective responsibility.

(vi) Observation: Supervisors are expected to observe management, staff and students at work during a typical supervision session. Thus, in a bid to help improve observed habits and standards, the supervisor should through consultation, offer advice to the participants in the school system.

(vii) Curriculum development: In view of the-level of involvement of supervisors in the school activities, they can however through observations' make useful suggestions which can help the process of curriculum development in the country.

Similarly, Kathleen (2006) summarized the roles of supervisors to include the following:

- Monitoring or providing for mentoring of beginning teachers to facilitate a supportive induction into the profession.
- Bringing individual teachers up to minimum standards of effective teaching in terms quality assurance and maintenance functions of supervision.
- Improving individual teachers' competencies, no matter how proficient they are deemed to be.
- Working with groups of teachers in a collaborative effort to improve students' learning.
- Working with groups of teachers to adapt the local curriculum to the needs and ability of diverse groups of

students while at the same time bringing the local curriculum in line with state and national standards.

- Relating teachers' efforts to improve their teaching to the larger goals of school-wide improvement in the service of quality learning, for all students.

From the forgoing, it is evident that the role of supervisors in a school system especially in the secondary schools in Nigeria is very crucial. Thus, for effective supervision of instruction, supervisors should be able to discharge their functions as expected if the goals of education are to be attained.

4. Purpose of Instructional Supervision in Nigerian Schools

It must be noted that the essence of instructional supervision in schools is to ensure things are done the way it should be in order to achieve the stated objectives. Hence, the notable purposes of supervision of instruction according to Patrick and Dawson (2005) includes direction of influence on the behaviour of teachers and the teaching process employed, promotion of students' learning, ensuring that each individual teacher within the school system has been performing the duties to which- he was scheduled as well as cooperative development of favourable climate for effective teaching and learning among others. Others purposes of supervision of instruction according to Ogunsaju in Olatoye (2006) and Chike-Okoli (2006) comprise of knowing the performance of the teachers recruited to teach in the school system, determining whether a teacher should be transferred, promoted, retrained or dismissed, provision of professional information to teachers, improving the incompetent teachers, discovering special abilities or qualities possessed by teachers in the schools, guiding teachers to discover sources of instructional materials, providing a guide to staff development and aiding them to know the effectiveness of classroom management by the teachers.

5. Effect of lack of Proper and Effective Supervision in Secondary Schools

It is a common phenomenon in African especially in Nigeria that people do whatever pleases them, both in the public and the private

sectors. Therefore, if there is no proper and effective supervision in the way teachers carry out their duties and responsibilities, the following according to Gickman (2009) tend to happen in the way teachers discharge their duties as discussed under various headings are the effects that will be on the students they teaching:

5.1 Teachers' Level of Commitment and Pupils' Academic Performance

This as shown in the recent finding of Anderson (2008) that attitude to work in terms of teachers' level of commitment has a significant relationship with pupils' academic performance in key subjects like English Language, Mathematics and Science subjects (Physics and Chemistry). This is in agreement with that of Kathleen (2006) who maintained that effective teaching cannot be guaranteed without commitments to work and commitment in terms to pupils' characteristics and teachers' level of commitment in terms of knowledge of the learners' characteristics should cover the areas of talent, intelligence, skills, background and their hereditary assets as well as commitment to quality teaching. It is therefore important for teachers' to note that commitment takes into consideration the mastery of the subject matter.

5.2 Teachers' Punctuality to School and Pupils' Academic Performance

The findings of this study by Glickman, Gordon and Ross-Gordon (2001) revealed that there is a significant relationship between attitude to work in terms of teachers' punctuality to school and pupils' academic performance in English Language. This finding also supports the findings of Gregory (2010) who found out and reported that teachers who are frequently late to school deprive the learners the opportunity of experiencing full explanation of concept which can affect their academic performance. Whereas, teachers who were always punctual to school instill such attitude in pupils and this significantly influence their academic performance positively. They concluded that lack of teacher punctuality to school can lead to pupils' poor performance as well as increase dropout rate of pupils from school; thus reducing parent's zeal to spend more money

sending their children to school. And in another related findings, Hazi (2004) found a significant influence of teachers' punctuality to school on pupils' academic outcome. The researcher concluded that being punctual to school as a teacher is part of showing courtesy to the pupils which is a way of expressing love and interest towards the pupils; and also a way of helping the pupil improve their academic performance. The implication of the present findings is that, the higher the attitude to work in terms of teachers' punctuality to school, the higher the pupils will benefit from teaching which will be evident in their performance in English Language, Mathematics and Primary Science. Conversely, the lower the teachers' punctuality to school, the lower pupils' academic performance in English Language, Mathematics and Primary Science.

5.3 Teacher -Pupil Interaction and Pupils' Academic Performance

The finding of Aqua in Gregory (2010) in a study conducted on the influence of teacher-student relationship on academic performance of the gifted student reveals that there is a significant influence of teacher- student relation on academic performance of the students.

6. Challenges Militating Against Effective Instructional Supervision in the Secondary Schools

Onoyase in Bilesanmi (2006) stated that supervision is an organisational behaviour system, which has the function of interaction with teaching behaviour system for the purpose of improving learning situation for students. However, instructional supervision has to be carried out within the school system and every system has various forces that present themselves as challenges that may affect effective functioning of the entire system. However, there are challenges facing instructional supervision in Nigerian schools particularly, the secondary school education. These challenges according to Onoyase in Bilesanmi present themselves in form of problems and they are discussed hereunder:

(i) Poor Incentive: Supervisors at times are dissatisfied with their job because of motivating

factors that are minimal. In Nigeria context, several people who are not directly involved in a particular-process or a given assignment may receive more compensation and reward more than those who actually carried out the assignment due to the high level of corruption in the country. This singular act may at times affect the way in which instructional supervision is being done in the secondary schools.

(ii) Limited Educational Resources: The issue of scarce resources is an economic one that attempts to rationalise spending in order to avoid waste. Effective instructional supervision however would be difficult to carry out if the funds that are supposed to be available are not there. School administrators as well as instructional supervisors would require certain resources to put things in order before supervision; non-availability of such resources would affect the supervision exercise.

(iii) Administrative Issue: Administrative inadequacies emerge when planning fails to specify the scope of responsibilities and results that instructional supervision is expected to bring about in a school. Thus, detail planned visits should be made known to the supervisee and the agreement reached between the supervised and supervisee on the objectives and procedures. In other words, both instructional supervisor and school administrators must come to term if the instructional supervision is to achieve its objectives.

(iv) Lack of Pre-Professional Training for Supervisors: Technical issue: One of the major challenges facing instructional supervision in Nigerian secondary schools is the issue of competence and technical knowledge of the instructional supervisors. Most often than not, in Nigeria, political affiliation at times dictate who get a particular assignment without recourse to the technical competence of the person. Evidence from previous studies Ajayi and Ayodele (2006) and Eya and Leonard (2012) revealed that some instructional supervisors lack knowledge and competence to carry out the exercise as they were appointed based on their level of involvement: in the government of the day and not as result of their skills they possessed.

(v) Corruption among Major Stakeholders in the School System: Both the school

administrators as well as instructional supervisors are found guilty in this regard. Unholy collaboration between the supervisor and the school administrators on account of funds meant to procure necessary materials for the school system would not augur well for instructional supervision in secondary schools. When funds are misappropriated in schools, instructional supervisors are in the best position to identify this problem but if they are not duly rewarded such problem will continue unabated which would affect the standards that should be achieved in the school system.

(vi) Political Instability: The frequent change of government usually brings about incessant-change of government policies regarding instructional supervision. In Nigeria, it is a common thing that the successive administration always discontinues the policy and programmes put in place by the previous administration. This singular act usually affects the effective supervision of instruction in schools. In other words, inconsistent policies on how instruction-in schools should be supervised and the categories of people to be involved would adversely affect and pose a big challenge to instructional supervision especially in secondary schools in Nigeria.

(vii) Integration of Information and Communication Technology (ICT) in Education: This involves the use of modern technological equipment and computer devices for the teaching and learning process. Anderson (2008) stated that technologies and internet offer students an alternative to traditional education in a classroom in a physical school building. This innovation has broken the traditional way of teaching and learning at all levels of education. However, with the current innovation in teaching, it is difficult for instructional supervisor, to have access to how teaching is being conducted in the school system. The process of instructional supervision has generally occurred in a face-to-face setting with teachers and administrators physically present in the same location (Glickmeier, et al, 2001). This traditional model of instructional is being threatened by online learning opportunities that are changing the delivery of instruction to a virtual environment (Anderson, 2004). Thus, since the use of ICT permits individual student-to learn at their own convenient time (asynchronous learning), therefore the current innovation in education

pose a challenge to instructional supervision in the school system.

7. The Way Forward

The primary objective of the supervision process in secondary schools is to offer teacher direct assistance to improve their performance toward the goal of increasing student learning. To achieve the goals of instructional supervision in secondary schools, efforts must be geared toward overcoming most of the challenges facing instructional supervision (NPE, 2004). In addition, if education would be one of the tools to realise the goals of transformation agenda of the present government in Nigeria as recorded by Ogundiran (2016), there is need to improve upon the quality of learning in secondary schools through effective supervision of instruction in the following ways:

Adequate Funding: Government at all level must strive to .make adequate fund available to education sector in order to procure the necessary-materials that will aid effective supervision of instruction in secondary schools. This can be done by way of increasing the grant usually-allocated to school on termly basis. Government can also seek public private partnership in funding education since it has become clear that government alone can no longer provide necessary funds that are required in the education sector. The United Nations resolution was that 26% of nation's budget should go to education sector. Implementing this resolution would equally boost the fund available to the education sector which will afford all agencies and parastatals in education to carry out their educational activities effectively.

Capacity Building among Major Stakeholders: In order to ensure adequate and effective supervision of instruction in secondary schools in Nigeria, government need to embark on capacity building of supervisors, administrators as well as teachers to enable them perform their duties effectively. This can be done through regular training, induction programmes, seminars and workshops to equip them with necessary skills and keep them abreast of the current trends in the school system. They can equally be given opportunities to participate in international conferences in other to-acquit themselves with what operates in the school system outside the shores of Nigeria.

Selection of Qualified Supervisors: One of the ways of ensuring effective supervision of instruction is to select or appoint personnel who have technical' skills about

education especially at the secondary schools level. Government should not sacrifice the merit and competence on the altar of political affiliation. Qualified personnel in the field of education with sufficient knowledge, skills and experience in secondary school education should be appointed as supervisors in order to exhibit all sense professionalism in carrying out their functions in the school system.

8. Summary

Supervision requires the leader to oversee, assess, evaluate and direct teachers as well as school administrators in order to ensure that educational institution meet its goals. Also, successful supervision promotes a vision to implement change in the school system that facilitates improvement. The supervision of instruction is by design, a developmental process with the main purpose of improving the instructional programme generally, and teaching specifically. Only when this process is carefully planned and executed can success be assured.

9. Conclusion

The supervisory function is best utilized as a continuous process rather than one that responds only to personnel problems. Thus, administrators with supervisory responsibility have the opportunity to have tremendous influence on the school activities and help ensure the benefits of a strong programme of instruction for students and they should be knowledgeable of real life issues as well as educational leadership, management and administration. They should know the culture of the schools and communities in order to ensure effective supervision of instruction.

10. Recommendations

In view of the importance of instructional supervision in Lagos state secondary schools, the following recommendations were made in order to make it achieve its desired results in the Lagos state school system:

- (a) Government should organize training programmes for teachers as well as school administrators with greater emphasis on the need for supervision of instruction in the school system.
- (b) Necessary equipment and materials should be given to the instructional supervisors to enable them perform their functions effectively.
- (c) Instruction supervisors should be engaged in regular training to update their knowledge and skills and provide them with useful information that will keep them abreast of the current trends in the educational system.
- (d) Necessary facilities and instructional materials should be supplied to all secondary schools in order to generate effective functional school system that would facilitate effective supervision exercise.
- (e) Parents as well as community should be properly involved in the supervision of instruction in the school system. This would form a synergy in the system to achieve greater effectiveness.
- (f) With regards to teachers punctuality to school, Vehicle allowance should be given to teacher to enable them afford cars for themselves. Also, accommodation for teachers should be provided in the school compound. This would enable the teachers to be in school on time to begin instruction. Teachers should continue to have good inter - personal relationship with their pupils such as finding out about their academic progress. Such concern for pupils will capture their interest for study and as such enhance their performance.

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Causes and Consequences of Over-schooling among Teachers in Educational Institutions in Kebbi State, Nigeria: Policy Considerations for Educational Managers

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Abstract. This study investigated the causes and consequences of over-schooling among teachers in educational institutions in Kebbi State. This study adopted the descriptive survey design, conducted ex-post facto. The study purposely selected 84 educational institutions using stratified random sampling to cut across public and private primary, secondary and tertiary institutions in Kebbi State. A sample of 84 Educational Managers and 168 Teachers were selected using deliberate and simple random sampling techniques respectively. A self-designed and validated instrument with reliability index of 0.84 using Crombach Alpha was used to generate data for the study. A four point Likert Scale with criterion Mean of 2.50 was used across the items for decision. Three null hypotheses were tested using independent t-test at 0.05 alpha level. The study found that over schooling among teachers in educational institutions in Kebbi State of Nigeria was caused by phasing out of Grade II Teachers Certificate, excessive turnout of graduate teachers and proliferation by private schools with poor remuneration. It was also found that the consequences of over schooling among teachers include low morale and low productivity. It was recommended that Grade II Teachers Certificate be reinstated to adjust the disequilibrium and a satisfactory Teachers Salary Structure (TSS) be implemented in both public and private schools.

Keywords: Over-schooling, Educational Institutions, Teachers, Policy, Productivity.

1. Introduction

There is no denying the fact that teaching is the mother of all professions as no profession could come into existence without some kind of teaching and learning either formally or informally. The growth of nations globally depends on the quality of manpower produced by the teachers at various levels of education. That is why Fafunwa (2004) posits that no nation shall rise above the quality of its teachers. This assertion was re-affirmed and re-echoed by UNESCO (2006) which categorically stated that no state of art infrastructure or adequate funding would ensure success in the school system when teachers fail at delivery level.

For teachers to discharge their professional duties effectively they must be happy, satisfied and proud of their job at whatever level of education they are teaching. In this regard, Owoye (2007) maintained that teachers are the primary actors in the business of education and must be treated well if improved performance and high productivity are to be attained all levels of education. But this is not the case in Nigeria as evidenced by the numerous industrial strikes that have been carried out by universities and other tertiary institution teachers to register their grievances on the way and manner the government has been treating them. The case of teacher neglect appears to be worse at primary and secondary school levels which are supposed to provide quality basic education to the Nigerian child.

2. Statement of Problem

One of the nagging problems that have cropped into the teaching profession and have persistently been causing dissatisfaction among teachers is the issues of over-schooling. This is a situation where teachers feel that the school where they are teaching is below the institution where they ought to be teaching by virtue of their educational qualifications and professional attainment. The situation of over-schooling in Kebbi State was brought to fore in a study conducted by Manga (2016) when he used stratified and simple random sampling techniques to get the opinion of 150 teachers teaching at primary, secondary, college of education, level on their preference as to which school level they prefer to teach. Using a structured questionnaire, it was found that 95% of primary school teachers with Nigeria Certificate in Education (NCE) preferred to teach in secondary schools; 90% of teachers with Bachelor of Education (B.Ed.) degree teaching in secondary schools prefer to teach at College of Education; while 83% of lecturers with M.Ed and Ph.D degrees teaching in Colleges of Education preferred to teach in University. On the average 87% of the teachers believe that they were over-qualified or over-schooled at the school where they are teaching and would prefer to migrate to the next higher educational institution than the one they are currently engaged in order to be satisfied. There is no doubt that job dissatisfaction could lower the morale of teachers with serious implications in their job performance. This paper therefore attempts to investigate the causes and consequences of over-schooling among teachers

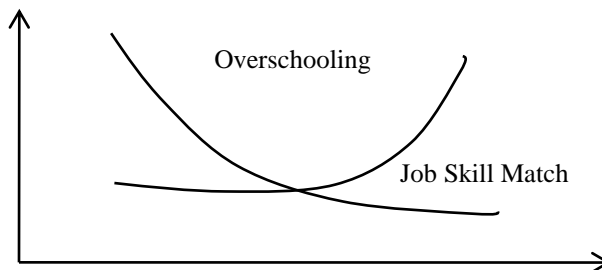
in educational institutions in Kebbi State, Nigeria.

3. Review of Related Literature

The word over-schooling has various meaning to various people. From the perspective of job placement, VanderMeer & Glebbeck (2011) viewed over-schooling as a situation where many workers have jobs which are below their qualifications. In this case teachers with qualifications that are higher than the requirement for teaching at the school they are engaged may be deemed to have over-schooled. This conception is supported by Etuk, Akpan and Etuk (2012) who viewed over-schooling as a condition whereby somebody occupies a job position which is lower in rank than what is expected of that individual based on his/her educational qualifications and training. This according to them suggests that there is an optimum job level for each level of education and those labeled over-schooled work below their optimum level.

The theoretical consideration for this paper is based on Garry Beckers (1964) human capital model in Udoh, Joseph and Amajuoyi (2014; 129), which postulates that individuals would continue to invest in education up to the point where the marginal returns to education are equivalent to marginal cost. This means that the single most influential determinant for measuring over-schooling is the ease with which the workers can be matched to jobs and that if there is a disequilibrium, those workers operating on jobs that are below their skills can be said to have over-schooled as depicted in figure 1.

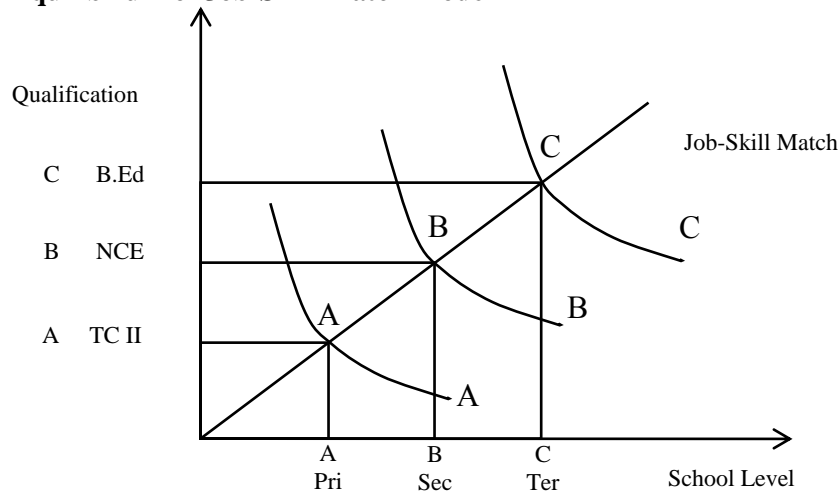
Figure 1: Human Capital Model



Source: Udoh, Joseph & Amajuoyi (2014; 129) adopted.

