

6TH GLOBAL RESEARCH CONFERENCE ON AFRICAN DEVELOPMENT POLICIES AND STRATEGIES



**6TH GLOBAL RESEARCH CONFERENCE  
ON AFRICAN DEVELOPMENT POLICIES  
AND STRATEGIES**

African Development in 21st Century:  
*Issues, Challenges & Prospects*

**CONFERENCE  
PROCEEDINGS**

**WEDNESDAY 27TH - THURSDAY 28TH JANUARY, 2021  
SOKOTO STATE UNIVERSITY, NIGERIA**

INTERNATIONAL INSTITUTE FOR POLICY REVIEW AND DEVELOPMENT STRATEGIES



# 6TH GLOBAL RESEARCH CONFERENCE ON AFRICAN DEVELOPMENT POLICIES AND STRATEGIES

## THEME

African Development in 21st Century: Issues, Challenges & Prospects

DATE: 27th - 28th January, 2021

TIME: 10:00 am

## CHIEF HOST

**Prof. Sani Muhammad Dangoggo**

Vice Chancellor,  
Sokoto State University

## LEAD SPEAKER

**Chukwuemeka J. Diji, PhD**

Deputy Vice-Chancellor  
Research, Innovations, Consultancy & Extension  
Kampala International University

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Institute of Public Policy and Administration  
University of Calabar, Nigeria

**Prof. Elizabeth Adebayo**

MAUTECH, Nigeria

**Prof. Agnes Antai**

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**Prof. Thomas Traynor**

Wright State University, USA

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# **6TH GLOBAL RESEARCH CONFERENCE ON AFRICAN DEVELOPMENT POLICIES AND STRATEGIES**

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### **DAY ONE – Wednesday 27th January, 2021**

#### **OPENING SESSION/PLENARY**

Conference Registration	- 8:00am – 9:00am
Opening Prayer/Welcoming Remark	- 9:00am – 9:15am
Institutional Brief/Chairman's Opening Remark	- 9:15am – 9:30am
Research Training	- 9:30am – 12noon
Launch Break/Group Photograph	- 12noon – 1:00pm
Plenary Session	- 1:00pm – 4:00pm
Policy Review Session	- 4:00pm – 5:00pm

### **DAY TWO – Thursday 28th January, 2021**

#### **OPENING SESSION/PLENARY**

Conference Registration	- 8:00am – 9:00am
Opening Prayer/Welcoming Remark	- 9:00am – 9:15am
Institutional Brief/Chairman's Opening Remark	- 9:15am – 9:30am
Research Training	- 9:30am – 12noon
Launch Break/Group Photograph	- 12noon – 1:00pm
Plenary Session	- 1:00pm – 4:00pm
Policy Review Session	- 4:00pm – 5:00pm



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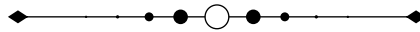
***Book of  
Proceedings***

## Appraisal of Employability Skills of University Undergraduates: The 21st Century Key to Functional Education

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### Abstract

Research evidence revealed that the quality of graduates in Nigeria is on a rapid decline especially in the area of valuable and complementary life skills. Also, researchers have established that subject-specific knowledge and skills alone are unlikely to secure a graduate occupation in which they can be both successful and satisfied. Hence, this study evaluated the extent to which university undergraduates in North West Nigeria possessed employability skills. This study employed a survey research design. The population comprises all 2018/2019 final year university undergraduates in North West Nigeria. Multi-stage sampling approach using Simple Random and Proportional Sampling technique was employed to select 697 respondents from Usmanu Danfodiyo University, 350 respondents from Federal University Gusau and 330 respondents from Federal University Birnin Kebbi. The research instrument was a researcher-developed questionnaire entitled “Employability Indices Questionnaire”. The research instrument was validated by seven experts. The instrument was trial tested on a population that is similar but not among the sampled population; and Cronbach's Alpha was used to estimate a reliability coefficient of 0.82 and 0.96 for Employability Perception Scale and Employability Skills Scale respectively. Three research questions guided the study; while data collected were analyzed using summated scale. The major findings of the study revealed that majority of university undergraduates in North West Nigeria perceived themselves to have high knowledge of employability, yet further finding revealed that majority of the respondents perceived themselves to have high need of Life-long Learning Skill and Team-work Skills. This implies that the respondents have low level of Life-long Learning and Team-work Skills. As such, it was recommended that University Management should improve standard by making Employability Skills a development priority area for its undergraduates before their graduation. Both instruction and assessment of undergraduates should challenge and develop students' Life-long learning skill, Team-work skills and other relevant skills before their graduation. University Management should encourage her students to develop and demonstrate employability skills like Life-long learning skill, Team-work skills, information and communication technology knowledge, numeracy skill, communication skill, creativity and problem solving skills.

**Keywords:** *Employability Skills, Functional Education and University Undergraduates*

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## **Introduction**

Unemployment and under-employment are some of the socio-economic problems that threaten the peace and security of not only the unemployed graduates but Nigeria as a whole. Report from National Bureau of Statistics stated that the total graduates' unemployment rate in Nigeria rose from 10.4% in 2015 to 14.2% in 2016, and from 18.8% in 2017 to 23.1% in 2018. Also, according to Iweala (2014), 1.8 million Nigerians enter the job market yearly. This implies that the number of people that enter the job market continue to increase on a yearly basis. This alarming social problem is a concern to these researchers because of its social and economic implications. Unemployment is a situation where by a person that is willing and able to work has no work that he is capable of doing available to him/her. As the maxim goes, 'An idle mind is the Devil's workshop'. Idle situation has leded the youths into criminal activities like Theft, Armed Robbery, Banditry, Cultism, Terrorism, Prostitution etc. As such, the need to emphasis employability skills in order to boast graduates employment opportunities and to correct the ravaging unemployment pandemics.

Furthermore, Akinyemi, Ofem, and Ikuenomore (2012), affirmed that employers generally see a graduate's achievements related to the discipline as necessary but not sufficient for them to be recruited. Some employment has little or nothing to do with the actual subject discipline, instead demands other achievement (soft skills) for job fulfillment. Unfortunately, most graduates and prospective graduates are unaware of this development. They lack knowledge and orientation of the world of work, and the expectation of the employers. As such, they rely on their academic achievement at the expense of every other skill necessary for a successful life. Hence, the need for employability study

Also, with the outbreak of COVID-19 Virus in countries around the world including Nigeria, Part of the country's strategies to contain the spread of the virus was the ordering of all schools and other educational institutions of higher learning to shut down and allow students to go home. This is to ensure social distance, as COVID-19 was declared a global pandemic by the World Health Organisation. The period of this pandemic prolonged that academic activities like lecture, seminar, conference, meeting etc resumed online through Zoom; this demands the knowledge of information and communication technology and internet services.