Thus they implies that an increase in educational qualification will lead to upward shift in the level of schooling where the teacher is expected to teach in order to correctly match his job skills and adjust the equilibrium as depicted in figure 2.

Figure 2: Equilibrium of Job-Skill Match Model



Key: A = Primary school
 B = Secondary School
 C = Tertiary school

Figure 2 shows that the ideal job skill match for teaching in primary schools is the Grade II Teachers Certificate which is an ordinary ('O' Level) qualification that the holders will feel contented at the lowest level of teaching. An increase in qualification from Grade II to NCE which is an Advanced ('A' Level) qualification could lead to an upward shift of teaching position from primary to secondary school for proper job-skill match and equilibrium. Likewise an increase in qualification to B.Ed degree should lead to an upward shift from teaching in secondary school to teaching in tertiary institutions. M.Ed and Ph.D degree holders are expected to find their equilibrium in the Universities.

The issue of over-schooling is somewhat controversial to some extent. To the average person, no one could possibly over-school, based on the notion that no knowledge acquired is a waste, more so considering the fact that learning is a continuum (Udoh, Joseph & Amajuoyi, 2014). However, over-schooling is a reality that is rapidly engulfing the teaching profession. The phenomenon of over-schooling was brought to the attention of researchers by

Freeman (2006) cited in McGuiness (2006), when he noted that excess qualified workforce has to settle for job that are far below their educational qualifications.

The causes of over-schooling in teacher education have historical, economic and political antecedents. Manga (2001) pointed out that the phasing out of Grade II Teachers Certificate as the entry qualification into teaching at the primary school and replacing it with NCE has created a disequilibrium in which NCE teachers feel that they are degraded and over-schooled to teach in primary schools, which formally were handled properly by teachers with Grade II certificates. Other causes include the fact that bulk of employment of teachers by the Ministry of Education and Primary School Board is done at the lower cadre of teaching (Rumberger, 2007); undue preference for white collar jobs rather than blue collar technical occupations (Spence, 2003); a mismatch between school curriculum in higher teacher education and curricular needs at primary and secondary school levels (Becker, 2004); proliferation of private schools that employ low level teacher manpower to cut costs (Hartlog, 2000);

establishment of more private tertiary institutions and universities without industries to absorb the graduants produced (Leuven & Oestrbeck, 2011); excessive turn out of graduate teachers in the face of limited vacancies for appointment into Civil Service (Halaby, 2004) and corrupt practices in recruitment of teachers in Nigeria (Spence, 2003). All these has compelled teachers with higher qualifications to accept teaching jobs at primary and secondary schools with low pay, that is not commensurate with their qualification, which makes the teachers to be over-schooled.

The consequences of over-schooling are diverse. According to Verdugo & Verdugo (2009), the higher knowledge acquired or possessed by teachers who are over-schooled is partially considered by them as wasted as it cannot be fully applied at the lower levels of teaching jobs, more so as knowledge decays with the passage of time. The skills acquired by over-schooled teachers in the areas of research, supervision and other complex teaching skills are wasted as they cannot be applied at lower levels of teaching (Allens & Vannervelda, 2001), the number spent on over-schooling are economically wasted as they could have been used to establish solid and profitable businesses for wealth creation (Green & McIntosh, 2007); the financial resources spent on over-schooling are wasted due to lower returns to investment based on poor remuneration at the lower levels of teaching in primary and secondary schools (Chevallier & Lindley, 2009); over-schooling results in high job mortality as over-schooled teachers are constantly looking for greener pastures and are eager to dump the work at the slightest opportunity (Madumere & Obike, 2000); over-schooling lowers productivity due to low morale and high job dissatisfaction by the teachers (Akpan, Asuro & Udofia, 2013); over-schooling leads to inability to save due to poor income for investment (Freeman, 2006); and over-schooling leads to increase in crimes in society (Colon, Johnson & Ng, 2000). These positions are further examined empirically in this study particularly as it applies to teachers teaching at various school levels in Kebbi State of Nigeria.

4. Objectives of the Study

The objectives of this study are as follows:

- To find out the causes of over-schooling among teachers in educational institutions in Kebbi State, Nigeria.
- To find out the consequences of over-schooling among teachers in educational institutions in Kebbi State, Nigeria.

5. Hypotheses

Ho₁: There is no significant difference between the mean responses of school managers and teachers on the causes of over-schooling among teachers in educational institutions in Kebbi State, Nigeria.

Ho₂: There is no significant difference between the mean responses of school managers on the consequences of scores of over-schooling among teachers in educational institutions in Kebbi State, Nigeria.

6. Research Methodology

This study adopted a descriptive survey design. The population of this study was drawn from 40 public and private primary schools; 40 public and private secondary schools; and 4 tertiary institutions selected by deliberate and stratified random sampling techniques. Purposive sampling was used in drawing the sample of 84 school managers comprising of Headmasters, Principals and Provosts of tertiary institutions. Simple random sampling technique was used to sample teachers in primary and secondary schools as well as lecturers in tertiary institutions (1 male and 1 female) from each of the educational institutions to get 168 participants. A self-designed structured instrument titled; Causes and Consequences of Over-schooling among Teachers Questionnaire (CCOTQ) was used to collect data. The instrument was duly validated and a reliability index of 0.84 was obtained using Crombatch Alpha. The hypotheses were tested using independent and t-test at 0.05 alpha level. The instrument was based on four Likert scale with criterion mean of 2.50 for decision. Weighted mean were used to determine the weight of the response for teachers and school managers for each items. Trained research assistants were

used to collect data. All the copies of the instrument were returned and used for the analysis.

7. Data Analysis and Result

The two hypotheses raised for the study were analyzed and tested sequentially.

Hypotheses One

Ho₁: There is no significant difference between the mean responses of school managers and teachers in the causes of over-schooling among teachers in educational institutions in Kebbi State, Nigeria.

Table 1: Weighted Means and t-test of the responses of School Managers and Teachers on the Causes of Over-schooling among Teachers in Kebbi State, Nigeria

S/N	Causes of Over-schooling among Teachers	Means(\bar{x})		t-value	Remarks
		Managers	Teachers		
1	Phasing out of Grade II certificate	3.8	3.7	0.98	NS
2	Bulk of teacher employment at lower levels	2.4	2.5	1.51	NS
3	Undue preference for white collar jobs	3.6	3.5	1.02	NS
4	Mismatch between curriculum and school needs	3.1	3.1	1.05	NS
5	Proliferation of private schools with low pay	3.2	3.2	1.07	NS
6	More private schools without industries	2.8	2.8	1.10	NS
7	Excessive turn out of graduates teachers yearly	3.9	3.8	0.95	NS
8	Corrupt practices in employment of teachers	2.3	2.3	1.65	NS
Average t-cal				1.17	

$N_1 = 84$; $N_2 = 168$; $df = 250$; NS = Not Significant; $t\text{-crit} = 1.96$; Average $t\text{-cal} = 1.17$

Table 1 indicates no significant difference in the mean responses of the school managers and teachers in all the identified causes of over-schooling among teachers in educational institutions in Kebbi State of Nigeria with average t-value of 1.17 is less than the critical t-value of 1.96. The null hypotheses was therefore accepted.

Hypotheses Two

Ho₂: There is no significant difference between the mean responses of school managers and teachers on the consequences of over-schooling among teachers in educational institutions in Kebbi State, Nigeria.

Table 2: Weighted Means and t-test of the responses of School Managers and Teachers on the Consequences of Over-schooling among Teachers in Kebbi State, Nigeria.

S/N	Consequences of Over-schooling among Teachers	Means(\bar{x})		t-value	Remarks
		Managers	Teachers		
1	Knowledge acquired is wasted	3.4	3.3	1.12	NS
2	Skills acquired are wasted	2.9	1.0	2.23	S
3	Years spent are wasted	3.8	1.9	2.00	S
4	Finances resources are wasted	2.7	2.5	1.20	NS
5	Over-schooling results in high job mortality	3.0	1.04	3.53	S
6	Over-schooling lowers teacher productivity	3.5	2.0	3.17	S
7	Over-schooling leads to poor savings	3.2	3.0	1.84	NS
8	Over-schooling contributes to crimes in society	2.5	1.0	2.90	S
Average t-cal				2.25	

$N_1 = 84$; $N_2 = 168$; $df = 230$; $t\text{-crit} = 1.96$; Average $t\text{-cal} = 2.25$; S = Significant, NS = Not Significant;

Table 2 reveals a significant difference in the mean responses of school managers and teachers on the consequences of over-schooling among teachers in educational institutions in Kebbi State, Nigeria. The t-values in five of the eight identified items are greater than the critical t-value of 1.96. Besides, the average t-value of 2.25 is also greater than the critical t-value of 1.96 at 0.05 level of significance which means that the null hypothesis is rejected.

8. Discussion of Findings

Data analysis in hypothesis one revealed no significant difference in the mean responses of school managers and teachers on the causes of over-schooling among teachers in Kebbi State, Nigeria. The null hypothesis tested was therefore accepted. Both school managers and teachers agreed that the bulk employment of teachers is at the lower levels and that proliferation of private schools with low remuneration as well as excessive turnout of graduate teachers in the face of limited vacancies for employment has contributed to causing over-schooling. This finding agrees with Harlog (2000), and Manga (2001) who noted that phasing of Grade II Teachers Certificate as minimum teaching qualification particularly at the primary school level was an error that created disequilibrium at the primary school level of teaching in Nigeria. Teachers with NCE in Kebbi State feel over qualified to teach at the primary school despite the provision of the National Policy on Education (FRN, 2013). Presently, untrained teachers with West African School Certificate (WASC) and National Examination Council (NECO) which are ordinary level qualifications are employed to teach in Kebbi State while trained Grade II Teachers certificate holders have been phased out of teaching at that primary school. This is a critical policy error that needs to be rectified by returning Grade II Teachers Certificate as the only acceptable ordinary level qualification for teaching in primary schools in Nigeria.

The result of testing of hypothesis two indicated a significant difference in the mean responses of school managers and teachers regarding the consequences of over-schooling among teachers in Kebbi State, Nigeria. This led to the rejection of the hypothesis. Most of the calculated t-values were greater than the t-critical. This study agrees with Verdigo and Verdigo (2009) who noted that teachers experience a sense of being over-schooled when the higher knowledge they acquire or passes cannot be satisfactorily applied at lower levels of teaching. It agrees with Cheveller and Lindley (2009) who posited that over-schooling makes the affected teachers to regrettably feel that the financial resources they

invested in over-schooling are wasted due to low returns to investment resulting from poor salary remuneration at the lower levels of teaching. The study however disagrees with Allens & Vandervelda (2001) who noted that skills acquired by over-schooled teachers are wasted as skills that are mastered virtually remain for life especially if the teachers at the lower levels are motivated to continue to participate in research activities, attendance of workshops and professional conferences. The study is in agreement with the views of school managers who felt that over-schooled teachers tend to have high job mortality, lower productivity, and poor capacity for saving and investment. Their views which were above the mean 3.0 are supported by Madumere and Obike (2000), Akpan, Asuro and Udofia (2013) and Freeman (2006). The school managers and teachers were not in agreement that years spent on over-schooling are wasted and the extent to which teachers over-schooling contribute to crimes in society. Teachers in Kebbi State are very rarely involved in criminal activities and they do not consider the years spent on over-schooling as waste as they have high hopes that their qualification provides them with a permanent possibility to get higher teaching appointment in future.

9. Conclusion

Based on the findings of this study, the following conclusions were drawn:

Over-schooling among teachers in Kebbi State of Nigeria is a real phenomenon that is partly caused by phasing out of Grade II Teachers certificate for teaching in primary schools; bulk of teacher employment being at a lower level; proliferation of private schools with low pay packages; and excessive turnout of graduate teachers with limited vacancies to absorb them.

The consequences of over-schooling among teachers in Kebbi State of Nigeria is the feeling that the knowledge, skills, years and financial resources invested on over-schooling are wasted due to poor remuneration at the lower levels of teaching. Also, over-schooling leads to high job mortality, low productivity, and poor savings.

10. Policy Consideration for Educational Managers

Policy makers at the Federal and State Ministries of Education, National Commission for Colleges of Education, National Universities Commission and Nigerian Teachers Institute should work towards a policy to re-introduce Grade II Teachers Certificate so as to re-position the equilibrium of teacher job placement from the ordinary level to Ph.D. the quality of Grade II Teachers programme if re-introduced should be enhanced for effective service deliver at the primary school level as was the case before they were phased out.

Government at both Federal, State and Local levels should work out and implement fully, the Teachers Salary Structure (TSS) for Grade II teachers who will be in Primary schools as well as NCE and B.Ed. teachers who are teaching in primary and secondary schools so as to ensure that the pay package is comparable to what obtains in other Civil Service establishments.

Private schools should be compelled by law to adjust their pay packages to be in line with approved Teachers Salary Structure (TSS) to be instituted in Public schools. The State Ministry of Education, Secondary School Management Board and Primary School Management Board should liaise to ensure compliance to enhanced pay packages by private schools.

Admission into Colleges of Education should be limited to candidates with Grade II Teachers Certificates only. Faculties of Education in Universities should be strictly admit only candidates with Grade II Teachers Certificate through Unified Tertiary Matriculation Examination (UTME) while direct entry for education courses should only be opened to NCE holders. School certificate holders of NECO and WASC who wish to study education should go through 2 years pivotal teacher training and obtain a Grade II Certificate before applying for NCE or Degree in Education programs. This will necessitate the re-establishment of Pivotal Teachers Colleges and the return of Grade II Teachers Colleges to serve

as equivalent of Senior Secondary Schools in Nigeria.

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Model Based Transformation of Students Examination Scores and Assessment of Changes in Grade Point Average

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Abstract. It is often desired to gear up students' examination scores when performance is very poor and it is required to comply with NBTE/NUC 75% pass requirements. A categorical flow of students' grade point average (GPA) is also desired when effort is being made to achieve objectives of counseling exercises. Towards these ends, this paper was intended to provide methods of score up grading and assessing changes in GPA. A two-edge linear transformation was proposed for gearing up scores. Assumptions of Markov chains and outfit of Grendenko sequence were up held to develop GPA transition matrix. Chai-square test was incorporated to ensure stationary transition and flow of GPA from one categorical level to another. Application of results carried out on different sets of two consecutive session examination results revealed that many of the students concerned had worked harder to justify movement of GPA from pass grade to lower credit grade. In some cases, performance could not be improved from lower credit grade to upper credit grade and no case of improvement from upper credit grade to distinction was revealed.

Keywords: Base-upper score limits; Markov chains principle; Grendenko estimating sequence; Stationary transition; Categorical flows.

1. Introduction

Students' performance has taken a crucial dimension in the contemporary educational system. If students' performance in a subject is very poor it may not be acceptable because it fails to fulfill National Board of Technical Education (NBTE) and National University Commission (NUC) 75% pass requirements or success rate.

Hence score transformation is desired to achieve acceptability without biasness. The study considered that the NBTE, Kaduna, accredited National Diploma (ND) and Higher National Diploma (HND) programmes offered in Kwara State Polytechnic, Ilorin, Kwara State, Nigeria. These programmes are being run for two academic sessions and a session consists of two semesters.

The following classifications of students' performance are also considered.

Score grading point

70+	A	4.0
60-69	B	3.0
50-59	C	2.50
45-49	D	2.25
40-44	E	2.0
00-39	F	0.0

Grade point average

Distinction:	GPA \geq 3.50
Upper credit:	3.00 \leq GPA \leq 3.49
Lower credit:	2.50 \leq GPA \leq 2.99
Pass:	2.00 \leq GPA \leq 2.49
Fail:	GPA $<$ 2.00

It desired that poor examination scores are moderately fitted. It is also desired that GPA transition probabilities are stationary and categorically flowing.

The score of twenty students selected at random in Mathematics will be used in the test score transformation. While the certificate result of ND and HND of 2012/2013 academic session of Kwara State Polytechic, Ilorin will be used in computing transitional probability.

2. Literature Review

The use of score transformation model is not new in educational system. According to Stockburger (2016) score transformation gives meaning and allows some kind of interpretation to the scores. Also, the transformation allows direct comparison of two scores.

Bande and Ayodele (2013) used transformation models in their study and also investigated the predictive strength of the models. The investigation revealed that the overall best of the predictors of comparability indices was the true score followed by the predictive true score.

Shira and Shlomo (2009) in their study on impact ranked-based normalizing transformations recommended Rankit for score normalization in social and behavioral sciences.

The measure of academic success or performance is another important area of consideration in education. York, Gibson and

Ranklin (2015) in their study of what is academic success affirmed that grades and grade point average (GPA) are the most commonly used measures of academic success.

There are many factors that influence academic success or performance. Some of these factors are teachers' performance, GPA, programme satisfaction and previous years' satisfaction. Out of these students satisfaction was discovered to be one of the factors that was related to GPA. (Grayson, 2004).

3. Research Methodology

This study focuses on adoption of a model of score grading to meet up with required success rate and to investigate if the grade transition is stationary.

Linear Transformation

A linear transformation is given as $T_x = aX + b$.

Where T_x is the transformed score, a is the slope (the multiplicative component of the model), b is the constant or intercept (the additive component of the model) and X is the raw score.

In estimating a and b the use of moderate basescore, upper score and second class interval of the distribution will be implored.

Markov Chains

To permit outcome of current trial to depend on outcome of preceding trial, Frank and Ron (1994) assumed that event has occurred at some trial and p_{jk} is the probability of occurrence of k th event. In this manner, sequence of trials forms Markov chains if conditional probability of event $A_i(s)$, $i= 1, 2, 3 \dots$, occurs at $(s+1)$ th trial, $s= 1, 2, 3 \dots$, after occurrence of known event at s th trial. It is further assumed that such occurrence is not modified by supplementary information on event of earlier trials and

$$0 \leq p_{ij} \leq 1$$

There is transition of state $A_i(s)$ at s th trial to state $A_i(s+1)$ th at $(s+1)$ th trial

$$\sum p_{ij} = 1; i= 1, 2, 3 \dots, k$$

ransition probability matrix (TPM) is stationary over time and its elements $p_{ij} = p_{ij}(t)$; $t, i= 1, 2, 3 \dots, k$

Let \square_t denote TPM. If number of trials $t = (s+1) - s$, then

$$\square_t = \begin{pmatrix} p_{11} & p_{12} & \dots & p_{1k} \\ \dots & \dots & \dots & \dots \\ p_{k1} & p_{k2} & \dots & p_{kk} \end{pmatrix}$$

$$p_{ij} = \square_{p_{ir}(m)} p_{rj}(t-m); i, j, r = 1, 2, 3 \dots k$$

$$= \square_{\square_m} \square_{t-m}$$

$$= \square_{\square_t}, 0 < m < t,$$

$$t = 2, m = 1, \square_2 = \square_1 \square_1 = \square_1^2$$

$$3, \quad 2, \square_3 = \square_1 \square_2 = \square_1^3$$

$$\dots \dots \dots$$

$$k, \quad k-1, \square_k = \square_1 \square_{k-1} = \square_1^k$$

If \square_1 is known, then \square_t is taken to be estimated probability. Labeling sessions, $t = 1, 2$ corresponds to 2011/12 and 2012/13 academic sessions. If $n_i(t)$ is total number of students out of which $n_{ij}(t)$ of them move from i th GPA to j th GPA, then GPA movement is categorized by $p_{ij}(t) = n_{ij}(t)/n_j(t); i, j = 1, \dots, 5$

The movement corresponds to performance outfit illustrated below.

It is desired that detail number of students in each rank of GPA is presented in the form below.

Grade	Fail	Pass	LCredit	UCredit
Distinction				
GPA	1	2	....	.... 5
Rsum				
1	$n_{11}(t)$	$n_{12}(t)$	....	....
$n_{15}(t)$	$n_1(t)$			
2	$n_{21}(t)$	$n_{22}(t)$	....	....
$n_{25}(t)$	$n_2(t)$			
..
.			
5	$n_{51}(t)$	$n_{52}(t)$	$n_{53}(t)$	$n_{54}(t)$
$n_{55}(t)$	$n_5(t)$			
Csum	$n_1(t)$	$n_2(t)$	$n_3(t)$	$n_4(t)$
$n_5(t)$				

4. Result

Score transformation:

The following semester scores in mathematics of twenty students shall be considered.

x: 21, 32, 15, 10, 25, 36, 29, 28, 21, 18

21, 21, 21, 26, 40, 29, 18, 07, 35, 45

Arranging scores in ascending order,

x: 07, 10, 15, 18, 18, 21, 21, 21, 21, 21

25, 26, 28, 29, 29, 32, 35, 36, 40, 45

The percentage frequency distribution is then constructed as follows.

CI	f	%
07-18	5	25
21-45	15	75

Selecting moderate base score = 40, upper score = 50 and second class interval of the distribution, $21a + b = 40$ and $45a + b = 50$ yield $a = 5/12$ and $b = 375/12$. Hence, fitted score transformation

$$T_x = (5x + 375)/12$$

On substituting old score x , new score

T_x : 40, 45, 36, 36, 42, 47, 44, 43, 40, 39

40, 40, 40, 43, 48, 44, 39, 35, 46, 50

New summary of acceptable results now reads

Number of students 20 (100%)

Number passed 15 (75%)

Number failed 05 (25%)

Transitional Probability Matrix:

The TPM calculated for Kwara State Polytechnic for 2011/12 ND is

$$\square_t = \begin{pmatrix} 0.67 & 0.33 & - & - & - \\ 0.12 & 0.63 & 0.26 & - & - \\ - & 0.19 & 0.64 & 0.17 & - \\ - & - & 0.25 & 0.625 & 0.125 \\ - & - & - & 1.00 & - \end{pmatrix}$$

2012/13 ND calculated TPM is

$$\square_t = \begin{pmatrix} 0.64 & 0.56 & - & - & - \\ 0.12 & 0.55 & 0.35 & - & - \\ - & 0.21 & 0.58 & 0.21 & - \\ - & - & 0.40 & 0.60 & - \\ - & - & - & - & - \end{pmatrix}$$

Similarly, TPM calculated for the Polytechnic 2011/12 HND is

$$\square_t = \begin{pmatrix} 0.62 & 0.38 & - & - & - \\ 0.625 & 0.625 & 0.3125 & - & - \\ - & 0.17 & 0.69 & 0.14 & - \\ - & - & 0.33 & 0.67 & - \\ - & - & - & - & - \end{pmatrix}$$

2012/13 HND calculated TPM is

$$\square_t = \begin{pmatrix} 0.40 & 0.60 & - & - & - \\ 0.148 & 0.667 & 0.185 & - & - \\ - & 0.15 & 0.74 & 0.11 & - \\ - & - & 0.375 & 0.625 & - \\ - & - & - & - & - \end{pmatrix}$$

Test of Hypothesis:

$H_0: \square_{cal}^2 \leq \square_{tab}^2$ to mean transition from ij th state is stationary

$H_1: \square_{cal}^2 > \square_{tab}^2$ to mean transition from ij th state is not stationary

Let o_{ij} be ij th element of the calculated χ^2_t and e_{ij} be corresponding ij th element of table χ^2_{tab} . Then k th Chai $\chi^2_{kj} = (o_{kj} - e_{kj})/e_{kj}$ and calculated Chai-square

$$\chi^2_{cal,k} = \sum \chi^2_{kj}$$

$$\chi^2_{cal} = \sum \chi^2_{cal,k}, k=1 \dots 5.$$

Let $q = p_{ij}$ and degree of freedom be $2(q-1)$. Then at 5% level of significance, the test hypothesis proposed by Frank and Ron (1994) was employed to determine whether χ^2_t is stationary or not.

For the ND, corresponding table values from the Mathematical and Statistical Tables and Formulae are

	0.4885	0.4290	0.0858	-	-
	0.1560	0.4859	0.3302	0.0440	-
$\chi^2_{tab} =$	(0.0228	0.2413	0.5015	0.2150	0.0213)
	-	0.3750	0.3160	0.5581	
0.0781					
	-	-	0.2500	0.6250	
0.1250					

The following values were calculated from above two sets of calculated and table values.

GPA	$\chi^2_{cal,k}$	$\chi^2_{tab,k}$
1	0.1727	5.99
2	0.0607	5.40
3	0.0605	5.40
4	0.1510	5.99
5	1.0000	3.84
Total	1.4449	26.62

Therefore, $\chi^2_{cal} = 1.44$, $\chi^2_{tab} = 26.62$

For the HND, corresponding table values are

	0.4082	0.4731	0.1188	-
	0.0778125	0.4675	0.4109	0.4375
	-			
$\chi^2_{tab} =$	(0.010625	0.22355	0.5754	0.1904
-)				
	-	0.0561	0.4488	0.4951

The following values were calculated from above two sets of calculated and table values.

GPA	$\chi^2_{cal,k}$	$\chi^2_{tab,k}$
1	0.14571	5.99
2	0.29095	5.40
3	0.11590	5.40
4	0.10250	5.99
5	0.00000	3.84
Total	0.65506	26.62

Therefore, $\chi^2_{cal} = 0.66$, $\chi^2_{tab} = 26.62$

In the two cases examined, $\chi^2_{cal} < \chi^2_{tab}$ revealed that H_0 was accepted. This means that TPM is stationary and GPA flows from one categorical level to another.

5. Conclusion

The adopted score transformation is satisfactory since the success rate was moved from 25% to acceptable level of 75%.

The outcome of test carried out is interpreted to mean that higher percentage of students move from pass grade to lower credit grade, lower percentage moves from lower credit grade to upper credit grade and none moves from upper credit grade to distinction grade. Therefore, it is concluded that many students had worked harder to improve their GPA from pass to lower credit. In some cases, the GPA could not be improved from lower credit to upper credit.

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Teachers' and Principals' Perception to Total Quality Management Practices in Lagos State Secondary Schools

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Abstract. This study ascertained the total quality management practices in Agege Local Government Area secondary schools in Lagos state. The research design adopted was a descriptive survey. Ten principals, 20 vice-principals and 100 teachers were selected through random sampling technique. The instrument for data collection was a researcher's self-designed questionnaire titled "Total Quality Management Assessment Questionnaire (TQMAQ). Three research questions guided the study. Data collected were analyzed with descriptive statistics, precisely mean and standard deviation. Findings of the study revealed that effective communication and follow-up of the educational process were practiced to a very high extent. Findings also revealed that the principle of total commitment is being practiced to a low extent in secondary schools in Agege Local Government Area of Lagos state. Based on the findings, the researcher recommended that government agencies such as Education District Areas and Ministry of Education should try to maintain standards by carrying out periodic inspection of staff recruited and whether they are abreast with the current challenges of the 21st century classroom management, and principals should be fully committed to TQM application for effective school administration.

Keywords: Assessment, total, quality management, secondary schools.

1. Introduction

One of the greatest concerns of Nigerians has been the issue of the standard and quality of the educational system. The development of any nation depends on the quality of its education hence conscious efforts are usually made to ensure educational quality at all levels. This explains why uniform educational standard in the Federal Republic of Nigeria (2004) was established and the various measures being taken by the federal government to ensure quality in the educational system. The establishment of specific bodies to control quality in the various levels of education is a clear indication of the commitment of the federal government to assure quality. Some of these bodies include the Universal Basic Education Board (UBEB) at the state and federal levels, Education District Offices (EDO), The National Board for Technical Education (NBTE), the National Commission for Colleges of Education (NCCE) and the National Universities Commission (NUC). Therefore, effective administration or administrative effectiveness of secondary schools may be determined by total quality management (TQM) (Iftikhaar and Hakim, 2014). Collaborating this statement, Mwaniki and Okibo (2014) maintained that total quality management (TQM) is the only tool that can improve the quality of administrative services in work organizations because it is a continuous improvement process and customers' (students) feedback is used to improve the quality of service more effectively and efficiently.

According to Rakesh and Shabarisha (2013), TQM is a philosophy and strategy- minded customer.

The authors stressed further that the word total implies that all members of the organization make consistent efforts to achieve the objective for a customer through systematic efforts for improvements while quality denotes an excellence in goods and services especially, to the degree they conform to requirements and satisfy customers (students). In the assertion of Iftikhaar and Hakim (2014), TQM is the continuous development of operations management for ways and means to raise the level of performance and reduce the time to accomplish by cutting out all the tasks and functions unnecessary for the client or the process by reducing the cost and raise the level of quality basing in all stages of development on the requirements and needs of the client. To this end, total quality management is a management philosophy and practice that aims at harnessing the human and material resources of any organization in the most effective way to achieve their organizational objectives (Oboegbulem & Onwurah, 2011). However, due to teachers and principals perception of total quality management practices in Lagos state secondary schools and with particular reference to Agege Local Government Area being the area where this study was carried out, the researcher is interested in knowing if TQM variables like effective communication, follow-up of the teaching-learning process (supervision) and commitment of school management to the philosophy of total quality were actually practiced in the delivery of functional education or not.

In the early twentieth century when scientific management movement was developing, another school of management thought developed concurrently. This school has been referred to by several names as 'Universal Principles Movement' or 'Process' or 'Functions' School. Some writers equate the ideas of this movement with those of the scientific management movement and thus come up with the name 'Foundational school of Thought' (Landers et al., 1977 in Rakesh and Shabarisha, 2013). But the name that has become most popularly associated with the movement is the 'Administrative Movement School'.

In spite of an overlap in certain areas, there is a distinction between scientific management theory and administrative management school of thought.

While scientific management ideas, as represented in Taylor's work, focused primarily on the operative level (individuals at the workshop level) from the bottom of the organizational hierarchy upwards and ignored the larger top level issues, the administrative management theorists concentrated on the upper level administration (the MD) and worked downwards on the organizational hierarchy. The administrative management theorists look for the common or universal principles that characterize successful management. So, this study is hinged on Administrative Management Theory as explained above since the activities involved in Total Quality Management as discussed in this paper involve processes of doing one thing or the other as activities relate to administrative management functions.

It is observed that secondary schools in Agege Local Government Area of Lagos state over the years have been suffering due to inadequate facilities for effective teaching and learning. Also, lack of maintenance of existing ones, lack of commitment by principals, lack of teamwork, poor communication method, lack of adequate funding, poor performance of students, especially in external examinations have been other noticeable issues among others, and these have resulted in many parents registering their wards in other states and/or private schools for good results. However, one possible way of improving this quality of education lies in the application of the ideals of Total Quality Management (TQM) in the management of secondary schools in Agege Local Government Area and in Lagos state in general, although, the situations are improving for better now. The question is to what extent are the teachers and principals practicing the elements of TQM in secondary schools in Agege Local Government Area of Lagos state?

2. Concept of Quality

With so many definitions and dimensions of quality, what is quality still remains vague. As the saying goes "beauty lies in the eyes of the viewers". We can also say that "quality lies as per the perception of the customers". In similar a vein, Norhayati, Shalini, Muhamad, Mohd, Sapiah and Rozita (2012) defined quality in terms of its "dual nature". The researcher stated that quality is of two sub-concepts, that is "quality in fact" and "quality in perception". The

authors explain, "quality in fact" as "the provider of goods and services who through dint of hard work and capital expenditures performs up to its own specifications achieves quality in fact and "quality in perception" is defined as the subjective quality as the customer sees it. Abdul-Razak, Bawa, and Abdul-Razak (2014) opined that quality consists of product features which meet the needs of the customers and thereby provides product satisfaction. In another debate, Crosby quoted in Kaplan (2014) postulated the four "absolutes to quality". According to their view, quality has to be defined as conformance to requirements not as goodness or excellence. This is to suggest that quality is only achieved when the product or the outcome is in line with the set standard. For example, in the educational circles, quality could be said to have been realised when students perform satisfactorily in their examinations. From the foregoing, it can be inferred that it is difficult to assign a single definition for quality as a concept as different researchers and writers have expressed divergent views on its definition. One can, therefore, describe it as the efficient and effective efforts the individual puts in work to achieve excellent output.

3. Concept of Management

The term management has been given various definitions by various writers. The term management is the process or method whereby a group of people at the top level of an organization plan, organize, communicate, coordinate, control and direct the actions and the activities of those who work in an organization with a view to achieving the organizational objectives (Gaspersz, 2011). In similar a vein, Kaplan (2014) posits that management is "the process of planning, organizing, leading and controlling the efforts of an organization's membership and of using all other organizational resources to achieve stated organizational goals". Scholars like Mullins (2005) and Abdul-Razak, Bawa and Abdul-Razak (2014) indicated that at its most basic sense, management could be defined as making things happen through a practical way of influencing the behaviour of employees in an organisation. The National Open University of Nigeria (2015) maintained that management consists of the interlocking functions of creating corporate policy and organizing, planning, controlling and directing an

organization's resources in order to achieve the objectives of that policy. In other words, management involves identifying the missions, objectives, procedures, rules and manipulation of the human capital of an organisation to contribute to the success of the enterprise. This implies effective communication in an organisation (as opposed to a physical or mechanical mechanism), human motivation and some sort of successful progress or outcome. On the basis of the foregoing conceptualisations of management, one could describe management as a governance strategy which aims at the efficient utilisation of organisations resources in order to achieve its objectives. Management focuses on efficiency through strict compliance with designed policies and structures that are capable of realising essential administrative functions in an organization (Kaplan, 2014).

4. The Concept of Total Quality Management (TQM)

There are numerous definitions of TQM by different scholar and researchers. According to Oduwaiye, Sofoluwe and Kayode (2012), total quality management is "the process of integration of all activities, functions and processes within an organization in order to achieve continuous improvement in cost, quality, function and delivery of goods and services for customers' satisfaction". The scholars stated further that TQM refers to the application of quality principles to the overall process and all the management functions in order to ensure total customer satisfaction. This implies the application of quality principles right from identification of customers' needs to post purchase services. In an individualistic approach, Muia (2014) defined total quality management conceptually. To Muia, total means every person associated with the company and every activity and quality is as defined by customers. Customers could be internal or external. Management refers to the prevention of fault, errors or mistakes and directions toward customers' satisfaction. To this end, TQM is defined as a management philosophy that seeks to integrate all organizational functions (marketing, finance, design, engineering, and production and customer service among others.) to focus on meeting customer needs and organizational objectives (Mwaniki and Okibo, 2014).

In similar a vein, Al-Ettayem and Zu'bi (2015) defined total quality management as the integration of all functions and processes within an organization in other to achieve continuous improvement of the quality of goods and services with the primary goal of customer satisfaction. Izuagbe (2013) as well as Al-basheer, Shawaqfeh, Mathani and Al-Jabari, (2015) opined that TQM is the foundations for activities which include commitment by senior management and all employees, meeting customer requirements, reducing development cycle times, just in time demand, flow manufacturing, improvement teams, reducing products and services costs, system to facilitate improvement, line management ownership, employee involvement and empowerment, recognition and celebration as well as challenging among others.

In a study carried out by Mohammed (2013) using the Government of Jarash, it showed that the impact degree of applying total quality criteria on the public schools' effectiveness in the Government of Jarash as viewed by the educational supervisors was high for all the areas. Eshun (2012) equally reported that culture of quality has been institutionalized in the schools and staff members are well motivated, and these were tied to high academic performance by the students in their external examinations.

John (2012) in his study on the role of Total Quality Management in the academic performance of students in secondary schools in Murang's East District of Murang's Country in Kenya, it was found that most schools were adhering to leadership, quality planning, human resource and employee empowerment principles to enhance total quality management. The study also revealed that total quality management was not applied in all schools in Murang's East district. Oduwaiye, Sofololuwe and Kayode (2012) in their study on TQM and Students' academic performance in Ilorin Metropolis found that there is effective communication in the schools and principals and staff are not re-trained on new methods of school-based management. In Kenya, a study conducted by Karani and Bichanga (2011) among Services Institution in Kenya revealed that educational

administrators are very much committed to the implementation of TQM. This simply means that the top management (administrators) is fully involved as to appraise and support their subordinates in the quality making process.