Therefore, the 21<sup>st</sup> century jobs demand more than paper qualification. Prospective employees need to possess and demonstrate some physical, social and emotional skills in addition to their intellectual ability. These skills are called employability, core or soft skills. Core skills build upon and strengthen those developed through basic education, they include reading and writing, the technical skills needed to perform specific duties, and professional/personal attributes such as honesty, reliability, punctuality, attendance and loyalty. Core work skills are very important to labour market prospects because employers are seeking recruits that are job ready, not just those with the technical skills. It will enable the employees to respond quickly, reducing the time taken for a product to be conceptualized, manufactured, distributed and sold ILO document (2013). Therefore, it is against this background that this study evaluated the employability skills of university undergraduates in North West Nigeria.

### **Functional Education**

Education is generally accepted as the most powerful weapon that is capable to change the world. According to Jekayinfa (2005), education was intended to be a gradual process of induction into the society and a preparation for adult life and responsibility. However, Most West African countries and Nigeria in particular are characterized with insecurity caused by poverty, ignorant, corruption, unemployment etc. it is only through education that these problems can be solve. In the words of Wasagu 2016, "Education cannot solve all human problems but without education no problem will be solve". Education is a basic requirement for the building of society as it helps to eliminate hunger, poverty, diseases and ignorance (Nwaugo 2015). Education tends to raise the quality of life, improve health and productivity, increase an individual's access to paid employment and facilitates social and political participation (Abubakar, Musa and Atsua, 2013). Therefore, one could deduced that education transforms the life of a man, gives him great revelation and brings him out of ignorance which is the number one killer disease.

To achieve these benefits of education, education must be functional; it must be seen beyond the ability to read, write and passing of examination. Functional education is a kind of education that makes its recipient to be economical independent, self-reliant and gainfully occupied. It enables learners to grow thinking habit, develop technical skills and other competencies for solving everyday problems. More so, Society also needed functional education in order to maintain and improve economic performance, increase prosperity, and eradicate poverty and diseases. The United Nations international children's emergency fund (UNICEF, 2000) gave a broad definition of quality/functional education as an education involving learners, content, process, environments and outcomes as:

1. *Learners* who are healthy, well - nourished and ready to participate and learn, and supported in learning by their families.
2. *Environments* that are healthy, safe, protective, gender sensitive, and provide adequate resources and facilities.
3. *Content* that is reflected in relevant curricula and materials for acquisition of basic skills, especially in the areas of literacy, numeracy and skills for life, and knowledge in such areas as gender, health, nutrition, HIV/AIDS prevention and peace.
4. *Process* through which trained teachers use child – centered teaching approach in well – managed classrooms, and schools, and skillful assessment to facilitates learning and disparities.
5. *Outcomes* that encompass knowledge, skills, and attitudes, linked to national goals for education and positive participation in society. This definition permits for a holistic understanding of quality education as a complex system that is rooted in a political, cultural and economic context both locally and internationally.

However, the question is 'to what extent do schools and society observe these conditions? Your answers are as good as mine. But my stand is that any institution that objectively observes the above conditions of a functional education as stated by UNICEF is sure to produce the competent, productive, employable and competitive work force desired as it has been established that the end result of education is not just knowledge but action. Therefore, access

to functional education avails citizens of any nation the requisite tools to bring about national development as it emphasizes competence, right attitude and skill proficiency. Hence, this study presents employability skills as the 21 Century key of functional education.

Education in Nigeria is majorly divided into three levels; the primary, secondary and the tertiary education. The primary education serves as the foundational level of all other education by providing children a sound preparatory ground for further education. The objectives of primary education as stipulated in the National Policy on Education are raising morally upright individuals, capable of independent thinking and providing learners with manipulative skills to enable them contribute to the nation's development. The post primary/basic education should in addition to the primary education objectives provide job-specific entrepreneurial, technical and vocational skills for self-reliance. While tertiary institution is expected to build on the above skills, to bring students to the highest level of knowledge and competence as well as the mandate to award the highest academic degree in education. University education should support students to develop a range of knowledge, skills, attributes and attitudes which will enable them to be successful not just in employment but in life. This can be achieved by making the components of employability explicit to students to support their lifelong learning, given appropriate environment, pedagogy and resources (human and material). However, research has affirmed that even though the Universities objectives encompasses employability development as one of its mandates, yet only limited skill training is practiced in most Nigeria Universities. As such, the need for employability study.

### **Employability Skills**

According to Yorke and Knight (2006), employability is defined as a set of achievements (skills, understandings and personal attributes) that makes individuals more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy. Employability is the ability of graduates to possess and exhibit the knowledge skills attributes and attitudes needed to attain and maintain job in which they can be successful and fulfilled (Pitan 2016). It is about the capability to function successfully in a role and be able to move between occupations, thus remaining employable throughout their life. In essence, the emphasis is on developing critical reflective abilities, with a view to empowering and enhancing the learner or (Harvey, 2003).

More so, the ILO defined employability skills as the skills, knowledge and competencies that enhance an individual's ability to secure and retain a job, progress at work and cope with change, secure another job if he/she so wishes or has been laid off and enter more easily into the labour market at different period of the life cycle. Skills have become increasingly important in the globalized world. Vocational and technical skills are essential, but employers are seeking for applicants with more. They want employees who can continue to learn and adapt; read, write and compute competently, listen and communicate effectively, think creatively, solve problems independently, manage themselves at work, interact with co-workers, work in teams or groups, handle basic technology, lead effectively as well as follow supervision (Brewer 2013). This emphasis has necessitated further studies as employers of



labour are not only concerned about those having higher education but practical and generic skills appropriate for job fulfillment (Akinyemi et al 2012).

According to the ILO (2013) Review, the core skills that individuals need to be successful in attaining, retaining and advancing in employment are categorized under four broad headings namely: learning to learn, communication, teamwork and problem-solving. These are skills which support an employees' ability to perform in the work place. They are learned in one context, and could be applied and further developed in other contexts and roles. For the purpose of this study, only the teamwork and learning to learn skills will be investigated.

**Teamwork:** This is the ability to operate smoothly and efficiently within a group. It is the ability to compromise and ignore one's own ego; as well as the ability of interpersonal communication skills such as negotiation, influence, advising and interpreting. Teamwork is a high priority for most employers; it is very essential for an individual to possess the ability to be able to work well with colleagues. It requires cooperation and leadership in terms of organizing groups to accomplish a purpose, and helping others to do things their own way. An individual who possess this skill will also possess the ability to encourage and inspire others team members to perform better. It is also about following orders, respecting leadership and knowing how to communicate concern and position.