5. Follow-up of the Teaching-Learning Process (Supervision) using TQM

Another TQM variable in this study is a follow-up of the teaching-learning process (supervision). Follow-up of the teaching-learning process (supervision) is central to the attainment of the goals and objectives of the school. The National Policy on Education (2004) has highlighted in precise terms the objectives of educational supervision which among others is to ensure quality control through regular inspection and continuous supervision of instructional and other educational services. There are various definitions of educational supervision. There is the need to state some of them in order to bring out what educational supervision is, its nature and purposes in education. Bello (2015) defined supervision as a constant and continuous process of more personal guidance based on frequent visits when attention is directed to one or more aspects of the school and its organization. Igwe (2001) stated that to supervise means to direct, oversee, guide or to make sure that expected standards are met. Thus, follow-up of the teaching-learning process (supervision) is a process of ascertaining that the teachers carry out the task of teaching to an expected level according to the stipulated guidelines which control the educational system. It is also a way of persuading workers to desist from applying wrong methods and procedures in carrying out certain functions of their jobs. The essence of supervision is, therefore, the monitoring of the performance of school staff, noting the merits and demerits and using befitting and amicable techniques to ameliorate the flaws while still improving on the merits thereby increasing the standard of schools and achieving educational goals (Bello, 2015).

TQM can further be applied in secondary schools by ensuring commitment to strategic quality planning and providing human resources development in schools to motivate and realize the maximum potentials from teachers and also by being

understandable and competitive (Brown, Hitchcock and Willard, 2014 & Al-basheer, Shawaqfeh, Mathani and Al-Jabari, 2015). According to Muhammad and Rashid (2014), the foundation of an effective TQM application is commitment. Lack of administrators' commitment is one of the reasons for the failure of TQM efforts. It is also recorded that high levels of quality achievement have always been accompanied by an organizational commitment to that goal. High product quality does not exist without strong top management commitment. Gaspersz (2011) stated that the principal's support for quality is a key factor in quality improvement. In the application of TQM, all educational administrators must be committed to quality as they must actively involve in quality management and improvement process, and they must also strongly encourage teachers' involvement in quality management and improvement process (Brown, Hitchcock and Willard, 2014; Al-basheer, Shawaqfeh, Mathani and Al-Jabari, 2015).

To this end, educational administrators must realize that failure in education is a problem and a waste to the nation. Quality management may be regarded as an ideal process for making a change in the education system. In today's economy, quality has become a high priority and is at the top of most agenda (Gaspersz, 2011). Improving quality is probably one of the most important tasks any organization may be facing, whether private or public. Educational institutions are not foreign to this reality. On the contrary, they must recognize the need to pursue this quest for quality and to deliver it to pupils and students alike.

6. The Need for Effective Communication and Coordination in the Management Structure and Process

Communication is defined as transmitting information from one person to another. It is also a process of sharing and exchanging of ideas, feelings, information, and thoughts (Oboegbulem, and Onwurah, 2011). Apart from the need for effective communication and coordination in the management structure and process, the basic functions of education rely almost on communication among teachers and students as well as co-ordination among various institutional

structures and levels (Ejionueme and Oyoyo, 2015). In any institution where there is effective communication, there will be an understanding among staff, harmony in work operation, good inter-personal relationship and easy realization of common objectives and goals (Iftikhaar and Hakim, 2014). In the application of effective communication, principals are expected to establish and encourage good interpersonal relationship among the staff. That is, principals and teachers, students and principals, teachers and students are expected to establish and encourage good interpersonal relationship so as to maintain a continuous improvement in the quest for quality education. The principals are expected to apply effective communication to a very great extent in order to achieve the secondary educational objectives (Bua, 2011).

7. Purpose of the study

The main purpose of this study is to determine the extent to which total quality management is being practised in secondary schools in Agege Local Government Area of Lagos state.

8. Research Questions

Specifically, this study was concerned with finding answers to the following questions:

- What is the perception of teachers and principals of secondary schools in Agege Local Government Area of Lagos state as to the practice of effective communication in their schools?
- What is the perception of teachers and principals of secondary schools in Agege Local Government Area of Lagos state as to the extent to which supervision is being practised?
- What is the perception of teachers and principals of secondary schools in Agege Local Government Area of Lagos state as to the extent to which total commitment being practised in secondary schools in Agege Local Government Area of Lagos state?

9. Research Methodology

The descriptive survey method was adopted for this study. The study target population was all public secondary schools in Agege Local

Government Area of Lagos state, Nigeria. Records at the Ministry of Education and Human Capital Development (2015) of Lagos state revealed that Agege Local Government has 18 public secondary schools comprising of 18 principals, 52 vice principals and 292 teachers. Random sampling method was used in selecting 10 out of the 18 secondary schools which is more than 50%. Also, the 10 principals in the 10 schools plus the two available vice principals in each of the 10 schools as well as 10 teachers each from the schools were selected at random. This brought the total of respondents that was used to 130.

The research instrument used in this study is a researcher's designed questionnaire titled "Total Quality Management Assessment Questionnaire" (TQMAQ) to gather information from the respondents. The instrument was made up of two sections A and B. Section "A" consists of items seeking the demographic information of the respondents while section "B" of the questionnaire consists of 15 item questions in relation to the practice of total quality management in the sampled secondary schools. Section B was a closed ended form of questionnaire based on a five (5) point scale ranging from Strongly Agree (SA) = 5 points, Agree (A) = 4 points, Undecided (UN) = 3 points Disagree (D) = 2 points and Strongly

Disagree (SD) = 1 point. The research instrument (TQMAQ) was subjected to face validation by three experts, that is, the supervisor and two experts in Educational Administration and Planning. In determining the reliability of the instrument, a trial-test on 30 respondents including the 2 principals, 4 vice- principals and 24 teachers from secondary schools in Mushin Local Government Area of Lagos state outside the area of the study was conducted. The outcome was calculated using Cronbach's coefficient based on their responses. The alpha value obtained was 0.89.

The researcher with the help of three research assistants administered 130 copies of TQMAQ on the respondents to gather information with the use of direct the delivery technique. The questionnaire items were retrieved on the spot. In addition, data collected in the course of this study were presented and analyzed with descriptive statistics. The researcher used means and standard deviation to answer the research questions. The mean is interpreted as if Mean >3.0, the TQM item is practised to a high extent, if Mean <3.0, the TQM item is practised to a low extent. A cut off point of 3.00 was considered because it represented the mean of the continuum of the scale i.e. 5, 4, 3, 2, 1. In so doing, mean scores were used to answer the three research questions postulated earlier.

Research Question1: What is the perception of teachers and principals of secondary schools in Agege Local Government Area of Lagos state as to the practice of effective communication in their schools?

Table 1: Mean and Standard deviations of respondents response on the extent effective communication is practised in secondary schools in Agege Local Government Area of Lagos state

S/N	Items	N	X	SD	" Decision
1	Principals communicate various policies and plans to teaching and non-teaching staff	130	3.49	.63	HE
2	Principals exchange their ideas and knowledge with the teachers	130	2.92	.93	LE
3	Principals encourage inter-personal communication between them and teachers	130	3.31	.94	HE
4	Principal accept information from every staff member	130	2.96	.89	LE
5	Information from teachers is used for continuous improvement.	130	2.71	.80	
CLUSTER MEAN			3.08	0.84	HE

Key: HE = High Extent, LE = Low Extent; Cut off point/mean = 3.00

Table 1 indicated the responses of the respondents on the extent effective communication are being practised in secondary schools in Agege Local Government Area of Lagos state. The analysis shows that the respondents agreed to a high extent that principals communicate various policies and plan to teaching and non-teaching staff and principals encourage inter-personal communication between them and teachers with

mean values 3.49 and 3.31 respectively. This finding negates that of Ejionueme and Oyoyo (2015) whose findings revealed that principals to a little or no extent encourage interpersonal-relationship with their subordinate.

However, items 4, 2 and 5 have means scores of 2.96, 2.92 and 2.71 with standard deviations of .89, .93 and .80 respectively. Since these mean scores are less than the 3.00 bench mark, it means that principals to a low extent accept information from every staff member, exchange their ideas and knowledge with the teachers, and use information received from teachers for continuous improvement. These findings, therefore, support Bua (2011) whose findings showed that poor communication significantly affects secondary school administration. The implication is that effective communication should be properly applied in school administration to improve school performance. Also, when summing up, the grand mean scores are less than 3.00 benchmark, it further indicates that effective communication to a high extent was practised in secondary schools in Agege Local Government Area of Lagos state. This finding collaborated that of Oduwaiye, Sofoluwe and Kayode (2012) who found that there is effective communication in secondary schools in Ilorin metropolis.

Research Question 2: What is the perception of teachers and principals of secondary schools in Agege Local Government Area of Lagos state as to the extent to which supervision is being practised?

Table 2: Mean and Standard Deviations of Respondents’ responses on the extent the Educational process is being followed-up in Secondary Schools Agege Local Government Area of Lagos state

S/N	Items	N	X	SD	Decision
6	The principal goes around the classes while lessons are in progress	130	3.85	.51	HE
7	Committees are formed for the monitoring and supervision of staff on duty in the school	130	2.48	.83	LE
8	Class representatives (prefects) keep records of teaching in secondary schools	130	4.01	.65	HE
9	Ministry of Education and Teaching Service Commission Officials from time to time to engage in the supervision of staff for job effectiveness in the school	130	3.07	0.83	HE
10	Supervision of staff in secondary schools is done on regular basis	130	2.59	.79	LE
CLUSTER MEAN			3.20	0.72	HE

Key: HE = High Extent; LE = Low Extent

The data presented in table 2 shows the means and standard deviations of respondents on the extent the educational process is being followed-up (supervision) in secondary schools in Agege Local Government Area of Lagos state. The mean values 4.01, 3.85 and 3.07 of the respondents’ responses revealed that to a very high extent, class representatives (prefects) keep records of teaching in the secondary schools, the principal goes around the classes while lessons are in progress and the Ministry of Education and Educational District Officials from time to time engage in the supervision of staff for job effectiveness in the schools.

However, items 10 and 7 have means scores of 2.59 and 2.48 with standard deviations of .79 and .83 respectively. Since these means scores are less than the 3.00 benchmark, it means that to a little extent, supervision of staff in the secondary schools is done on regular basis and committees are formed for the monitoring and supervision of staff on duty in the schools. These findings support the assertion of Oleforo, Ikpe and Bassey (2015) who stated that when there is negligent of effective supervision by the school managers, teachers' attitude to work will dwindle, lesson notes will not be prepared and teachers' absenteeism both in schools and in classes will be at the increase thereby affecting their effectiveness negatively. The author stated further that the students' academic performance will also suffer tremendously which may lead to high drop-out rate and crime involvement as a result of poor academic performance. In fact, the whole educational system would crumble.

Also, when summing up, the grand mean value of 3.20 is above the 3.00 benchmark. This indicates that the educational process is being followed-up (supervision) to a very high extent in secondary schools Agege Local Government Area of Lagos state. This finding is in agreement with the opinion of NOUN (2015) who stated that supervising the teaching and learning process provides opportunities for teachers to be groomed through critical study of instructional processes and classroom interactions to carry out their teaching tasks in line with professional codes of conduct. If schools are not supervised adequately, it will have inimical effects on the students' output and the educational objectives may not be achieved. Consequently, various instructional supervisory techniques should be employed to ensure qualitative and quantitative service delivery by the teachers.

Research Question 3: What is the perception of teachers and principals of secondary schools in Agege Local Government Area of Lagos state as to the extent to which total commitment being practised in secondary schools in Agege Local Government Area of Lagos state?

Table 3: Means and Standard Deviations' responses of Respondents on the extent of Total Commitment is being practiced in Secondary Schools Agege Local Government Area of Lagos state

S/N	Items	N	X	SD	Decision
11	Top management of your organization is committed to quality services in the organization	130	4.22	0.86	HE
12	Performance appraisal is being encouraged in your school	130	3.42	0.74	HE
13	The school is well equipped with the requisite facilities to deliver quality services expected by students. '	130	2.22	.98	LE
14	Suggestion boxes are available for teachers and student to make comments to improve service delivery.	130	1.32	1.01	LE
15	Principals involve the teachers in decision making towards continuous improvement approaches.	130	2.94	0.98	LE
	CLUSTER MEAN		2.82	0.91	LE

Key: HE = High Extent; LE = Low Extent

The result of data presented in table 1 reveals that the cluster mean value of 2.82 of the respondents' response is below the weighted mean of 3.0. This implies that the principle of total commitment is being practised to a low extent in secondary schools in Agege Local Government Area of Lagos state. The findings are in line with the assertion of Brown, Hitchcock and Willard (2014) as well as Al-basheer, Shawaqfeh, Mathani and Al-Jabari (2015) who stated that lack of administrators' commitment is one of the reasons for the failures of TQM efforts.

10. Summary / Conclusion

There is no doubt that to achieve quality education, it is imperative that a system is put in place that will ensure stakeholders in education make conscious efforts to ensure educational quality at all levels. This study, therefore, explored the

extent to which elements of total quality management (effective communication, follow-up of the educational process and commitment to the philosophy of total quality) is being practised in secondary schools Agege Local Government Area of Lagos state. Though, the study revealed to a very high extent, the practice of effective communication and follow-up of the educational process. Findings also revealed that the principle of total commitment is being practised to a low extent in secondary schools in Agege Local Government Area of Lagos state. To this end, it is postulated that secondary school administrators and all stakeholders in education should be dedicated by ensuring total commitment to the philosophy of TQM in order to provide a functional education in Lagos state and Nigeria as a whole.

11. Recommendations

Based on the findings of this study, it was

recommended that the Ministry of Education through the principals should organize seminars, workshops, conferences for teachers where TQM attributes will be discussed for continuous quality improvement. Also, adequate educational facilities should be provided in schools in order to ensure quality instructional delivery. Again, the study found that supervision of staff in secondary schools is done on regular basis to a low extent, it is therefore recommended that government agencies such as Education District Offices and Ministry of Education among others should try to maintain standards by carrying out periodic inspection of staff recruited and they should be abreast with the current challenges of the 21st century classroom. And finally, it was recommended that principals should be fully committed to TQM application for effective school administration.

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Management Funding Strategies and Administrative Effectiveness of Private Universities in Ogun State, Nigeria.

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Abstract. This paper examined the relationship between Management Funding Strategies and Administrative Effectiveness of Private Universities in Ogun State. The design adopted for the study was descriptive survey research design. The population of the study were all the fifty (50) principal officers in the 10 approved private universities in Ogun State Nigeria. All the 50(100%) principal officers (Vice-Chancellors, Deputy Vice-Chancellors, the Registrars, the Bursars and the Librarians) who were referred to as the management team of these universities participated in the study. As a result of this, no sampling was carried out. Questionnaire tagged “Management Funding Strategies and Administrative Effectiveness Questionnaire” (MFSAEQ) were used to collect data. Inferential statistics (Pearson’s Product Moment Correlation and Multiple Regression) were used to test the six hypotheses at 0.05 level of significance.

Finding however indicated that income generated from tuition, income generated from Revenue Yielding Projects, Loan from Bank, and Income generated from Donation have significance relationship with Administrative Effectiveness ($r = 0.105$, $P < 0.05$), ($r = 0.356$, $P < 0.05$), ($r = 0.369$, $P < 0.05$), and ($r = 0.302$, $P < 0.05$) respectively. Findings also revealed that each of the independent variables covered in this study have individual effect on Administrative Effectiveness ($R^2 = 0.16$, $P < 0.05$). Findings

finally shown that there is a joint or composite significant effect of independent variables on Administrative Effectiveness ($F = 553.04$, $P < 0.05$). Based on the above findings, some of the recommendations made include; Private universities should increase the gap between the revenue generated from the school fees and the running cost of the university. Private universities should tackle funding challenges by establishing more revenue yielding ventures instead of depending on the income generated from the tuition fees.

Keywords: Management Funding Strategies, Administrative Effectiveness, Private Universities.

1. Introduction

The rationale for the provision of education is to provide a productive investment in human capital, and the provision of higher education is to prepare and equip the beneficiaries the stock of skills and knowledge to be useful to themselves and the nation at large. The Federal Government of Nigeria (2014) in the National Policy on Education states that Higher Education in Nigeria is expected to accomplish seven goals which are to; contribute to national development through high level relevant manpower training; develop and inculcate proper values for survival of the individual and

society; develop the intellectual capacity of individuals to understand and appreciate their local and external environment; acquire both physical and intellectual skills which will enable individuals to be self-reliant and useful members of the society; promote and encourage scholarship and community service; forge and cement national unity; and promote national and international understanding and interaction. Based on the above, one may infer that the importance of higher education has made the demand for university education increase over the years resulting in a very high percentage of unsatisfied demand every year, hence, this led to the establishment of Private Universities in Nigeria in the year 1999.

Private universities according to Varghese (2002) encompass a broad range of institutions that are self-financing. Belfied and Lerin (2003) referred to Private Universities as non-public or independent universities who do not receive governmental funding and are usually administered by denominational or secular boards; others are universities operated for profit. Olaniyan (2001) also refers to private universities as those universities that are solely owned, financed and managed by private individuals with intention to recover cost in short time and make profit.

However, almost all nations of the world today are passing through a hard time of economic depression, austerity and inflation. Under such difficult economic conditions, educational institutions particularly Private universities are bound to experience dwindling and inadequate financial and material support from the public and private sectors. The situation of deep economic recession we face today poses great challenges to proper financing, management and administration of private universities in Nigeria. Idialu and Idialu (2012) opined that the expectation of producing educated persons for national and individual development is higher at the university level. He stated further that apart from the human resources, among the several factors which contribute to the achievement of the goals and objectives of universities, adequacy of funding has been identified as possibly the most crucial in maintaining and improving the quality of university education.

Private universities in Nigeria today are confronted with excessive inadequacy of infrastructure and facilities for teaching and research which have remained a cog in the wheel of effective administration of the system. This situation put the management of private universities in Nigeria under undue stress and as a result they are incapacitated in transforming the system towards effective teaching, research and community services.

2. Funding Strategies of Private Universities in Nigeria.

It is a general belief that the survival of any organization depends greatly on the amount of resources at its disposal. This is equally applicable to the school system, money is required to attract, retain and develop the staff, maintain the school plants and other materials for effective functioning of the school. Bamisaiye (1992) stated in a specific term that every school administrator requires sufficient money for carrying out thoroughly the following activities in the school; to integrate properly the human, physical and material resources in the school towards accomplishing the goals of the school; to provide and administer properly adequate welfare services, for the students; with astronomical increase in students' enrolment, sufficient money is required to expand the existing physical structures, put up additional buildings, maintain the entire plant and improve its aesthetic value, etc.