Teamwork skill involve respecting others, co-operating, contributing to discussions, and awareness of interdependence with others. It entails that a prospective graduate should possess excellent verbal communication skills, to be able to put across his own idea confidently and politely. A successful team work demands the ability to respect alternative view-points bearing in mind that people you are working with has come from different physical and psychological environment. Hence the need for persuasion and negotiate over any important issue. Team work also involves the ability to accept and learn from constructive criticism and ability to give others positive constructive criticisms. To build this skill, one may opt for group project works. Contributing to a team sport, society, dance, drama or music band; volunteering for committee work both in the university society and beyond.

**Learning to learn:** learning to learn is about acquiring the knowledge, skills, attitude and aptitudes; which enable individuals to set, plan and reach their own learning goals and become independent autonomous learners (ILO, 2013). Learning to learn allows young people to meet the demands of lifelong learning. This implies that, not only that individuals gain certain skills but also they become self-directed learners and rely on their own learning capacities. As such, learning to learn strategies are about learning what you know, learning what you do not know, and learning what to do about it. These skills will enable one to take more responsibility for his/her own learning, spend one's time effectively and stay on task; select the best approach(s) for each task, provide the knowledge and skills needed to begin, follow through and complete tasks. Lifelong learning is a must for workers; it is a key element to being successful.

These core skills for employability are both important to employers' recruitment and enhance an individual's ability to secure a job, retain employment and move flexibly in the labour



market as well as engage in lifelong learning. Since developing better learning strategies takes time and requires training opportunities; companies are looking for knowledgeable workers who take responsibility for their own professional development.

**The objectives of this study were to:**

- i. Evaluate employability perception of university undergraduates;
- ii. Examine the extent at which university undergraduates in North West Nigeria possess the skill of life-long learning (Learning to Learn Skill);
- iii. Investigate the extent to which the university undergraduates demonstrate ability to work in team;

**Research Questions**

To achieve the above mentioned objectives, the following research questions were generated to guide the study:

- i. To what extent do university undergraduates perceive themselves as employable?
- ii. To what extent do university undergraduates in North West Nigeria possess life-long learning skills?
- iii. To what extent do university undergraduates possess skill of engaging in team-work?

**Method**

The research design for this study is the Survey research design. The population comprises of all university undergraduates in North West Nigeria. There are seven states in North West Nigeria, which are Kaduna, Kano, Katsina, Kebbi, Jigawa, Sokoto, Zamfara. The target population consists of all 2018/2019 final year undergraduates in the selected States in the zone. Multi-stage sampling approach was employed to select the sample for this study. *Stage one* was selection of states, Simple Random Sampling Technique was used to draw three states out of the seven states in North West Nigeria; the states selected are Kebbi State, Sokoto State and Zamfara State. *Stage two* was selection of institutions; Purposive Sampling Technique was used to select Federal Universities in the selected states in North West Nigeria. The universities are; Usmanu Danfodiyo University Sokoto, Federal University Gusau and Federal University Birnin Kebbi. This was to ensure the homogeneity of variance of the Participants. *Stage three* was selection of subjects, proportionate sampling technique was used to select 1334 final year undergraduates (participants) from the selected Universities as guided by (Research Advisor, 2006).

The instrument that was used for data collection in this study was a researcher-developed questionnaire entitled “Employability Indices Questionnaire” (EIQ). The instrument consists of two sections, namely; section A and B. Section A contains 20 items that elicits information about undergraduates' self-perception of employability. The response patterns for the items in this scale are: Not at All -0 point, A Little - 1point, Fairly Detailed – 2 point and Very Detailed – 3 points. Section B consists of items that elicit information on participants' teamwork and life-long learning skills. The response patterns are: Not True of Me -0 point, Somewhat True of Me - 1point and Very True of Me – 2 points. In order to ascertain the validity of the

instrument, the questionnaire was given to seven experts in the field of educational research, measurement and evaluation and other lecturers in the department of social sciences education university of Ilorin. After which the researcher modify the items in line with experts' comments and advice. In order to establish the reliability of the instrument; the instrument was trial tested on a population that is similar but not among the sampled population; and Cronbach Alpha was used to obtain a reliability coefficients of 0.82 for the employability perception scale, and 0.73 for the employability skills scale.

## Result

**Research Question 1:** To what extent do university undergraduates perceive themselves as employable?

The results of this section were classified into three categories namely; low, fair and high. The minimum score a respondent can obtain was zero (0) and the maximum score he or she can obtain is 60 points. 60 divided by three, is equal to 20. Therefore, 0 to 20 = low level, 21 to 40 = Fair, while 41 to 60 = High Level.

**Table 1:** Summary Result of Respondents' Employability Perception Scale

Employability Level	Score Range	Frequencies	Percentage (%)
Low	0 – 20	3	0.2
Fair	21 – 40	299	22.4
High	41 – 60	1032	77.4
Total		1334	100

Table 1 shows that 3(0.2%) respondents perceived themselves to have low knowledge of employability, 299(22.4%) respondents perceived themselves to have fair knowledge of employability while 1032 (77.4%) of the respondents perceived themselves to have high knowledge of employability. As such, majority of the respondents perceived themselves to have high knowledge of employability.

**Research Question 2:** To what extent do university undergraduates in North West Nigeria possess life-long learning skills?

The result of life-long learning skills was obtained from nine items that elicits information on students' perceived need for life-long learning skill. The level at which respondents perceived themselves to be in need of this skill was graded into three levels namely; high, moderate and low levels. High level implies that the skill concerned should be made a development priority. Moderate level means that the skill concerned need attention or improvement while low level means an area of strength for the concerned respondents.

**Table 2:** Summary Result of Respondents' Life-long learning Skill

Communication Levels	Score Range	Frequency	Percentage (%)
High	13 – 18	926	69.4
Moderate	7 – 12	350	26.3
Low	0 – 6	58	4.3
Total		1334	100

Table 2 indicates that 926(69.4%) of the respondents perceived themselves to have high need of life-long learning skill, 350(26.3%) perceived themselves to have moderate need of life-long learning skill while 58(4.3%) perceived themselves to have low need of life-long learning skill. This implies that majority of the respondents in this study perceived themselves to have high need of life-long learning skills. Hence, majority of the respondents have low life-long learning skills.