Private Universities are financed in several ways. Students of Private Universities pay school or tuition fees. The system relies heavily on tuition fees to meet their expenditure. The cost of running and sustaining private university is very high and may remain so because of the prevailing economic situation, this explains why tuition and other fees in private universities will keep on the increase because they have a commercial mindset, and thereby serve as a deterrent to many qualified candidates whose parents cannot afford the exorbitant school fees. Adepoju (2006) opined that students of secondary and post-secondary institutions in Nigeria are asked to pay school or tuition fees as examination fees, uniform fees, development

levy etc. He further that all these are possible ways through which funds for educational programmes can be raised to enhance administrative effectiveness of any institution.

Also, private universities embark on revenue yielding projects such as practical farming, poultry, bookshops, hotel and catering services, printing press, consultancy service, establishment of pre-primary, primary and secondary schools etc to generate funds. Such cooperative efforts according to Ijaduola (2002) have yielded impressive results. School halls, libraries and other developmental projects have been achieved by some private universities through such efforts. Adepoju (2006) also buttressed that proceeds from school projects is another possible source of financing educational programmes in Nigeria. He added that schools or institutions have established Consultancy services (such as Polyventure, U.I venture, OAU venture etc), bookshops, farm projects, catering services, Rental services and hotels. All these according to him have been yielding revenue for such schools or institutions and through this, many educational programmes have been executed and this had brought about effectiveness of administration of such institutions.

Private universities also borrow loans to execute their programmes. Loans borrowed from the banks by these private institutions have been used for developmental projects and payment of staff salaries. This has gone a long way to keep the system functioning till today. Akangbou (2006) reiterated that Nigeria Universities (Private Universities included) have taken loans from banks to pay salaries of the workers in the past and are repaid later.

Donation from individuals, charitable and non-governmental organization (NGOs) is another source of financing private universities in Nigeria. Generous members of the public who are individuals or corporate bodies according to Akinsuroju (2008) donate to private universities, colleges and other institutions of learning in Nigeria. He further that, private institutions themselves solicit for funds from graduates of their institutions, as well as from members of the

general public, Graduates and Alumni of private institutions at times donate monetary and materials to their alma-maters to enable them to engage in expansion projects, fund grants for research and development, and to enhance physical infrastructures and wealth of knowledge. All these strategies according to him have contributed to the administrative effectiveness of private institutions of learning in Nigeria in the past.

3. Statement of the Problem.

Funding of private universities particularly in Nigeria requires some strategies. It appears that authorities of some private universities are yet to discover other strategies apart from tuition fees. Even the effect of this is not felt in the day-to-day administration of the system. Income generated from tuition alone is not sufficient to run the system. As a result of this, management of these universities could hardly embark on developmental projects that could enhance effective teaching and research which determine the administrative effectiveness of any university. It is therefore the desire of the researcher to find out the correlational effects of Management funding Strategies on Administrative Effectiveness of Private Universities in Ogun State.

4. Hypotheses

The null hypotheses that will be tested in this study are:

HO₁: Income generated from tuition will not have significant correlation with Administrative Effectiveness of Private Universities in Ogun State.

HO₂: Income generated from Revenue Yielding Projects will not have significant correlation with Administrative Effectiveness of Private Universities in Ogun State.

HO₃: Loan from Bank will not have significant correlation with Administrative Effectiveness of Private Universities in Ogun State.

HO₄: Income generated from Donation will not have significant correlation with Administrative Effectiveness of Private Universities in Ogun State.

HO₅: Each of the independent Variables (tuition fees, Revenue Yielding Projects, Bank Loan and Income generated from Donation) will not have relative contribution to Administrative Effectiveness of Private Universities in Ogun State.

HO₆: There is no significant joint contribution of independent Variables (tuition fees, Revenue Yielding Projects, Bank Loan and Income generated from Donation) on Administrative Effectiveness of Private Universities in Ogun State.

5. Purpose of the Study.

The specific objectives of the study are:

- To investigate how Income generated from tuition exert influence on administrative effectiveness of private universities in Ogun State.
- To examine to the core and establish the kind of relationship existing between Income generated from Revenue Yielding Projects and administrative

effectiveness of private universities in Ogun State.

- To look at the impact that loan from the Bank will have on administrative effectiveness of private universities in Ogun State.
- To study indepth how Income generated from Donation contribute to administrative effectiveness of private universities in Ogun State.

6. Methodology

The study adopted a descriptive survey where no variable was manipulated or controlled but studied. The population of the study comprises all the fifty (50) principal officers in the 10 approved private universities in Ogun State Nigeria. All the 50(100%) principal officers (Vice-Chancellors, Deputy Vice-Chancellors, the Registrars, the Bursars and the Librarians) who were referred to as the management team of these universities participated in the study. As a result of this, no sampling was carried out.

List of Approved Universities in Ogun State and the years founded

S/N	Name of Private Universities	Years Established
1	Babcock University, Ilishan Remo	1999
2	Bell University of Technology, Ota	2005
3	Christland University, Abeokuta	2015
4	Christopher University, Ibokun Aro	2015
5	Covenant University, Ota	2002
6	Crawford University, Igbesa	2005
7	Crescent University, Abeokuta	2005
8	Hallmark University, Ijebu-Itele	2015
9	Mcperson University, Seriki Sotayo	2012
10	Southwestern University, Okun Owa	2012

Source: Ministry of Education, Ogun State, April 2017.

6.1 Instrument

The instrument used for the study was a questionnaire titled: Management Funding Strategies and Administrative Effectiveness Questionnaire (MFSAEQ) personally developed by the researcher which has five parts and designed on a 4-point Likert scale of Strongly Agreed (SA), Agreed (A), Strongly Disagreed (SD), and Disagreed (D).

6.2 Validity and Reliability of the Instrument

The validity of the instrument was established by experts and some eminent educationists. Instrument reliability was established with test-retest that gave $r = 0.82$. This shows that the instrument was reliable and can be used to carry out the study.

6.3 Analysis of Data

The retrieved questionnaires were analyzed using inferential statistics (Pearson’s Product Moment Correlation and Multiple Regression). This is to establish the relationship between pairs of variables and to determine the extent to which the combination of independent variable explains the dependent variable as well as the relative contribution of each of them to dependent variable, using 0.05 as level of significance.

7. Results and Findings

Hypothesis One: Income generated from tuition will not have significant correlation with Administrative Effectiveness of Private Universities in Ogun State.

Table 1: Correlation Analysis Result showing the relationship between income generated from tuition and Administrative Effectiveness of Private Universities in Ogun State.

Variable	N	Mean	SD	DF	R	P- Value	Remark
Tuition	50	14.23	5.42	46	0.105	0.007	Sig.
Administrative Effectiveness	50	10.34	4.16				

*Significant at 0.05 level of significance.

Table 1 reveals that there is a significant relationship between income generated from tuition and Administrative Effectiveness of Private Universities in Ogun State ($r = 0.105, P < 0.05$). Therefore, the null hypothesis is rejected.

Hypothesis Two: Income generated from Revenue Yielding Projects will not have significant correlation with Administrative Effectiveness of Private Universities in Ogun State.

Table 2: Correlation Analysis Result showing the relationship between income generated from Revenue Yielding Projects and Administrative Effectiveness of Private Universities in Ogun State.

Variable	N	Mean	SD	DF	R	P- Value	Remark
Revenue Yielding Projects	50	34.02	6.23	46	0.356	0.001	Sig.
Administrative Effectiveness	50	21.71	3.41				

*Significant at 0.05 level of significance.

Table 2 shows the null hypothesis is rejected at 0.05 level of significance ($r = 0.356, P < 0.05$). Therefore, there is significant relationship between income generated from Revenue Yielding Projects and Administrative Effectiveness of Private Universities in Ogun State.

Hypothesis Three: Loan from Bank will not have significant correlation with Administrative Effectiveness of Private Universities in Ogun State.

Table 3: Correlation Analysis Result showing the relationship between Loan from Bank and Administrative Effectiveness of Private Universities in Ogun State.

Variable	N	Mean	SD	DF	R	P- Value	Remark
Loan from Bank	50	34.46	6.16	46	0.369	0.003	Sig.
Administrative Effectiveness	50	26.43	5.28				

*Significant at 0.05 level of significance.

Table 3 indicates that there is a significant relationship between Loan from Bank and Administrative Effectiveness of Private Universities in Ogun State. ($r = 0.369$, $P < 0.05$). Therefore, the null hypothesis is rejected at 0.05 level of significance.

Hypothesis Four: Income generated from Donation will not have significant correlation with Administrative Effectiveness of Private Universities in Ogun State.

Table 4: Correlation Analysis Result showing the Relationship between Income Generated from Donation and Administrative Effectiveness of Private Universities in Ogun State.

Variable	N	Mean	SD	DF	R	P- Value	Remark
Donation	50	30.12	1.73	46	0.302	0.009	Sig.
Administrative Effectiveness	50	56.67	12.71				

*Significant at 0.05 level of significance.

The above table indicates the relationship between Income generated from Donation and Administrative Effectiveness. It shows that there is a positive significant relationship between Income generated from Donation and Administrative Effectiveness of Private Universities ($r = 0.302$, $P < 0.05$). This shows that Donation contributes to Administrative Effectiveness of Private Universities in Ogun State.

Hypothesis Five: Each of the independent Variables (tuition fees, Revenue Yielding Projects, Bank Loan and Income generated from Donation) will not have relative contribution to Administrative Effectiveness of Private Universities in Ogun State.

Table 5: Estimate of Relative Contribution of Independent Variables on Administrative Effectiveness of Private Universities in Ogun State.

Model	B	Std. Error	Beta weight	Rank	T	P-Value	R ²	Remark
Constant	26.208	4.108	-		5.122	0.001	0.16	
Tuition	0.648	0.013	0.332	1 st	4.361	0.001		Sig.
Revenue Yielding Projects	0.461	0.189	0.050	2 nd	2.685	0.005		Sig.
Loan	0.213	0.652	0.415	4 th	1.823	0.042		Sig.
Donation	0.263	0.370	0.448	3 rd	1.916	0.037		Sig.

Significant at 0.05 level.

Table 5 shows that Tuition fees made the greatest contribution to Administrative Effectiveness ($B = 0.648$), the second in the magnitude of these relative is Revenue Yielding Projects ($B = 0.461$), the third position is Income generated from Donation ($B = 0.263$) and followed by Loan from the Bank ($B = 0.213$) in that order. R^2 is 0.16 i.e. 16%, this implies that independent variables only accounted for 16% of variation that occur in dependent variable.

Hypothesis Six: There is no significant joint contribution of the independent variables (tuition fees, Revenue Yielding Projects, Bank Loan and Income generated from Donation) on Administrative Effectiveness of Private Universities in Ogun State.

Table 6: Regression Summary of the effect of Independent variables (tuition fees, Revenue Yielding Projects, Bank Loan and Income generated from Donation) on Dependent Variable (Administrative Effectiveness).

R = 0.842

R Square = 0.724

Adjusted R Square = 0.771

Std. Error of the Estimate = 2.66280

Model	Sum of Square	Df	Mean square	F	P-Value	Remark
Regression	47133.52	4	2558.88	553.04	0.001*	Sig.
Residual	251434.47	46	5.30			
Total	298567.99	50				

*Significant at 0.05 level of significance.

Table 6 shows that the four independent variables: Tuition fees, Revenue Yielding Projects, Bank Loan and Income generated from Donation have positive correlation with Administrative Effectiveness (R= 0.842). This means that the four independent variables are in good position to determine the Administrative Effectiveness of Private Universities in Ogun State. The variables further explain that about 77.1% of the total variation in independent variable(Adjusted R Square = 0.771). The adjusted R Square value of 0.771 revealed that the four variables accounted for 77.1% of the total variance in the dependent measure. The remaining 22.9% could be due to errors and factors that are not considered in this study. Hence, the computed joint effect of the independent variable on Administrative Effectiveness is significant.

8. Discussion of Findings.

The analysis in table 1 indicated that tuition fees has significant relationship with administrative effectiveness of Private universities in Ogun State. Tuition as highlighted by Adepoju (2006) in the review of literature has positive relationship with administrative effectiveness of Private universities in Nigeria. Where he opined that students of secondary and post-secondary institutions in Nigeria are asked to pay school or tuition fees as examination fees, uniform fees, development levy etc, all these are possible ways through which funds for educational programmes can be raised to enhance administrative effectiveness of any institution.

Table 2 revealed that Income generated from Revenue Yielding Projects have significant correlation with administrative effectiveness of Private universities in Ogun State. The finding supports the earlier findings of Ijaduola (2002) and Adepoju (2006) that schools or institutions

have established Consultancy services (such as Polyventure, U.I venture, OAU venture etc), bookshops, farm projects, catering services, Rental services and hotels. All these, according to him, have been yielding revenue for such schools or institutions and through this, many educational programmes have been executed and this had brought about effectiveness of administration of such institutions.

Table 3 indicates that Loan from Bank have significant correlation with Administrative Effectiveness of Private Universities in Ogun State. This perhaps correlates with the earlier study of Akangbou (2006) that Nigeria Universities (Private Universities included) have taken loans from banks to pay salaries of the workers in the past and are repaid later. Private organizations have also obtained loans to undertaken educational programmes to enhance administrative effectiveness of their organizations or institutions.

Table 4 shows that Income generated from Donation have significant correlation with Administrative Effectiveness of Private Universities in Ogun State. The finding was corroborated by Akinsuroju (2008) that generous members of the public who are individuals or corporate bodies donate to private universities, colleges and other institutions of learning in Nigeria. Private institutions themselves solicit for funds from graduates of their institutions, as well as from members of the general public, Graduates and Alumni of private institutions at times donate monetary and materials to their alma-maters to enable them to engage in expansion projects, fund grants for research and development, and to enhance physical infrastructures and wealth of knowledge. All these strategies according to him have contributed to the administrative effectiveness of

private institutions of learning in Nigeria in the past.

Table 5 established that each of the independent variables (tuition fees, Revenue Yielding Projects, Bank Loan and Income generated from Donation) has relative contribution to Administrative Effectiveness of Private Universities in Ogun State using multiple regression. Each of the variables mentioned in this study turned to have strong relationship with Administrative Effectiveness in terms of the magnitude of the weight of regression coefficient (Beta). The standardized regression coefficient (Beta) was used to determine the relative contribution each of the variables on Students' achievements. The significance of each variables contribution was also tested and all of them were significant at $P < 0.05$. This means that every school administrator requires sufficient money for carrying out thoroughly the following activities in the school; to integrate properly the human, physical and material resources in the school towards accomplishing the goals of the school; to provide and administer properly adequate welfare services, for the students; with astronomical increase in students' enrolment, sufficient money is required to expand the existing physical structures, put up additional buildings, maintain the entire plant and improve its aesthetic value, etc. This is in agreement with Bamisaiye (1992).

Table 6 attempted to establish relationship between each of the predictor variables and Administrative Effectiveness of Private Universities in Ogun State (Tuition fees, and Income generated from Revenue Yielding Projects turned to be the most powerful determinant of administrative effectiveness of private Universities in Ogun State in terms of the magnitude of the weight of regression coefficient). The analysis shows that there is a joint or composite significant effect of independent variables on Administrative Effectiveness. Since, the value of $F(538.04)$ is greater than the P value (0.001) at a significant level of 0.05, this leads to the rejection of null hypothesis and the acceptance of the alternative one. This is in agreement with Idialu and Idialu (2012) who

identified adequacy of funding as possibly the most crucial in maintaining and improving the quality of university education.

9. Conclusion

Management of private universities requires sufficient money for integrating properly the human, physical and material resources in the school towards accomplishing the goals of the institutions. This is evident from the study and the positions of various scholars. It is then envisaged that if private universities in Nigeria are to meet up to the mandate of contributing to the absorption of excess social demand for university education as saddled by the Federal Government of Nigeria, and to stand the test of time, it is high time for the Management Team of these universities to generate more funds through other strategies apart from the tuition fees.

Based on the findings of this study, the following recommendations were made:

- (i) Private universities should increase the gap between the revenue generated from the school fees and the running cost of the university.
- (ii) Private universities should tackle funding challenges by establishing more revenue yielding ventures instead of depending on the income generated from the tuition fees.
- (iii) The management team of private universities should acquire skills in adaption, and practice cost-reduction by improvising and experimenting with the available financial resources at their disposal.
- (iv) All income generation activities must be formalized and their proceeds officially receipted and put in a specific vote head. The income should be reflected on the monthly trial balance of the school to avoid embezzlement of the profits.
- (v) Checks and balances need to be put in place to ensure that the strategies adopted in generating income for the school do not interfere with core

objectives of the school. Any aspect of a strategy that can negatively impact on learning activities must be galvanized.

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Protection of Students Right to Dignity, Privacy and Non-Discrimination for Global Competitiveness in the Management of Tertiary Institutions in Kebbi State, Nigeria

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Abstract. The protection of students' right is one of the strategies of providing an enabling environment for students to unfold their talents for global competitiveness. This study for this reason, investigated in tertiary educational institutions in Kebbi State. The descriptive survey design was used for the study. Stratified and simple random sampling techniques were used to sample the views of 150 lecturers and 250 students from 5 tertiary institutions in Kebbi State. A researcher designed instrument based on four point Likert Scale was validated, with reliability index of 0.89 was used to collect data. The cut-off mean of 2.5 was used for decision. Mean and Rank Order was used to analyze data to answer the research questions. z-test was applied to test hypotheses at 0.05 alpha levels. It was found that students right to dignity of the human person, private and family life, as well as freedom from discrimination were protected by the management of tertiary institutions in Kebbi State. It was recommended that the protection of students' right should be upheld as a strategy for ensuring global competitiveness.

Keywords: Students Right, Dignity, Privacy, Discrimination, Global competitiveness, Management.

1. Introduction

The world is today at a stage in history where there is stiff competition in almost every aspect of human endeavor be it in the area of music, sports, science and technology among others. Amid this competitiveness, education occupies a center stage as the source of all knowledge required by man for socio-cultural advancement of society. Ugo (2002) stated that

education unlocks the door to modernization. Tertiary educational institutions are looked upon as citadels of learning and centers of excellence for the production of manpower required for rapid national development (Babalola, 2007). The Federal Republic of Nigeria (2004: 36) defined tertiary education as the education given after secondary education in Universities, Colleges of Education, and Polytechnics including those institutions offering correspondence courses. Global competitiveness is one of the fundamental objectives of tertiary education in most countries of the world. This is provided in the National Policy on Education (FRN, 2004:36) which states that the goals of tertiary education includes the development of intellectual capability of individuals to understand, appreciate their local and external environments and promotion of national and international understanding and interaction among others. Students are first and foremost, the prime beneficiaries of the laudable goals of tertiary education as the extent to which they imbibe the noble goals determining these quality if their knowledge, skills and attitudes which are applied in national transformation and by extension global competitiveness.

2. Statement of Problem

Students in tertiary institutions are the hope of the nation and the pride of their parents. What they know, of fail to know could determine the quality of manpower they are able to provide on graduation for better or for worse. To ensure that students in tertiary institutions acquire the right quality of education, they must be provided with conducive physical and psychological environment (Ekpo, Anuna & Okoli,

2002). Although a lot has been done to equip students' to global standards, yet a lot still needs to be done in the case of tertiary institutions in Kebbi State. One of the areas that require serious attention is the protection of students' legal rights, which is extremely essential in enabling them to unfold their potentialities and capabilities to take the challenges of global competitiveness. In recent times however, there a lot complaint by students that their legal rights are not adequately protected by the management. Thus the main thrust of this study is to investigate the extent to which students' legal rights are protected to ensure global competitiveness in tertiary institutions in Kebbi State.

3. Research Questions

The following research questions were formulated to guide the conduct of this study:

- What is the perception of students and lecturers on the extent to which students' right to dignity of the human person protected for global competitiveness in the management of tertiary institutions in Kebbi State?
- What is the perception of students and lecturers on the extent to which students' right to private and family life protected for global competitiveness in the management of tertiary institutions in Kebbi State?
- What is the perception of students and lecturers on the extent to which students' right to freedom from discrimination protected for global competitiveness in the management of tertiary institutions in Kebbi State?

4. Research Hypotheses

Ho₁: There is no significant difference between the mean scores of students and lecturers on protection of students' right to dignity of the human person for global competitiveness in the management of tertiary institutions in Kebbi State.

Ho₂: There is no significant difference between the mean scores of students and lecturers on protection of students' right to privacy and family life for global competitiveness in the management of tertiary institutions in Kebbi State.

Ho₃: There is no significant difference between the mean scores of students and lecturers on protection of students' right to freedom from discrimination for global competitiveness in the management of tertiary institutions in Kebbi State.

5. Objectives of the Study

The objectives of this study are as follows:

- To find out the perception of students and lecturers on the extent to which students' right to dignity of the human person are protected for global competitiveness in the management of tertiary institutions in Kebbi State.
- To find out the perception of students and lecturers on the extent to which students' right to privacy is protected for global competitiveness in the management of tertiary institutions in Kebbi State.
- To find out the perception of students and lecturers on the extent to which students' freedom from discrimination are protected for global competitiveness in the management of tertiary institutions in Kebbi State.

6. Significance of the Study

This study is significant to students in tertiary educational institutions as it will gauge their awareness and the extent to which they perceive the institutions efforts at protecting their legal rights. This awareness will enable them to stand consciously in the law and to voice out their grievances to the management for prompt redness. The findings of the study will enable the managements of tertiary institutions in Kebbi State to be more proactive and vigilant in protecting the legal rights of students. The protection of students' legal rights to dignity of the human person, right to private and family life as well as freedom from discrimination will create a conducive atmosphere where students study in peace and achieve academic excellence for global competitiveness.

7. Review of Relates Literature

Students in tertiary institutions globally constitute the potential manpower that will enable nations to achieve advancement and withstand global competition. The maintenance of an environment where the rule is respected is one of the pre-conditions for nurturing human potentials (Anuna, 2004). To ensure an orderly environment the first and perhaps one of the most important legal rights of students that need to be protected by the management of tertiary institutions is students right to the dignity if the human person as provided in the constitution of the Federal Republic of Nigeria (1999), Section 34 (1). Ginsberg (1996), Ekpo

and Okoli (2003), Burton (2007), and Fisher (2007) all pointed out that students should be protected from harassment, intimidation, assault, battery, slander, and psychological stress to enable them compete globally.

Students in tertiary institutions are generally adults who can sue or be sued by the institutions. Thus as adults they need privacy and family life. The constitution of the Federal Republic of Nigeria (1999) in Section 37 (1) states that the privacy of citizens life, their homes, correspondence, telephone conversations and telegraphic communications is guaranteed and protected by law. According to Holland and Webb (2001), McLeod (2003), Kodelinye and Aluko (2010), Ogunu (2015) and Malemi (2017), the protection of students' right to private and family life will enable them to marry, undertake parenthood, and be able to balance the challenges of their studies and their role as parents. Burton (2007) believes that this will enable students to concentrate on their studies and be fully prepared for global competitiveness.

Section 42 (122) of the constitution (FRN, 1999), states that no citizen of Nigeria shall be subjected to any disability or desperation merely by reason of the circumstances of his birth. To this end Malemi (2017: 307) notes that by implication no student who is a citizen of Nigeria of a particular community, ethnic group, place of origin, sex, religion or political opinion shall be subjected either expressly by, or in the practical application of any law in force in Nigeria or any executive administrative action, to disabilities or restrictions to which citizens of Nigeria are not made subject or be accorded any privilege or advantage that is not accorded to citizens of Nigeria. Ujo (2003), Sanni (2007), Obilade (2009), and Oyedeji (2012) opined that educational managers should strictly ensure that all students are protected from discrimination if they are to be able to face the challenge of global competitiveness

8. Research Methodology

The descriptive survey design was used in conducting this study as it sampled the perceptions of students and lecturers on the extent to which students' legal rights to dignity of the human person, right to private and family life as well as freedom from discrimination are protected with a view to enabling students have a conducive environment for global competitiveness. The population of the study was made up of five tertiary institutions in Kebbi State while 150 lecturers and 250 students were sampled using stratified and simple random sampling techniques. A researcher designed and validated questionnaire titled: Protection of Students Legal Rights Questionnaire (PSLRQ) was used to generate data for the study. The instrument had 25 items spread into three sections. A modified Likert Scale type of rating scale was used: Strongly Agree (SA) = 4; Agree (A) = 3; Disagree (D) = 2; and Strongly Disagree (SD) = 1. The cut of 2.5 and above was used to indicate the mean for agreement, while means that fall below 2.5 indicated disagreement. The instrument on validation using test and re-test method yielded a reliability coefficient index of 0.89. Mean computation and Rank Order were used to analyze the data to answer research questions, while z-test statistics was used to test the hypotheses at 0.05 alpha level.

9. Findings

The research questions were formulated to guide the study. They were answered and presented in table 1-3

Research Question One

RQ1: What is the perception of students and lecturers on the extent to which students' right to dignity of the human person protected for global competitiveness in the management of tertiary institutions in Kebbi State?

Table 1: The Mean and Rank Order of Students and Lecturers Perception on the Protection of Students Right to Dignity of the Human Person for Global Competitiveness in the Management of Tertiary Institutions in Kebbi State.

S/N	Protection of students right to dignity of the human person	Students mean (\bar{x})	Lecturers mean (\bar{x})	Mean set	Rank	Decision
1	Students dignity without discrimination	2.84	2.24	2.54	5 th	Agreed
2	Students are protected against assault	2.50	2.74	2.62	2 nd	Agreed
3	Students are protected against slander	2.51	2.65	2.58	3 rd	Agreed
4	Students are protected against libel	2.47	2.39	2.43	8 th	Disagreed
5	Students are protected against battery	2.59	2.55	2.57	4 th	Agreed
6	Protected against false accusations	2.74	2.68	2.71	1 st	Agreed
7	Protected against sexual harassment	2.49	2.47	2.48	6 th	Disagreed
8	Protected against abusive language	2.46	2.45	2.46	7 th	Disagreed

Table 1 showed the mean and rank of items as follows: protection against false accusations (2.71, 1st), protection against assault (2.62, 2nd), protection against slander (2.58, 3rd), protection against battery (2.57, 4th), and protection against discrimination (2.54, 5th). Apart from protection against sexual harassment (2.48, 6th) and protection against abusive language (2.46, 7th), which means were below the criteria mean of 2.5 and so were rejected, other items had means above the criteria mean. Those items are therefore accepted as the measures taken to protect students' right to dignity of the human person for global competitiveness in the management of tertiary institutions in Kebbi State.

Research Question Two

RQ2: What is the perception of students and lecturers on the extent to which students' right to private and family life is protected for global competitiveness in the management of tertiary institutions in Kebbi State?

Table 2: The Mean and Rank Order of Students and Lecturers Perception on the Protection of Students Right to Private and Family Life for Global Competitiveness in the Management of Tertiary Institutions in Kebbi State

S/N	Protection of students right to private and family life	Students mean (\bar{x})	Lecturers mean (\bar{x})	Mean set	Rank	Decision
1	Protection of right to private life	2.70	2.64	2.67	5 th	Agreed
2	Protection of telephone conversation	2.43	2.37	2.40	11 th	Disagreed
3	Protection of private electronic messages	2.61	2.59	2.60	9 th	Agreed
4	Protection of students academic records	2.57	2.67	2.62	8 th	Agreed
5	Protection of nakedness in conveniences	2.60	2.58	2.59	10 th	Agreed
6	Protection of students medical records	2.63	2.65	2.64	7 th	Agreed
7	Protection of counseling records	2.66	2.64	2.65	6 th	Agreed
8	Protection from indecent touching	2.51	3.01	2.76	4 th	Agreed
9	Protection of students right to marry	2.85	3.09	2.97	1 st	Agreed
10	Students right to be pregnant	2.79	3.07	2.93	2 nd	Agreed
11	Students right to attend to family matters	2.73	3.06	2.90	3 rd	Agreed

Table 2 showed the mean and rank of items as follows: protection of right to get married (2.97, 1st), protection of right to get pregnant in matrimony (2.93, 2nd), protection of right to attend family matters (2.90, 3rd), protection of right to privacy from being touched by opposite sex indeblently in public (2.76, 4th), protection of right to privacy and family life without discrimination (2.67, 5th), protection of counseling records of students (2.65, 6th), protection of privacy of students medical records (2.64, 7th), protection of students' academic records (2.62, 8th), protection of privacy of students electronic messages (2.60, 9th), and protection of students nakedness in toilets and bathrooms (2.59, 10th). Apart from protection of privacy of students, which mean of (2.40, 8th) is below the criteria mean of 2.5, and so was rejected, all other items are therefore accepted as measures taken by management of tertiary institutions to protect students right to private and family in Kebbi state.

Research Question Three

RQ3: What is the perception of students and lecturers on the extent to which students' right to freedom from discrimination is protected for global competitiveness in the management of tertiary institutions in Kebbi State?

Table 3: The Mean and Rank Order of Students and Lecturers Perception on the Protection of Students Right to Freedom from Discrimination for Global Competitiveness in the Management of Tertiary Institutions in Kebbi State

S/N	Protection of freedom from discrimination	Students mean (\bar{x})	Lecturers mean (\bar{x})	Mean set	Rank	Decision
1	Protection from gender discrimination	2.87	2.27	2.57	8 th	Agreed
2	Protection from tribal discrimination	2.53	2.77	2.65	5 th	Agreed
3	Protection from local govt. discrimination	2.54	2.68	2.61	6 th	Agreed
4	Protection from state discrimination	2.50	2.42	2.48	10 th	Disagreed
5	Protection from scholarship discrimination	2.62	2.58	2.60	7 th	Agreed
6	Protection from disciplinary discrimination	2.73	2.71	2.74	1 st	Agreed
7	Protection from religious discrimination	2.52	2.50	2.51	9 th	Agreed
8	Protection from parental discrimination	2.66	2.68	2.67	4 th	Agreed
9	Protection from disability discrimination	2.71	2.73	2.72	2 nd	Agreed
10	Protection from resource discrimination	2.68	2.70	2.69	3 rd	Agreed

Table 3 showed the mean and rank of the items as follows: protection of students from discrimination on handling of disciplinary cases (2.74, 1st), protection from discrimination on grounds of physical disability (2.72, 2nd), protection from discrimination on allocation of school resources (3.69, 3rd), protection from discrimination on grounds of parental background (2.67, 4th), protection from discrimination on grounds of tribe (2.65, 5th), protection from discrimination on grounds of local government (2.61, 6th), protection from discrimination on award of scholarships (2.60, 7th), protection from discrimination on grounds of gender (2.57, 8th) and protection from discrimination on religious grounds (2.51, 9th). Apart from protection from discrimination on grounds of state of origin (2.48, 10th), which mean was below the criteria mean of 2.50 and so was rejected, all other items had means above the criteria mean. The items are therefore accepted as extent of measures taken by the management to protect students’ rights from discrimination for global competitiveness in the management of tertiary institutions in Kebbi State.

Hypotheses

The hypotheses raised for this study were tested and presented in table 4-6:

Hypotheses One

Ho₁: There is no significant difference between the mean scores of students and lecturers on protection of students’ right to dignity of the human person for global competitiveness in the management of tertiary institutions in Kebbi State.

Table 4: Summary of z-test Analysis on the Significant Difference between the Mean Scores of Students and Lecturers on the Protection of Students’ Right to Dignity of the Human Person for Global Competitiveness in the Management of Tertiary Institutions in Kebbi State

Participants	N	\bar{X}	SD	df	z-cal	z-crit	Decision
Students	250	20.33	9.94	398	0.096	1.960	Not significant
Lecturers	150	20.22	10.06				

Table 4 shows that at 0.05 level of significance at 398 degree of freedom, the calculated and tabulated z values are 0.096 and 1.960 respectively. Since the calculated value is less than the tabulated value of z, hypotheses one is therefore accepted. Thus there is no significant difference between students and lecturers view on protection of students’ right to dignity of the human person for global competitiveness in the management of tertiary institutions in Kebbi State.

Hypotheses Two

Ho₂: There is no significant difference between the mean scores of students and lecturers on protection of students’ right to private and family life for global competitiveness in the management of tertiary institutions in Kebbi State.

Table 5: Summary of z-test Analysis on the Significant Difference between the Mean Scores of Students and Lecturers on the Protection of Students’ Right to Private and Family Life for Global Competitiveness in the Management of Tertiary Institutions in Kebbi State

Participants	N	\bar{X}	SD	df	z-cal	z-crit	Decision
Students	250	21.38	10.29	398	0.768	1.960	Not significant
Lecturers	150	20.46	10.24				

Table 5 indicates that at 0.05 alpha level and 398 degree of freedom, the calculated Z value of 0.768 was less than the critical z-value of 1.960. Since the calculated value is less than the critical value of z, hypothesis two is accepted. This means that there is no significant difference between students and lecturers view on protection of

students' right to private and family life for global competitiveness in the management of tertiary institutions in Kebbi State.

Hypotheses Three

Ho₃: There is no significant difference between the mean scores of students and lecturers on protection of students' right to private and family life for global competitiveness in the management of tertiary institutions in Kebbi State.

Table 6: Summary of z-test Analysis on the Significant Difference between the Mean Score of Students and Lecturers on the Protection of Students' Right to Freedom from Discrimination for Global Competitiveness in the Management of Tertiary Institution in Kebbi State

Participants	N	\bar{X}	SD	df	z-cal	z-crit	Decision
Students	250	20.31	9.92	398	0.094	1.960	Not significant
Lecturers	150	20.20	10.04				

Table 6 indicates that at 0.05 level of significance and 398 degree of freedom, the calculated z-value of 0.094 is less than the critical z-value of 1.960. This signifies that hypothesis three is accepted, which implies that there is no significant difference between the views of students and lecturers on the protection of students' right to freedom from discrimination for global competitiveness in the management of tertiary institutions in Kebbi State.

10. Discussion

Both students and lecturers were of the view that positive measures have been put in place to protect students' right to the dignity of the human person in tertiary educational institutions in Kebbi State. This is in line with the provisions of the Federal Republic of Nigeria (FRN, 1999) constitution. However, the participants opined that a lot still need to be done to protect students against sexual harassment, use of abusive language by teachers as well as in cases of libel. This inadequacy contradicts the views of Burton (2007), Ekpo and Okoli (2003) who suggested that management should strictly protect students' right to dignity of the human person so as to provide a favourable environment for global competitiveness.

The perception of students was similar to lecturers as both groups agreed that the management of tertiary institutions in Kebbi State to a large extent adequately protect students' right to private and family life. This is in accord with the provision of the constitution of the Federal Republic of Nigeria (1999). They however noted that strategies need to be put in place to protect the privacy of students' telephone conversation. This is contrary to the views of Holland and Webb (2001), Kodelinye and Aluko (2010) who advised that all

aspects of students' privacy should be protected at all times by the management of the institutions in order to prepare students for global competitiveness.

The views of students and lectures on the protection of students' right to freedom from discrimination were similar as they believe that tertiary institutions in Kebbi State positively protect students against discrimination. This is in agreement with the provision of the constitution of Nigeria (1999). However the participants noted that one of the major lapses is that discrimination still persists in the basis of state of origin when it comes to issues admission due to concepts of quota system, catchment area and prevalence of institutional staff requests for placement of less qualified students as against those who merit it. This is in disagreement with the views of Sanni (2007), Aluko (2010) and Oyedeji (2012) who maintained that students must be protected against any form of discrimination to give them a sense of belonging which is necessary for global competitiveness.

11. Conclusion

Based on the findings and implications of this study, the following conclusions were drawn:

Students' right to dignity of the human person; private and family life as well as right to freedom from discrimination are protected for global competitiveness in the management of tertiary educational institutions in Kebbi State. However, certain aspects such as protection against sexual harassment and use of abusive language by lecturers on students, and discrimination of students based on state of origin still persist to some extent.

Protection of students rights to dignity of the human person, private and family life as well as freedom from discrimination are necessary for the attainment of global competitiveness in the area of higher education.

12. Recommendations

The protection of students' rights to dignity of the human person should be maintained for global competitiveness in the management of tertiary institutions in Kebbi State. Factors causing sexual harassment and use of abusive language should be investigated and dealt with promptly.

The students' right to private and family life should continue to be protected at all times. Guidance and counseling service should be intensified for married students and prospective couples so as to enable them to cope effectively with their studies and the challenges of family life.

Discrimination of students on grounds of state of origin should be guided strictly by legal provisions of Federal Character as well as State Education Laws. Tertiary institutions in Kebbi State should ensure that students and lecturers from all parts of Nigeria and beyond are represented in order to encourage national and global competitiveness.