**Research question 3:** To what extent do university undergraduates possess skill of engaging in team-work?

**Table 3:** Summary Result of Respondents' Team-work Skill

Problem Solving Levels	Score Range	Frequency	Percentage (%)
High	25 – 36	872	65.4
Moderate	13 – 24	360	27.0
Low	0 – 12	102	7.6
Total		1334	100

Table 3 indicates that 872(65.4%) of the respondents perceived themselves to have high need of team-work skills, 360(27.0%) perceived themselves to have moderate need of team-work skills, while 102(7.6%) perceived themselves to have low need of team-work skills. This result also showed that majority of the respondents have high need of team-work skills, which implies that majority of the respondents have low team-work skills.

### Discussion of the Findings

The first major findings of this study revealed that majority of the respondents (1032) representing 77.4% of the respondents perceived themselves to have high knowledge of employability. This finding confirmed the survey of Sodipo (2010), who found that all the respondents (employers of labour) disagreed that the graduates' knowledge in their area of specialization is outdated. This means that they have the knowledge but the practice, which is at the application level, and a higher order domain is not sufficient.

The second findings of this study indicate that majority (69.4%) of the respondents perceived themselves to have high need of lifelong learning skill. This finding confirmed the assertion of Sodipo (2014) who affirmed that classroom teaching mostly focused on concepts and not marketable skills. It also supported the finding of Owolabi (2018) who asserted that the Nigeria school system is examination driven; an act which has affected the extent to which other beneficial skills, competencies and abilities receive attention. However, this finding

disagree with the findings of Koloba (2017) who found that majority of university students in South Africa regard themselves as possessing employability skills.

Further finding revealed that majority (65.4%) of the respondents perceive that they have high need of team-work skill. This finding contradicted the report of Adedapo, et al (2016), on the perceived preparedness of students of architecture for the job market. Their finding revealed that they are best prepared for team-work and self-motivation. While Sodipo (2010) found that 30% of the respondents rated tertiary education graduates employed in Ogun State Civil Service between 2004 and 2006 good in organisational and interpersonal skills. This report implies that 70% of the respondents rated tertiary education graduates poor in these skills.

### **Conclusion**

Based on the findings of this study, it was concluded that university undergraduates in North West Nigeria have high need of life-long learning and team-work skills. Also, University undergraduates' in North West Nigeria have high knowledge of the concept of employability as was evidenced by the participants' high level of employability perception. As such, it was recommended that University Management should improve standard by making Employability Skills a development priority area for its undergraduates before their graduation. Both instruction and assessment of undergraduates should challenge and develop students' Life-long learning skill, Team-work skills and other relevant skills before their graduation. University Management should encourage undergraduates to develop and demonstrate employability skills like Life-long learning skill, Team-work skills, information and communication technology knowledge, numeracy skill, communication skill, creativity and problem solving skills.

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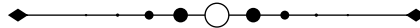
## **Entrepreneurship Education: A Panacea for Job Creation and Sustainable Development in Nigeria**

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### **Abstract**

**T**he main task of entrepreneurship education is to prepare young people to enter the labor market, as well as to develop a sense of initiative and entrepreneurial skills among them. Therefore, it is important how national education systems adapt to changing skill requirements within a globalized economy. This study examines Entrepreneurship Education as a Panacea for Job Creation and Sustainable Development in Nigeria. Human capital theory (HCT) and Risk taking theory (RTT) guided the study. Among other concern areas examined in this study include; literature review, concept of entrepreneurship, basic aspects of an entrepreneur, entrepreneurship education and job creation, brief history of entrepreneurship, benefits of Entrepreneurship for sustainable development, contribution of entrepreneur in development of Nigeria economy, challenges and possible solutions and conclusion was drawn. It was however, recommended that the government should give adequate attention to entrepreneurial development in the country through the provision of good economic environment to encourage individual participation in business while this is guaranteed entrepreneurship will thrive and consequently improve economic growth.

**Keywords:** *Entrepreneurship, Education, Job creation, Sustainable Development*

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## **Introduction**

In tackling the global crisis of unemployment, policy makers and stakeholders in developed countries such as England, USA, and Germany, advocated a refocus of educational systems towards acquisition of vocational and technical skills to enhance smooth transition into jobs for school leavers particularly graduates of universities. This owes to the fact that education is important to the development of any society particularly because the goals of wealth creation, poverty reduction and value re-orientation can only be attained and sustained through an efficient educational system which impacts relevant skills, knowledge, capacities, attitudes and values into individuals.

Entrepreneurship education plays a significant role in changing students' view towards becoming self-employed. This is because entrepreneurship education is meant to train students upon graduation to become self-reliant and employers of labour through creative and innovative thinking in identifying new business opportunities such as test prep coach, skills development center, online courses, employee training, online English teacher, etc., which transcends into job creation and sustainable development.

The challenge of national sustainable development in Nigeria cuts across all areas of life. That is why it is impossible to identify an academic field that is not adequately represented in the ever-expanding league of unemployed youths/graduates. The youth unemployment problem has generated several other national economic problems, such as the issue of Boko Haram (sectarian crisis in the North), Niger Delta militancy, political thuggery among youths, increased rate of kidnapping, and armed robbery is all traceable to youth unemployment. The situation of unemployment in Nigeria is indeed alarming (Ogunsola, 2009). Several thousands of employable youths are roaming the streets. This is so because, while the universities and other tertiary institutions keep producing graduates on yearly bases, there are no new jobs or vacancies to absorb these new job seekers.

It is against this background that the federal government of Nigeria through the Federal Ministry of Education introduced entrepreneurship education in tertiary institutions such as venture creation and growth aimed at equipping students with entrepreneurial skills, attitudes and competencies in order to become self-employed, job providers (employers of labour) not just job seekers after graduation. Entrepreneurship education therefore, is the type of education designed to change the orientation and attitude of the recipients and the process will equip them with the skills and knowledge to enable them start and manage a business of their choice.

## **Literature Review**

A plethora of literature relevant to this current study is review thus; Onah (2006), examined that the entrepreneurship education needs of self-employed artisans and craftsmen in the urban area of Enugu state, Nigeria. The questionnaire was distributed among 600 artisans and craftsmen. The study used both the mean scores and two-way analysis of variance (ANOVA). The result shows that the entrepreneurial skills that are comprised of management skills, accounting skills, public relation skills, marketing skills, Communication skills and record

keeping skills explained significant part of the success achieved by the craftsmen and artisans. Mania (2013) examines the role of entrepreneurship education on job creation in Nigeria. The author concludes that entrepreneurship is primarily learned by experience and discovery. The study further States that entrepreneurial learning should be conceived as a lifelong process, where knowledge is continuously shaped and revised as new experience take place. Conversely, Agu and Chiaha (2013) investigate the impact of entrepreneurship education on the employability of university graduates in Nigeria. The sample size consists of 320 respondents. The study concludes that entrepreneurship education enables graduates possess employability skills.

Akhuemoukhan, Raimi and Sofoluwe (2013), examine the impact of entrepreneurship education on employment generation in Nigeria. They employed an econometric analysis using a secondary quantitative data to draw conclusion. The study discovered that entrepreneurship is well-developed it would be an effective tool for poverty reduction, employment generation, fast-track the realization of universal primary education and promoting gender equality. In addition, Anam, Iba and Aregbe (2014), examine the impact of entrepreneurial education on Productive employment and sustainable poverty reduction in Cross River State using 60 beneficiaries of the Central Bank of Nigeria Entrepreneurial Development Center in Calabar. The findings established that there is a significant relationship between entrepreneurial education and employment creation as well as poverty reduction in the state.

Daku and Oyekan (2014), suggests various education and youth support programs in terms of skills, attitudes and capacities to establish business outfits for self-employment in Nigeria. The authors suggest the needs to produce well-trained tutor; provide a healthy workplace and environment; develop the required political will; and enlighten parents and children on the relevance of the planned education system. In addition, youths should be supported in establishing new businesses and also be educated from time to time so as to staya float in business. This will however energize the economy as it brings new ideas to life through innovations, resourcefulness and the aspiration to build something of life-long significance.

Furthermore, Okoro (2014), examined the impact of entrepreneurship education on the enhancement of entrepreneurial skills among undergraduates' students in South-Eastern universities, Nigeria Using the descriptive survey design; the findings revealed that entrepreneurship education curriculum has significant impact on entrepreneurial skills in undergraduates. It further shows that there is poor utilization of entrepreneurship education pedagogies in the teaching of entrepreneurship education in the region. Onuma (2016), examined the importance of exposing under-graduates' students to entrepreneurial education on the ability to create job after graduation using 200 final year students from Ebonyi State University. The findings showed that entrepreneurial education is relevant to students as it equipped them with skills for post-graduation job creation ability rather than job seekers.



### **Theoretical Framework**

This study has its theoretical foundations on the following theories.

**Human Capital Theory (HCT):** The human capital theory advocates education as a tool for improving human capital, stimulating labour productivity and boosting the levels of technology across the globe (Robert, 1991). Human capital theorists encourage investment in nation's workforce (people working with public and private sector organizations) because expenditure on training and development is a productive investment like investment on physical assets (Olaniyan and Okemakinde, 2008). Besides, human capital enhancement through quality education is a critical factor that propels economic growth and sustainable development in East Africa, Hong Kong, Korea, Singapore and Taiwan (Olaniyan and Okemakinde, 2008).

**Risk Taking Theory (RTT):** Another theory that supports entrepreneurship education is the risk-taking theory of Richard Cantillon and John Stuart Mill. The theory perceives entrepreneurship as a mental education that stimulates individuals to take calculated risk for which future stream of benefits are guaranteed and people taking big risk have to contend with a great responsibility (Alam and Hossan, 2003). The summary of the theory is that entrepreneurship education improves the ability, capability and potentials of individuals to undertake risks for which economic benefits are ensured.

### **Concept of Entrepreneurship**

Entrepreneurship has been defined variously by different authors. The concept is seen as the dynamic process of creating wealth by individuals who assume the risks involved in providing value for some products and/or services (Kuratko, 2009), "the process of performing the roles of planning, operating and assuming the risk of a business venture," (Inegbenebor and Igbinomwanhia, 2010); "the pursuit of lucrative opportunities by enterprising individuals... (being) inherently about innovation - creating a new venture where one didn't exist before," (Bateman & Snell, 2011); the process of creating value through the provision of some products or services for the benefit of the society, while learning the skills needed to assume the risk of establishing a business (Inegbenebor, 2006). According to Usman, et al., (2006) entrepreneurship is defined as "the willingness and ability of an individual or group of persons to search for investment opportunities, to establish and run a business unit successfully. However, to Omolayo (2006), entrepreneurship is the act of starting a company, arranging business deals and taking risks in order to make profit through the education and skills acquired. From the above definitions, it is clear that the concept of entrepreneurship development is a process which could be considered to begin with knowledge and skill accumulation to sufficiently predispose the individual learner to entrepreneurial pursuit. This, of course, is the focus of this paper to establish the link between entrepreneurial education, job creation and sustainable development in Nigeria.

### **Concept of Entrepreneurial skills**

This has been the subject of discussion, unlike other important economic skills, entrepreneurial skills are not related to a specific occupation, qualification or discipline. Entrepreneurial skills is the ability to have self-belief, boldness, tenacity, empathy, readiness to

take expert advice, desire for immediate result, visionary and ability to recognize opportunity (Salgado-banda 2005). For an entrepreneurial to be successful, these are some skills he has to acquire such as willingness to take risk, perseverance, and ability to work under pressure, ability to initiate, take responsibilities and make decisions. Also, other skills are innovative and creative thinker, self-motivated and disciplined, able to research effectively, financial literacy which means having financial skills such as calculating tax, able to plan, coordinate and organize effectively, management skills like ability to manage time and resources successfully. A critical look at the goal of education on African development in 21<sup>st</sup> century will show a positive relationship that each of the entrepreneurial skills listed above are embedded in them and these entrepreneurial that skills may not be efficiently acquired without the effective knowledge of education. As mention by Albert Einstein “your skills and knowledge is better than the things you kwon”.

### **Basic Aspects of an Entrepreneur**

According to Oguntime and Nwosu (2014); regardless of the field, there are four basic aspects of being an entrepreneur:

1. Entrepreneurship involves creation process, creating something new in terms of value; value to the entrepreneur and value to the audience for which it is developed. The audience could be the market of buyers in the case of business innovations; prospective students in the case of new course, or the constituency for a new service provided by a non-profit agency.
2. Entrepreneurship requires the devotion of the necessary time and efforts.
3. Assuming the necessary risks in entrepreneurship, with particular reference to financial, psychological and social areas.
4. Rewards of being an entrepreneur, with regards to independence, personal satisfaction and monetary rewards. Entrepreneurship education has the inherent ability to create a change in the mental orientation form the “take-job-syndrome” to the “make-job-syndrome” mentality because it is a carefully organized process that leads to the acquisition of entrepreneurial competences through the teaching of entrepreneurship courses, training and giving certificate for education, economic developers, business counselors and prospective entrepreneurs. The knowledge so gained will enhance the ability to set up a gainfully productive business for self-employment as against being employed. It is about willingness and ability of individual to find out investment

Opportunities ready to bear attendant risk(s) in order to have successful enterprises. Entrepreneurship education should be fashioned in such a way to encourage everybody generally and youths in particular by equipping them with entrepreneurial approaches.