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Part Five
Educational Techonology



Institutional Climate and Management Administrative Commitment as Correlates of Productivity of University Lecturers in Delta State Nigeria

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Abstract. The purpose of this research is to investigate institution climate and management administrative commitment as correlates of university lecturers' productivity in Delta State Nigeria. The study specifically looked at relationship institution climate and management commitment has on university lecturers' productivity. The population of the study comprised all the 2190 academic staff of universities in Delta State. The research used the stratified sampling technique to sample one federal, one state and one private university each this gives 1808 as the sampled population. To further reduce the sample size to manageable size, the study used the random sampling technique to sample the 19% of the lecturers in Federal University of Petroelum Resources (FUPRE) i.e. 140 out of 722, 17% i.e. 150 from 976 of Delta State University Abraka (DELSU) and 18% i.e. 21 from Novena University, Amai. This gives 311 as the total sample figure made up of only senior lecturers and above who are considered by law to be capable of holding or may have held management position. The instrument for data collection was a self-constructed questionnaire. The instrument was validated by colleagues in the department of Educational Management and Foundations and that of counselling psychology who are specialist in measurement and evaluation. Thus,

the face content and construe validity were ensured. For the content and construct validity the study used 30, i.e. 10 lecturers each selected from the three universities of study who are not part of the sampled respondents for the main study. The Pearson product Moment Correlation (r) was used to obtain a reliability coefficient 'r' of 0.79 and 0.77 respectively for the two subscales using the test retest method. The research used the frequency and mean score, and standard deviation to answer the research questions and for the test of hypothesis, the hierarchical present and multiple regressions were used. The results were analyzed and presented on tables. Four research questions were raised as guide and four hypotheses were tested at 0.05 level of significance. Among the findings, there was a significance relationship between institutions climate and management administrative commitment, there was significant relationship between institution climate and university lecturers productivity. The research therefore recommended among others that heads of institutions should endeavour to create workable, likeable, stress free, educational conducive, emotional and intellectually safe environment through the promotion of institution-community, emotional and intellectually safe environment through the promotion of institution-community

relationship, provision of current, state of the art instructional materials, team work and the use of feedback mechanism.

Keywords: Administration, Institutional Climate, Management Administrative Commitment, Productivity

1. Introduction

1.1 Background to the Study

Organizational climate has been viewed from many perspective and defined differently in various ways by different people. Heuriegel and Sloutum (1974: 256) sees organizational climate as “a set of attributes that can be perceived about an organization and or it units described by the practices, processes, and ways of dealing with members of the unit and its environment”. More relatedly to this topic is the definition of Hodgetts and Altman (1979:344) as “a set of property of the work environment perceived by individuals who work there and which serve as a major force in influencing their job behaviour”. Peretomode (2014 P 624) summarized these definitions and others and highlighted that organizational climate

- is the perception by members of an organization or school (and sometimes by visitors) which distinguish one from another
- influences the employees (and students) work behaviour and performance in the school
- is a product of formal and informal group characteristics and other factors in the work environment, a product of the interaction between students, teachers and administrators in a school.
- is subjective because it is based on perception.

Greenberg, Weissberg, Uthe O’Brien, Zins, Fredricks, Rezruik and Elias (2003), write on positive school climate as a school environment that allows for the production of students who are culturally literate, intellectually reflective and committed to lifelong learning and high quality education that teaches young people to interact in socially skilled and respectful ways,

to practice positive, safe and healthy behaviours, to contribute ethically and responsibly to their peer groups, family, school and community; and to possess basic competencies, work habits, and values as a foundation for meaningful employment and engage citizenship.

Researches of Cohen, McCabe, Micheki and Pickeral, (2009) show

that positive school climate is a critical dimension of effective risk production, health promotion efforts and learning, interpersonal relationship and the school environment. Similarly, Peretomode (2014: 624) asserts that “organizational climate is directly related to the leadership and management style of the leader, based on the values, attributes, skills, and actions as well as the priorities of the leader”.

1.2 The Importance of Organizational / School Climate

The concept of organizational/school climate is important to educational managers and administrators. This is so because according to Peretomode (2014) there is evidence that managers or administrators can influence the climates of their organizations/institutions that some climates are likely to yield better results for specific tasks than others. Therefore an educational administrator will have a difficult time exercising his educational leadership roles without a sufficient supportive climate within which to work. Consequently, improving an organizational/institutional climate can lead to improvement in personal and group relations within the organization. That is the reason Sergiovamni and Sturrantt, (1979) stress giving importance to organizational climate so as not to limit the total amount of leadership style available in the school.

Types of school climate: There are different types of school climates, according to Halpin (1966:174-180) that exist in schools as “open, autonomous, controller, familiar, paternalistic and closed climate”.

Open climate: Refers to the openness and authenticity of interaction that exists among the school leadership, students and parents. Hoy and Sabo (1998) describes open climate as reflecting the school leadership and teachers/lecturers

cooperative supportive and receptive attitudes to each other's ideas and then commitment to work. There is high supportiveness, low directive, low hindrance, low disengagement, high collegial relations, and high commitment.

Autonomous climate: Portrays an atmosphere where teachers are given a good measure to operate in the school. The leadership models enthusiasm and diligence, no external threat or influence, teachers/lecturers have great desire to work. The relationship among the leadership, teachers/lecturers, student and parents is cordial with staff and students highly motivated to work.

Controlled climate: Headship is over emphasized, although workers are committed to work, the leadership often employs direct approach and keeps distance from the seeking students and parents so as to avoid familiarity.

Familiar climate: The leadership is mostly concern about maintaining friendly atmosphere at the expense of task accomplishment making the parents, teachers and students not to be committed to the school objective.

Paternal climate: This situation when there is a degree of closeness between the principal and teacher, the school head is energetic, considerate but benevolently autocratic.

Closed climate: There is lack of commitment and unproductiveness, no emphasis on task accomplishment, the leadership stresses routine, initiate and unnecessary work, the leadership is rigid and controlling, considerate, unsupportive and un-responsible leading to frustration, intolerance and in effectiveness of staff.

1.3 Factors that influence the Climate of Organization / School

There are numerous factors that influence the climate of organization such as educational institutions. These can be summarized from the works of Peretomode (2014) likert and likert (1976) Dubrin (1974) Halpin and Crafts (1963) and Forehand (1968).

Organizational Policy: Organizational policy whether written or implied create impressions and perception in the organization over a period of time, that is the reason Litwin and Stringer (1968) sees climate as the perceived subjective

effects of the formal system, the attributes, beliefs, values and motivation of people who work in a particular organization.

The size and structure of the organizations

The size and structure of an organization or an institution determines the climate that prevails. A large institution with many units will certainly have a strict hierarchy divisions which most times is characterized by rigidly, traditionalism and bureaucratic tenderness as against a smaller and less mechanize hierarchy which will be innovative and flexible.

Decision-making practices

The institutions/organization decision-making practices and process determine its climate. An organization/institution where there is shared or collaborative decision making, creative relationship, commitment of all concerned, there is acceptance of decisions, improved quality of decisions and integration of divergent views. All these reflect positively on the climate of the school. However, some participation or collaboration decision making processes or practices may also negatively affect the climate of the organization according to James (1982) cited in Peretomode (2014) resulting in "group-think" making the staff member develop on illusion of invulnerability, rationality, morality, developing stereotype views, self-censorship from any demiation so as to minimize doubts and counter arguments and have perception of a shared illusion of unanimity concerning judgements to the majority view.

Values: The value system in the organization positively or negatively affects the organizational climate, Gibson, et al (1977) noted that an organization which places high value on the welfare of its employees will develop much warmer, friendly climate.

Economic Condition of the Organization

The economic conditions of an organization reflect its climate. When the economy is good, employees have confidence and are relaxed than when the economy is light, this reflect the non-permanency of organization/institution climate, and an organization/institution climate may reverse to close climate when budget is reduced and the economy worsen.

Technological availability and adequacy

When technology is available and adequate, teaching is current, available and adequate

making employees work hard, feel satisfied as a result of the extrinsic and intrinsic rewards which reflects on the climate of the organization. The reverse may be the case when technologies are not current, not available or adequate.

Management Administrative Commitment and Productivity

Commitment in general refers to ones level of involvement in the organization – it is the outcome in which one agrees with decision or request and makes a great effort to carry out that decision or request. However in relation to the education/school setting, commitment is the administrative effectiveness, dedication and loyalty to leadership responsibility of the institution in achieving its sets of objective through cordial, interpersonal relationship, institutional safety and conducive teaching and learning environment.

Therefore, management administrative commitment calls for taking care of the staff which accordingly increase productivity, improvement in the quality of work; skills, knowledge, understanding and attitudes; enhancement of the use of tools and machine, reduction of waste, accidents, turnover, lateness to work, absenteeism and other overhead costs, elimination of obsolete in skills, technologies, methods, products and capital management. Commenting on benefits of managing academic staff of universities, Igwe and Oragu (2013) noted that it bring incumbents to that level of performance needed for the job; enhance the implementation of new policies and regulations; reposition people for achievement, improve man power development and ensures survival and growth.

Management commitment to staff promotes higher and quality performance through motivating the staff to greater participation in making decision and being part of the implementation of such policies and attainment of institutional objectives. Therefore commitment is related not only to behaviour but also to performance and productivity.

There are various factors which affect organizational/institutional commitment of employees. From the works and researches of Baren and Greenberg (1990), Kanderiberghe, 1996, Benkhof, 1997, and Meyer and Allen 1997, the effects of organizational institutional

commitment of employees can be summarized below:

- The higher the level of responsibility and authority an employee is given, the higher the level of commitment. Job role and promotion opportunities can also enhance or reduce commitment. Age, years of service and gender are employees characteristics that are corollates of commitment. While lack of employment opportunities reduces the level of commitment.
- Positive work environment and organizational structure affect commitment. These include location, physical structure, safety; work practices, management style, less bureaucratic barriers and flexible administrative structure.
- Management administrative commitment can have both negative and positive effect on the institutional climate and productivity of lecturers. This include the strength of an individual involvement in the organization, teachers motivation to work, attitude, including belief and behaviour, and intention towards work. Cohen (2003) states that organizations whose members have higher level of commitment show higher performance and productivity and lower level of absenteeism and tardiness, as it releases their creativity and contributes toward organization development initiative. Researchers such as: Daar, (2010) Perminc, Leaudbeater and Blatt, (2011) Manning and Saddlemine (1996) abound that institutional climate is important to the overall production of teachers and the success of any school.
- Management administrative commitment influence institution climate because according to Babayemi (2006), management (school heads) have the responsibilities of ensuring that facilities are in good shape, even with the meagre resources at their disposal, management have the responsibility of providing teachers'/lecturers and other instructional staff with necessary

resources for effective teaching. Curriculum leadership (2007) noted that great schools (2014) providing meaningful opportunity for professional development commitment of teachers, and using different forms of commitment to build a strong link to school-community- relations, making school a welcoming place for all staff, student and their families.

Dean (2014) supports this by advocating collaboration with staff and school community in decision making and that all stakeholders have opinions and input to provide which should be respected and valued. Therefore, collaboration creates an open, productive, climate which leads to increase in productivity and results.

Consequently, according to Baron and Greenberg (1990), management administrative commitment provide promotional opportunities to enhance/diminish organization commitment low level of responsibility and autonomy of teachers commitment to educational institution decrease teachers belief and acceptance of the goods and values of institution.

1.4 Purpose of the Study

The purpose of this research is to investigate the administrative institutional climate and management administrative commitment as correlates of university lecturers productivity in Delta State Nigeria. The study specifically looked at relationship institution climate and management commitment, have on university lecturers productivity.

1.5 Significance of the Study

The findings of this research will benefit university administrators specifically tertiary institution management and administrators; vice chancellors, provost and rectors as well as secondary and primary school heads. This will make them improve their institutions/colleges/schools' climate for enhanced productivity.

Furthermore, the findings will tremendously help policy makers – Ministry of Education

official on the need to enhance school climate for committed work force. This research would also provide data for future researchers on this and other related areas.

2. Methodology

The population of the study comprised all the 2190 academic staff of universities in Delta State. The research used the stratified sampling technique to sample one federal, one state and one private university each this gives 1808 as the total sampled population. To further reduce the sample size to manageable size, the study used the simple random sampling technique to sample 19% of the lecturers in Federal University of Petroleum Resources Ugbomro - Effurun (FUPRE) i.e. 140 out of 722, 17% i.e. 150 from 976 of Delta State University Abraka (DELSU) and 18% i.e. 21 from Novena University, Amai. This gives 311 as the total sample figure made up of only senior lecturers and above who are considered by law to be capable of holding or to have held management positions.

The instrument for data collection was a self-constructed questionnaire on institution climate, management administrative commitment and productivity of university lecturers in Delta State. The questions contain four (4) sections. Section A is on demographic data such as name of university, status of lecturers, age, experience and highest educational qualification. Section B is on institution climate, section C is on management administrative commitment and section D is on university lecturers productivity. The instrument contains items/statements which respondents reacted to in an adapted 4-point likert type scale. The instrument was validated by colleagues in the department of Educational Administration and that of counselling psychology who are specialist in measurement and evaluation. Thus, the face, content and construct validity were ensured. For the content and construct validity the study used 30, i.e. 10 lecturers each selected from the three universities of study who are not part of the sampled respondents for the main study. The Pearson product Moment Correlation (r) was

used to obtain a reliability coefficient ‘r’ of 0.79 and 0.77 respectively for the two subscales using the test re-test method. The questionnaire was administered and collected immediately with the help of two research assistants. Thus, 100% return rate was ensured. The research used the frequency and mean score, and standard deviation to answer the research questions and for the test of hypothesis, the hierarchical preset and multiple regressions were used. The results were analyzed and presented on tables.

3. Research Questions

- What is the relationship between institution climate and management administrative commitment of university lecturers
- What is the relationship between institution climate and university lecturers productivity
- What is the relationship between management administrative

commitment and university lecturers productivity

- What is the relationship between institution climate, management administrative commitment and university lecturers productivity

4. Hypothesis

Ho1: There is no significant relationship between institution climate and management administrative commitment.

Ho2: There is no significant relationship between institution climate and university lecturers’ productivity

Ho3: There is no significant relationship between management administrative commitment and university lecturers’ productivity

Ho4: There is no significant relationship between institution climate, management administrative commitment and university lecturers’ productivity.

5. Presentation of Data

Research Question 1: What is the relationship between institution climate and management administrative commitment

Ho1: There is no significant relationship between institution climate and management administrative commitment of university lecturer.

Table I: Descriptive and regression analysis of institution climate and management administrative commitment of university lecturers

Sources of variance	n	r	R ²	Adj R ²	SS	Df	Ms	F	Sig
Regression	311	.761	.579	.577	22025.292	1	22025.292	424.268	.000
Residual					16041.306	309	51.914	-424.268	P<.05
Total					38066.590	310			

	Unstandardized coefficients	Unstandardized coefficient			
Model	B	Std	Beta	t	Sig
1. (Constant)	6.410	1.971		3.253	.001
Institution Climate	1.756	.085	.761	20.598	.000

Predictors (Constant): Institution climate

Dependent Variable: Management Administrative Commitment

From the table above, institution climate highly correlated with management administrative commitment with $r = .761$ while $R^2 = .579$ was found significant at $F(1,309) = 424, 268 P < .05$. The adjusted R-square of .557 indicates that institutional climate contributed 57.7% variance to management administrative commitment. The standardized beta coefficient of .761 also showed that institution climate contributed significantly to management administrative commitment. The null hypothesis was therefore rejected. This inferred that there was a significant relationship between institution climate and management administrative commitment of university lecturers.

Research Question 2: What is the relationship between institution climate and productivity of university lecturers?

Ho2: There is no significant relationship between institution climate and university lecturers productivity

Table II: Descriptive and regression analysis of institution climate and productivity of university lecturers

Sources of variance	n	r	R ²	Adj R ²	SS	Df	Ms	F	Sig
Regression	311	.424	.180	.177	6835.207	1	6835.207	67.627	.000
Residual					31231.391	309	101.072		P<.05
Total					38066.590	310			

	Unstandardized coefficients	Unstandardized coefficient	Beta	t	Sig
Model	B	Std			
1. (Constant)	26.879	2.408		11.162	.000
Institution Climate	.412	.050	.424	8.224	.000

Predictors (Constant): Institution climate

Dependent Variable: University lecturers' productivity

The result from table 2 above, shows $r = .434$. The R^2 of .180 was significant at $F(1,309) = 67.627$ $P < .05$. The adjusted R^2 of .177 indicates institution climate contributed 17.7% to the variance of lecturers productivity. The standard beta value of .424 shows that institution climate contributed significantly to university lecturers' productivity. It therefore means that institution climate is significantly and highly correlated to university lecturers' productivity. The null hypothesis was therefore rejected.

Research Question 3: What is the relationship between management administrative commitment and university lecturers' productivity?

Ho3: There is no significant relationship between management administrative commitment and university lecturers' productivity

Table III: Descriptive regression analysis of the relationship between management administrative commitment and university lecturers' productivity

Sources of variance	n	r	R ²	Adj R ²	SS	Df	Ms	F	Sig
Regression	311	.069	.005	.002	182.144	1	182.144	1.486	.224
Residual					37884.454	309	122.603		P
Total					38066.590	310			<.05

	Unstandardized coefficients	Unstandardized coefficient	Beta	t	Sig
Model	B	Std			
1. (Constant)	45.778	.688		66.533	.000
Management Administrative Commitment	2.051	1.683	.069	1.219	.224

Predictors (Constant): Management Administrative Commitment

Dependent Variable: University Lecturers Productivity

The result in table 3 shows that management administrative commitment $r = 0.69$, while R^2 of .005 at $F(1,309) = 1.486$ $P < .05$ was not significant. With the adjusted r^2 of .002 indicates that management administrative commitment contributed only .2% to the variance of university lecturers productivity this shows that there is a relationship which was not significant, therefore the null hypothesis of no significance was therefore accepted.