### **Entrepreneurship Education**

Entrepreneurship education is a learning process, starting as early as elementary school and progressing through all levels of education. A broader definition of entrepreneurship education was provided by Obinna (2014), as the process through which individuals acquire a broad set of competencies that can produce greater social and economic benefits to the individuals. According to Enu (2012), Entrepreneurship education is a form of education that

seeks to provide knowledge, skills, attitude and motivation to students for entrepreneurial success in any facet of human endeavours. He further argues that entrepreneurship education equips individuals with the ability to seek investment opportunities and maximize returns from those investments.

Entrepreneurship, according to Omolayo (2006), is the act of starting a company, arranging business deals and taking risks in order to make a profit through the education skills acquired. Another view of entrepreneurship education is that, the term given to someone who has innovative ideas and transforms them to profitable activities. To him, entrepreneurship can be described as “the process of bringing together creative and innovative ideas and coupling these with management and organizational skills in order to combine people, money and resources to meet an identified need and create wealth. In the same vein, Nwangwu (2007), opined that entrepreneurship is a process of bringing together the factors of production, which include land, labour and capital so as to provide a product or service for public consumption. However, the operational definition of entrepreneurship is the willingness and ability of a person or persons to acquire educational skills to explore and exploit investment opportunities, establish and manage a successful business enterprise.

### **Entrepreneurship Education and job Creation**

Entrepreneurship education according to Paul (2005) is structured to achieve the following objectives. These objectives transcend into job creation for sustainable development.

1. To offer functional education for the youth that will enable them to be self-employed and self-reliant.
2. Provide the youth graduates with adequate training that will enable them to be creative and innovative in identifying novel business opportunities.
3. To serve as a catalyst for economic growth and development.
4. Offer tertiary institution graduates with adequate training in risk management, to make certain bearing feasible.
5. To reduce high rule of poverty.
6. Create employment generation.
7. Reduction in rural-urban migration.
8. Provide the young graduates with enough training and support that will enable them to establish a career in small and medium sized businesses.
9. To inculcate the spirit of perseverance in the youths and adults which will enable them to persist in any business venture they embark on.
10. Create smooth transition from traditional to a modern industrial economy.

### **Nigerian History of Entrepreneurship**

Entrepreneurship is a multidimensional term that has continued to challenge scholars on its definition (Caree and Thurik, 2005). The term “Entrepreneur” can be traced to the early 18th century where French economist “Richard Centillon” is credited to have introduced the term. According British Journal of Education to the publication titled “Essai Sur la Nature du Commerce en General” an entrepreneur is any agent who procures methods of production at certain prices with a view to combining them to produce new products (Rusu, Isacs, Cureteanu and Csorba, 2012).

Scholars opine that at the introduction of the entrepreneurship concept saw majority of scholars assuming that it had particular features and needed extraordinary abilities of exceptional individuals. The term was later improved through the differentiation between investor and entrepreneur by identifying the variations between their expectations with regards to the action taken. This phase was championed by “Jean Baptist” who defined an entrepreneur as an individual that moves economic raw materials out of a region which lower to a region of higher production and improved results (Yomere, in Oguntime and Nwosu 2012). In America, scholars highlight that during the early days, “academic field of entrepreneurship has evolved dramatically over the last 35 years” (Kurato, 2009; Ogedengbe et.al, 2013). In the case of Nigeria, the entrepreneurial expertise of prominent individuals was adequately identified as such, entrepreneurial personalities during the pre-colonial era such as “Governor Nana Oloma of Iteskiri”, Eyo Honesty, “King Jaja of Opobo” in today's Delta, Calabar and Rivers state respectively controlled the business activities (Ogunremi and Faluyi, 1996). Their activities as a consequence led to the formation of the African Association which was to be later called the United African Company (UAC) in 1929. Over the years numerous successful Entrepreneurs have emerged in Nigeria such as Mike Adenuga, Femi Otedola, Frank Nneji, Folorunsho Alakija, Isaac Durojaiye, Oba Otudeko as well as Jim Oviah to mention but a few. Nevertheless, while there have been successful entrepreneurial ventures in the country and improvements in the ideologies and practice of entrepreneurship there continues to remain the obstacle of successfully instructing entrepreneurship.

### **Benefits of Entrepreneurship Education**

Entrepreneurship Education is aimed at creating awareness in the youths and motivating them towards self- employment through the development of personal skills, Competencies, effectiveness and aptitude using project-based work in an economic setting to setup and manage small and medium enterprises successfully (NBTE, 2004). Any country that introduces entrepreneurship education in its curriculum is said to benefit in the following ways:

1. Entrepreneurship Education stands to foster entrepreneurial mindset, skills and behavior among the recipients of the training thereby, making them to be useful citizens of the country.
2. Entrepreneurship Education also empowers the students/ youths with the competencies and skills necessary to prepare them to respond to their life needs, including running their own business so that they can be productive citizens of their respective countries.
3. It develops in the youth's innovative culture and develops their skills to identify, create initiate and successfully manage personal, community, business and work opportunities.
4. To identify and stimulate entrepreneurial drive, talent and skills to undo the risk adverse bias of several analytical techniques and, to devise attitudes towards change
5. To increase the awareness and understanding of the process involved in initiating and managing new ventures as well as to enhance learners of small business ownership as serious career option.
6. It focuses on developing understanding and capacity for pursuit of entrepreneurship

behaviour, skills and attributes in widely different contexts. Thus, the graduates of various disciplines can be taught entrepreneurship to foster their interest in enterprise development as a way of reducing graduate unemployment and increasing future graduate entrepreneurs.

7. Entrepreneurship Education is seen as a strategy/instrument in channeling of university graduates away from paid employment into self-employment. Entrepreneurial skills and attitudes acquired through Entrepreneurship Education provide benefits to the society even beyond their application to business activities.

### **Educational for Sustainable Development**

Education for Sustainable Development is the focus or projection of education that seeks to equip people towards creating a sustainable future. Stakeholders such as government, businesses, educational institutions, media, and organizations play important roles in achieving sustainable development. Each of these sectors has a different vision of sustainable development. Some are interested in environmental preservation and protection; some have economic development interests while others may be more interested in social development. According to UNESCO (2000) the way each nation, cultural group and individual views sustainable development will depend on its own values. In many European nations, Universities and technical colleges trained students of science, economics and business management in skills that help to build more sustainable societies. Programs such as Peace Education, Human Right Education, and Environmental Education and “Youth Entrepreneur” schemes are carried out in many schools. Hence, such initiatives help students and teachers to gain an understanding of the inter-linkages needed for sustainable development. The emphasis has been on education that will provide life and occupational skills that will enhance the potentials of individual, reinforcing self-sufficiency and improving quality of life.

### **Entrepreneurship Education and Sustainable Development in Nigeria**

The Nigerian government seems to have woken up to the reality that the country needs to break away from the vicious cycle of poverty, infrastructural neglect, corruption and other social problems. The reason being that, after 45 years of achieving colonial independence, it cannot be argued that Nigeria has attained her optimum level of development. According to Kolawole and Omolayo (2006), many individuals have difficulties in translating their business ideas to realities and creating new business ventures because of lack of necessary information and skills needed to achieve their targets. To him, the university curriculum was in the past oriented towards making graduates suitable only for white collar jobs. This underscores why millions of our youths and a lot of university graduates roam about the streets of the major cities and towns in search of white-collar jobs. It is necessary and possible to position Nigerian universities to stimulate economic growth through a deliberate agenda of production of entrepreneurial graduates. In many countries, including US, high schools offer entrepreneurship education for life-long trade. And many of them offer courses that enable students to meet their general academic requirement while learning a trade. However, because of the recent challenges in world economy many schools have shifted emphasis to training in computers, information technology, and related fields. Public schools work closely with



willing industries to establish curriculum and programs to meet their skill demand. Where is Nigeria in this history of entrepreneurship education? While career education has continued to thrive in many societies, it is unfortunately an area that is neglected in Nigeria. That is why things are not working as they should in Nigeria.

The neglect of entrepreneurship education is robbing the nation of the contribution their graduates would make on the economy; the graduates could establish but roam the streets. It is, therefore socially injurious to neglect this important area or look down on its graduates. The society needs competent auto mechanics and truck drivers, carpenters, plumbers, electricians, electronics and computers, database, web and network technicians, book-keepers, and clerks, medical technicians and nursing assistants, (and other personnel in this category) to function well. These are some of the skills in short supply in Nigeria. The half-baked roadside mechanics in the society often cause more dangers to vehicles when they are contracted to service them. And because of poor training some of the commercial drivers on the road and nurses' assistants in the hospitals have sent many people to their early death. Given these facts, it is a disservice to the society to neglect entrepreneurship education. In Nigeria, graduates of vocational and technical institutions are highly skilled entrepreneurs, but the society does not seem to encourage the youths to take this role. Unfortunately, those who influence education policy in the society (legislators, educators, the media, and etc.) disappear to feel that graduates of technical vocational institutions are not equal to university graduates; hence there is need for effective strategies for entrepreneurship education in Nigeria.

### **Contribution of Entrepreneurship in Developing Nigerian Economy**

The overriding attribute of a developing economy is poverty and the inability to provide for the basic needs of the population. Other characteristics of such economy are: low average real income and a low growth rate of per capital income, low level of technology, low level of productivity, low life expectancy, and inadequate health services among others (Inegbenebor and Igbinomwanhia, 2010). In this kind of economy, catering satisfactorily for the economic, social and other basic needs of the population is a dire challenge. Entrepreneurship which can be described as a process of planning, operating and assuming the risk of a business venture plays critical roles in economic development.

According to Inegbenebor and Igbinomwanhia (2010), the **role of entrepreneurship** in a developing society is presented as follows:

**Employment generation:** Unemployment is a major problem facing all nations of the world and solving this problem that has become endemic is the quest of all nations. Entrepreneurship has remained the most important tool for solving them. Those, who take to entrepreneurship immediately, succeed in providing jobs for themselves, as well as others. Many Nigerians are very resilient in this regard in establishing and managing business profitably.

**Increase in productivity through innovation:** Innovation which has been described as a process by which entrepreneur convert opportunities (ideas) into marketable solution (Kuratko, 2009), is crucial in raising productivity. Innovation is a key aspect in entrepreneurship. Because of the resourcefulness and ingenuity of entrepreneurs, they are able

to contribute innovatively through productivity. Nigeria can become a producing nation instead of the present situation of being a consuming nation.

**Facilitation of technological transfer/adaptation:** Opportunities for developing and adapting appropriate technological approaches are provided by entrepreneurs. This facilitates the absorption of all kinds of workers - skilled, semi-skilled and unskilled.

**Increase in resource utilization:** In many nations, resources could be left fallow but entrepreneurs harness these resources, which might otherwise remain idle, and put them into productive and profitable use. They contribute to the mobilization of domestic savings and utilization of local resources including human resources.

**Stimulation of growth in the sectors which supply it with inputs:** Generally, entrepreneurship is a tool for the stimulation of growth in the factor market. This is more apt in its factor supply market for a particular business/venture. The greater the number of small-scale entrepreneurs that exist in the downside of a particular sector, the greater the market, and by extension, the greater the capacity utilization.

**Reinforcement of large-scale enterprises and public enterprises:** Entrepreneurs principally produce raw materials in the form of semi-processed goods for the use of bigger enterprises. This is clearly depicted by the synergized relationship existing between them and large-scale enterprises, in terms of supply of inputs and assistance in the distribution of the finished goods to the final consumers.

**Encouragement and sustenance of economic dynamism that enables an economy to adjust successfully in a rapidly changing global economy:** Due to their nature, small-scale entrepreneurial ventures are usually flexible and capable of responding quickly to global economic changes. Entrepreneurial ventures have, thus, accounted for a large percentage of all businesses and a favorable percentage of Gross National Product of many countries.

**It enhances effective and efficient use of individuals' potentials and energies:** Entrepreneurship is making individuals to use their potentials and energies to create wealth, independence and status in the society. Most successful businesses in Nigeria today started small. As a result of opportunity to display potentiality and independence, some entrepreneurs are able to work on their ventures and growing them to become big businesses that bring them fulfillment for the growth and ability to create jobs for others.

### **Challenges of Entrepreneurial Education in Nigeria and Possible Solutions**

As may be expected of this veritable tool for development, entrepreneurship in Nigeria is tainted with a plethora of problems. These problems, as highlighted in Inegbenebor (2012) and Kuratko (2003), are presented below together with the perceived solutions.

1. **Students' Orientation:** The place of passion is critical in cultivating and promoting entrepreneurial spirit in students. This follows that a passionate and committed student of entrepreneurship may end up taking the course as a career goal. Entrepreneurship, as it is

today, is not taken by many as a vocational course of study in Nigeria, rather, wage earning is favoured. This is a challenge to the field. But to stimulate students' interest in this line, a design of entrepreneurship education with significant promotional content as well as an enabling environment is needed for that purpose.