Table IV: Descriptive and regression analysis of the relationship between institution climate management administrative commitment and university lecturers productivity

Sources of variance	n	r	R ²	Adj R ²	SS	Df	Ms	F	Sig
Regression	311	.791 ^a	.625	.623	23809.607	2	11904.803	257.185	.000 ^a
Residual					14256.991	308	46.289		
Total					38066.598	310			

Regression Coefficients

Model	Unstandardized coefficients		Unstandardized coefficient		t	Sig
	B	Std	Beta	t		
1. (Constant)	.493	2.168			-.227	.820
Institution Climate	1.608	.084	.696		19.150	.000
Management Administrative Commitment	.220	.035	.226		6.209	.000

Predictors (Constant): Institution Administrative Management Administrative Commitment
 Dependent Variable: University Lecturers Productivity

The result in table iv shows that institution climate and management administrative commitment are highly related to university lecturers productivity with $r = .791$, while R^2 of .625 is significant at $F(2,308) = 257.185$, $P < .05$ the adjusted R^2 of .623 also indicates that the two (2) independent variables i.e. institution climate, and management administrative variables accounted for 62% variance in university lecturers productivity. This indicates that there existed a very high significant relationship. The null hypothesis was therefore rejected.

6. Discussion of Results

The first finding arose from the test of hypothesis one and provides answer to research question one; that there is a high correlation between institution climate and management administrative commitment of university lecturers. This agrees with Moorhead and Griffin (2001) who contends that school climate can be manipulated to positively affect the behaviour of people connected with the school. In the same vein, from Allen (2003) and Cotton (2004), organizational climate is said to be a meaningful construct with significant implications for understanding human behaviour, as climate can

potentially influence an individual’s behaviour in the organization/institution. Such human behaviour can be said to be management administrative commitment. This finding is also supportive of Peretomode (2014) when he emphasized that management administrative commitment reflects the persisting school climate which is also described as the institutional heads dedication and administrative effectiveness in promoting school peace and safety, collaborative interpersonal relationship, collective decision making, and conducive teaching and learning environment.

When school institution climate is conducive, and healthy, when there is fairness and equality, sense of belonging and motivation, staff potentials will be maximized and utilized for productive outcome.

The second finding indicates that there is a significant relationship between institution climate and university lecturers productivity. This supports the works of Allen (1997 and 2003), Greenberg, Weissberg, Utter O’Brien, Zins Fredricks, Rezenth and Elias (2003) and Peretomode (2014) that organizational institutional climate is directly related to the leadership and management style and commitment. This is seen in the improvement in

the quality of work, skills, knowledge, attitude, understanding, reduction of waste, turnover and overhead cost. Positive institution climate foster teamwork according to Cohen (2003) team work serves better in teaching, and learning and creates effectiveness and efficiency in the classroom. Team spirit arising from institution climate increases the school head and lecturers competency in job, as a result of the prevailing friendly, aesthetic physical environment, cordial and collegial relationship.

The third finding indicates that there is a relationship which was not significant between management administrative commitment and university lecturers' productivity. Management administrative commitment contributes only 2% to the variance of university lecturers' productivity. This finding supports the research of Ayeni (2012) which noted that management administrative commitment of school is not the major factor which affects staff productivity but other principal variables such as poor condition of infrastructure, inadequate instructional materials, poor financial support and low commitment of parents to their children's education and low number of teachers engaged in research to improve curriculum delivery affects productivity.

Management administrative commitment of school heads, which emphasizes production according to Itlpin (1966:151) make them to be rigid. However, Silver (1983:183) asserted that production emphasis ranges from "very strong to no emphasis". Therefore, any school management administrator who emphasizes production very strongly believes that people work best under tension and pressure which is not healthy for school climate.

Similarly, Holpin (1966), Hoy and Tarher (1997) found out low supportive, high directive and low engaged (school head) principal behaviour shows low commitment which is an attribute of closed and unhealthy organizational/institution climate which reflects on the output of such organization or institution.

The fourth finding reveals that there is significant relationship between institution

climate, management administrative commitment and university lecturers' productivity. The two variables: institution climate and management administrative commitment accounted for 62% variance in university lecturers' productivity. Therefore, education institution climate is significantly related to management administrative commitments as seen from the writings of Hoy, Tarter and Kottkamp (1991) which reveals that there are two dimensions of management administrative commitment such as school heads leadership aloofness, production emphasis, thrust and consideration and these lead to teachers/lecturers poor dimensional behaviour – disengagement hindrance, esprit and intimacy, therefore climate of the school and the productivity of staff. While low level of crimes, less fear, less behaviour problem, cooperation, commitment, respect, trust, tolerance, better atmosphere, leads to achievement, efficiency, effectiveness and productivity.

7. Conclusion

This research revealed among some others that there is positive significant relationship between positive institutional climate, management administrative commitment and university lecturers productivity.

This research has also shown that school heads/administrators could promote institution/school climate or destroy it through their administrative endeavour, style, disposition or indisposition seen in some challenges such as division and non-cooperative stance, tension, unresponsiveness, assault, intimidation, rigidity, disorderliness, lack of trust, disrespect, higher behaviour problems, inefficiency, in-effectiveness and eventually less productiveness.

Therefore, institution climate needs good management administrative commitment so as to be productive arising from provision of sufficient instructional supervision, quality infrastructure, equipment and facilities, welcoming and conducive school culture and relationship which makes the output of such institution productive.

8. Recommendations

Based on the findings, the following recommendations were offered:

Heads of institutions should endeavour to create a workable, likeable, stress free, educational conducive, emotional and intellectually safe environment. This can also be done through promotion of institution – community relationship, provision of current state of the art instructional materials, team work, staff and student centered development plans, taking care of staff needs and interest, collective decision making and the use of feedback mechanism. These have been known to be a two way traffic i.e. creating a positive climate promotes good management administrative commitment which in turn produce, positive climate with the overall effect of high productivity while negative climate creates the opposites.

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Effects of Concept Mapping and Demonstration Method on Senior Secondary Two Biology Students' Achievement in Genetics in Jos North, Plateau State

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Abstract. This study examined the effects of concept-mapping and demonstration on senior secondary two Biology students' achievement in genetics in Secondary Schools in Jos North Local Government Area of Plateau State. The population/sample for the study was sixty (60) Biology students comprising of 32 males and 28 females were randomly drawn from one of the secondary schools in Jos North Local Government Area of Plateau State. Three (3) research questions were answered in the study and two (2) hypotheses were tested at a significant level of 0.05. The instrument used to collect relevant data from the students is GAT (Genetics Achievement Test). Mean, standard deviation and t-test statistical analysis were used to analyze the two hypotheses formulated for the study. The result of the analysis revealed that: there is significant difference between the post-test mean scores of students taught genetics using concept-mapping and those taught using demonstration method. The results also showed that there is no significant difference between the post-test mean scores of male and female students taught genetics using cooperative method. The recommendations derived from this study includes; Biology teachers should adopt the used of concept-mapping method in the teaching of genetics in the secondary schools. Curriculum planners should incorporate concept mapping in the curriculum and Teachers should

be train and re-trained on how to effectively use the concept mapping method in the teaching of genetics and biology in general.

Keywords: Effects, Concept-mapping, Demonstration, Achievement, Genetics

1. Introduction

The usefulness of Biology as a subject cannot be over emphasized. Biology is very necessary for the management of our natural resource, provision of good health facilities for the masses, adequate food supply and favorable life environment.. Biology is an important science subject and a requirement for further learning of number of science related professional courses like medicine Pharmacy, Nursing etc. According to general biology wiki books (2013) the word Biology means" the science of life. The main objective of teaching Biology as stated in the national Policy on education include providing students with: adequate laboratory techniques, meaningful and relevant knowledge, ability to apply science knowledge to everyday life in matter of personal and community health and agriculture, reasonable and functional scientific attitude (Federal Republic of Nigeria,2008). Biology curriculum covers topics like Ecology variation, evolution, genetics etc.

Genetics is a branch of biology that concerned with the study of variability caused by inherited characteristics. It covers the following aspects: Variations, Mitosis and meiosis, Monohybrid and dihybrid crosses, sex-linked character, co-dominance and mutation. Genetics is an important topic to learn in this days and age where it's applications are relevant to everyday life (Knipprels, Waarlo and Boersma, 2005). In addition, Venville, Gribble and Donovan (2005) stated that in our modern biotechnological world an understanding of the basic genetics is for effective scientific literacy for future citizens. Many researchers for example Ayodele (2006) and Williams et. al (2011) have shown that students have serious misunderstanding, even after instruction hence students depend on rote learning to pass examination. Despite the effort of some science educator such as Danjuma (2005) and Jibrin and Abba (2011) towards finding a suitable instructional strategy for effective teaching of genetics in secondary school, there still exist some reports of poor academic performance in public examinations result such as NECO and WAEC in Biology (Lakpim, 2007; Ogbenevwele, 2010; Adebayo, 2011).

Ogunniyi (2009) asserted that of the most persistent and compelling problem facing academic achievement in Nigeria is poor quality teaching. Most biology teachers prefer to use methods like chalk or lecture method because science is broad in nature which makes it easier and faster to cover the syllable within the stipulated time. Ayodele (2006) identify the in appropriate or non-effective teaching methodology as a major factor hindering students understanding and achievement in genetics. Several methods are used to teach science, notably among them as viewed by various authorities are: Laboratory, demonstration, lecture, enquiry e.t.c. Agbo (2000) is of the view that science teachers and/or in fact, any other teacher must be acquainted with teaching methods that will assist students to achieve their learning objectives. Agbo mentioned seven specific methods of science instruction to include, lecture, demonstration, questioning, concept mapping, field trips, co-operative learning, project, and laboratory.

Concept mapping is the strategy that help learners organized their cognitive frameworks into powerful interactive patterns. Concept mapping according to John, Igwe, Anaja, Wusle, Istifanus, Christopher, Nuhu, Modebe and Kwaranga (2017) is a graphical representation of ideas, information and knowledge of a topic in a given subject. Is also a schematic device for representing a set of concept meaning embedded in a hierarchical diagram that illustrates the interconnections between and among concepts. It can be deduced that concept map provide a visual road map, showing a pathway a learner can take to construct meaning of concepts.

Demonstration involves showing by reason or proof, explaining or making clear by use of examples or experiment. In teaching through demonstration, students are set up to potentially conceptualized class materials more effectively. Demonstration often occurs when students have a hard time connecting theories to actual practice or when students are unable to understand application of theories. In view of the foregoing, this study will examine the effects of concept-mapping and demonstration on students' achievement in genetics in Jos North, Plateau state.

2. Statement of the Problems

The poor academic achievement of students in biology is of great concern to all stakeholders in the educational sector. WAEC (2013) report that the general performance of students in May/June 2012 WASSCE biology examination was very poor compared to that of 2011. This poor performance has reduced the number of students that qualify for further studies in the science related professional courses such as Medicine, Agriculture, Pharmacy, Nursing and Teaching. The Chief examiners' report from biology theory paper 2 in WAEC 2008 revealed that students did not respond well to question on genetics in the final school certificate examinations. It was reported that the question on genetics was attempted by very few candidates. Furthermore, most of the students that attempted gave wrong responses.

In the teaching of genetics as reported by Odunbummi (2005), Idubuizu (2005) and Ibifiri (2005) that achievement is poor and that it is not unconnected to teaching method such as the use of traditional lecture method. It is in view if this that the researchers decided to carry out a study on the comparative effects of demonstration and co-operative method in the teaching of genetics in secondary schools in Jos North, Plateau state.

3. Research Questions

The following research questions are to guide the researchers in the study:

- What is the level of students' achievement in genetics, using concept-mapping and demonstration method?
- What are the differences between the post-test mean scores of students taught using concept-mapping and demonstration method?
- What difference exist in the post-test mean scores between the male and female students taught genetics using concept-mapping method?

4. Hypotheses

These hypotheses were tested at in the study.

- There will be no statistically significant difference in the post-test mean scores of students taught genetics using concept-mapping and demonstration methods.

6. Results

Research question 1: What is the level of students' achievement in genetics using demonstration method and concept mapping,?

Table 1: Mean (\bar{X}) and Standard Deviation (SD) of Pre-test and Post-test mean scores of students taught genetics using demonstration and concept mapping

Method	N	Pretest		Posttest		Gain Score \bar{X}
		\bar{X}_1	SD ₁	\bar{X}_2	SD ₂	
Demonstration method	20	16.20	3.29	25.00	4.18	8.80
Concept mapping method	20	18.10	4.24	31.50	5.08	13.40

- There will be no statistically significant difference in the post-test mean scores between the male and female students taught genetics using concept-mapping method.

5. Research Methodology

A quasi- experiment design was adopted in this study. It employed a pre-test/ post-test quasi experimental design with the experimental and control group. The pre-test was initially administered to the biology students in the two groups before the treatment with the help of a research assistant. The treatment was administered after teaching the students by the researchers for six weeks. One research instrument called Genetics Achievement Test (GAT) was used for the study .it consists of 50 close ended questions. The 50 questions carry one mark each.

The instrument was prepared using Past, West African Extermination Council (WAEC) over a period of 10 years (2007-2016) to obtain an unbiased result on students' achievement in Genetics. questions.

The population of the study comprises of all the SS2 biology students from all the Senior Secondary Schools in Jos North Local Government Area of Plateau State. The sample used for this study is the intact class of Senior Secondary 2 Biology students from the schools selected.

Table 1 showed that the posttest mean scores of students taught genetics using demonstration and concept mapping method are 25.00 and 31.50 and their standard deviations are 4.18 and 5.00 respectively. Meanwhile the gain mean scores of students taught genetics using demonstration and concept mapping method are 8.80 and 13.40 respectively. These show that students taught genetics using concept mapping achieved better than those taught genetics using the demonstration.

Research Question 2: What are the differences between the post-test mean scores of students taught using concept mapping and demonstration method?

Table 2: Mean (\bar{X}) and Standard Deviation (SD) of students' Pre-test and Post-test mean scores of students taught genetics using concept mapping and demonstration method.

Method	N	Pretest		Posttest		Gain Score \bar{X}
		\bar{X}_1	SD ₁	\bar{X}_2	SD ₂	
Demonstration method	20	16.20	3.29	25.00	4.18	8.80
	20	18.10	4.24	31.50	5.08	13.40
Concept mapping method						

Table 3 revealed that the post-test mean score of 25.00 for students taught genetics using demonstration, while that of students taught genetics using concept mapping is 31.50. The difference between the gain score of students taught genetics using demonstration and concept mapping (13.40 – 8.80) is 4.60. This showed that students taught using concept mapping achieved better than those taught genetics using demonstration method.

Research Question 3: What difference exists in the post-test mean scores between the male and female students taught genetics using concept mapping?

Table 3: Mean (\bar{X}) and Standard Deviation (SD) of Pre-test and Post-test mean scores of male and female students' taught genetics using concept mapping.

Concept mapping	N	Pretest		Posttest		Gain Score \bar{X}
		\bar{X}_1	SD ₁	\bar{X}_2	SD ₂	
Male	8	18.13	5.14	32.88	6.45	14.75
Female	12	18.08	3.79	30.58	3.99	12.50

Table 3 showed that the post-test mean scores of male and female students taught genetics using concept mapping are 32.88 and 30.58 respectively. The difference between the gain mean scores of male and female students taught genetics using concept mapping (14.75 – 12.50) is 2.25. This showed that male students achieved slightly better than female students when taught genetics using concept mapping.

Hypotheses

Hypothesis 1: There will be no statistically significant difference in the post-test mean scores of students taught genetics using concept mapping and demonstration method of teaching.

Table 4: Inferential statistics of students taught using Demonstration and Concept mapping

Method	N	Posttest		Df	t-cal	t-tab	Decision Ho: 1
		\bar{X}_2	SD ₂				
Demonstration method	20	25.00	4.18	38	4.422	2.021	Rejected
Concept mapping	20	31.50	5.08				

The table shows mean scores of students taught genetics using demonstration and concept mapping in which were 25.00 and 31.50 with standard deviation of 4.18 and 5.08 respectively, t-calculated value = 4.422 and t-critical or table value = 2.021 at the 0.05 level of significance. Since t-calculated is greater

than t-tabulated we therefore reject the null hypothesis. Those taught using concept mapping achieved better than those taught using demonstration method.

Hypothesis 2: There will be no statistically significant difference in the post-test mean scores between the male and female students taught genetics using concept mapping.

Table 5: Inferential statistics of Concept mapping effect on gender

Concept-Mapping	N	Posttest \bar{X}_2	SD ₂	Df	t-cal	t-tab	Decision Ho: 3
Male	8	32.88	6.45	18	0.898	1.730	Accepted
Female	12	30.58	3.99				

The table shows mean scores of male and female students taught genetics using concept mapping in which were 32.88 and 30.58 with standard deviation of 6.45 and 3.99 respectively, t-calculated value = 0.898 and t-critical or table value = 1.730 at the 0.05 level of significance. Since t-calculated is less than t-tabulated we therefore accept the null hypothesis; therefore, there is no significant difference between the post-test mean scores of male and female students taught genetics using concept mapping.

7. Discussion

The study showed that there was significant difference between the post-test mean scores of students taught genetics using demonstration and those taught genetics using concept mapping. That is, those taught using concept mapping achieved better than those taught using demonstration method. This is shown in the mean scores of students taught genetics using demonstration and concept mapping in which were 25.00 and 31.50 with standard deviation of 4.18 and 5.08 respectively, t-calculated value = 4.422 and t-critical or table value = 2.021 at the 0.05 level of significance. Since t-calculated is greater than t-tabulated, null hypothesis 1 was therefore rejected. This result is in line with Hall (2002) who stated that concept mapping increases recall of information in instructions in biology subject.

From the study, it was also seen that there was no significant difference between the post-test mean scores of male and female students taught genetics using concept mapping. The posttest mean scores of male and female students taught genetics using concept mapping in which were 32.88 and 30.58 with standard deviation of 6.45

and 3.99 respectively, t-calculated value = 0.898 and t-critical or table value = 1.730 at the 0.05 level of significance. Since t-calculated is less than t-tabulated, the null hypothesis was therefore accepted.

8. Conclusions

Based on the result of this study, the following conclusions were drawn:

- There is a significant difference in the post-test mean scores of students taught genetics using demonstration and those taught using cooperative learning method.
- There is no significant difference between the post-test mean scores of male and female students taught genetics using cooperative learning method.

9. Recommendations

- Biology teachers should adopt the used of concept mapping methods in teaching genetics and other topics in biology.
- Teachers should be train and re-trained on how to effectively use the concept mapping method in the teaching of genetics and biology in general.
- Curriculum planners should incorporate concept mapping methods in the curriculum.
- Authors of Biology textbooks should include concept mapping methods in the books.

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