2. **Orientation of Schools Administration:** At present, many schools' administrators are yet to appreciate the value and potential of entrepreneurship education in the development of the nation, hence, no real support is articulated by them. Therefore, need for the leadership of schools to reorient themselves towards entrepreneurship development. Practical steps towards result-oriented entrepreneurship can only be achieved in schools only when school administrators themselves know and promote activities of entrepreneurial development. The National Universities Commission (NUC) and National Board for Technical Education (NBTE) should go beyond prescribing the minimum academics standards with respect to entrepreneurship education to organizing seminars and workshops with the aim of enhancing the knowledge of school administrators in this area. The fundamental question of who to be the target in entrepreneurship education is another fascinating aspect of polytechnic and university administrators' orientation. Entrepreneurship should be an elective or a compulsory course? Should students be allowed to self-select themselves for entrepreneurship education? Whatever the answer to these questions may be, it is important that entrepreneurship is promoted heavily among young people. Special effort should be made to promote entrepreneurship education among students in science, engineering and agriculture where the potential for growing innovative, high growth firms is high.

3. **What to Teach:** What to teach depends on the overall aim that a given entrepreneurship education programme seeks to achieve. At the initial stage of entrepreneurship education, it was believed that the best that can be achieved by educators was to seek to change the perception of students by making them aware of the nature and scope of entrepreneurship, the characteristics and the role demands of entrepreneurs and the impact of social, economic and political environment on new ventures creation (Loucks, 1982 in Inegbenebor, 2006). According to Kuratko (2003), entrepreneurship education includes skill building in negotiation, leadership, new product development, creative thinking and exposure to technological innovation. Other areas considered to be important for entrepreneurial education are sources of venture capital, idea protection, characteristics of entrepreneurs, challenges of each stage of venture development and awareness of entrepreneurial career options. In relation to Nigeria, guidelines have been provided by the concerned regulating bodies. In spite of this, there is need for entrepreneurship teachers, educators and practitioners to brainstorm for the purpose of generating ideas about what to teach given the socio-economic peculiarity of Nigeria.

5. **How to Teach:** How to teach entrepreneurship addresses the issues of how best to stimulate students' interest in entrepreneurship, how best to transfer information, skill and attitudes relevant for successful venture creation and sustenance. Researchers have found widespread use of experiential learning in entrepreneurial education in most schools (Inegbenebor, 2006). Experiential learning is an effort to integrate real world experiences with



conceptual learning. It involves various techniques as case analysis, business plans, consulting with practicing entrepreneurs as guest speakers, internship in entrepreneurially-run businesses, student involvement in product development teams, simulation, field trips, use of video and films and so on. The major advantage of this method is that the students are actively involved in the learning process. Also, the lecture method which is suitable for providing information, explaining concepts and theories is widely used where necessary.

6. **Who is to Teach Entrepreneurship?** No doubt, special training and experience are required for the purpose of teaching entrepreneurship. Entrepreneurship teachers and facilitators should, as a matter of policy, be made to acquire the requisite knowledge, skills and expertise for this purpose. Inegbenebor (2006) opined that one technique that can be used in improving the teaching of entrepreneurship is to encourage the educational institutions involved to share resources, knowledge and experience in this area through seminars, conferences and workshops. Also, business experts and practitioners should be invited as speakers to share their practical experiences in the course of managing their businesses or rendering consultancy services.

7. **Teaching Facilities:** Materials to aid the learning process of entrepreneurship in Nigerian institutions are not adequate, in the real sense of it. Entrepreneurship has, to this day, remained largely the same as other subjects in terms of delivery. There should be hand-on teaching materials and equipment to aid learning process in the various institutions.

8. **Capacity Building Centers:** As alluded to in the point above, centers for capacity building, where the intending entrepreneur is made to have hands-on experience are not adequate, if they ever exist in Nigeria. Incidentally, entrepreneurship is better appreciated in practical experience than in being theoretical. It is important, therefore, that the knowledge gathered in theory be backed by real life practical experiences in laboratories, workshops and business incubation sites.

### **Conclusion and Recommendations**

The period of graduates picking up their certificates and wandering the streets seeking for white collar jobs that are no longer available is fast becoming a thing of the past and Nigeria must recognize and adopt measures to embrace entrepreneurship education, recognizing and proffering solutions to the challenges of entrepreneurship education in the country. Evidently, Nigeria is lagging behind in preparing her workforce for the challenges of the rapidly changing global economy. Improved and sustainable global economy development depends on a strong entrepreneurship education. It is against this background that the following recommendations are proffered for effective entrepreneurship education in Nigeria, Africa and other nations:

1. Government and other education stakeholders should make sure that educational program at all levels of education is made relevant to provide the youths and graduates needed entrepreneurial skills.
2. It is also recommended that the government should give adequate attention to entrepreneurial development in the country through the provision of good economic environment to encourage individual participation in business while this is guaranteed entrepreneurship will thrive and consequently improve economic growth.

Once government and relevant Stakeholders are committed to eliminating the challenges of entrepreneurship education; it is therefore hoped that given these shared responsibilities, entrepreneurship will flourish and be employed as an essential tool for job creation and sustainable development in Nigeria.

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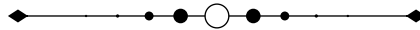
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# **A Critical Appraisal on the Application of the Doctrine of Indoor Management to Memorandum and Articles of Association Under Companies and Allied Matters Act (CAMA), Laws of the Federation of Nigeria, (LFN), 1990 (As Amended)**

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## **Abstract**

**T**his study examined the Doctrine of Indoor Management in relation to Memorandum and Articles of Association under Companies and Allied Matters Act, (CAMA). In the study the researcher discussed the origin of the doctrine of indoor management and its subsequent application to Nigerian corporate law with particular reference to companies' memorandum and articles of association. The methodology adopted in this study is doctrinal method whereby primary and secondary sources forming part of related literatures and judicial decisions are used. The researcher identified the legal problems associated with the doctrine which consequently, gave rise to statutory and judicial differences. The main findings in this study therefore were the two conflicting positions of the Act and that of the judicial decision on the doctrine. Accordingly, while the Act relieved persons from making inquiries on the powers of a company, courts have however, maintained a contrary position. Consequently, the researcher recommended for amending the provision of CAMA as regard the doctrine so that there would be conformity between the statute and judicial pronouncements.

**Keywords:** *Critical Appraisal, Doctrine of Indoor Management, Memorandum and Articles of Association, Companies and Allied Matters Act.*

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## **Introduction**

The Doctrine of Indoor Management arose sometimes in 1856 to supplement the rigorous and economically negative impact of the Doctrine of Constructive Notice. The doctrine of constructive notice presupposes that a person is presumed fully aware of the existence of certain facts, even though knowledge thereof has not actually been perceived by any of his senses but (those facts) are made available to the public. is a limitation to the doctrine of constructive notice. It is otherwise known as the rule in *Royal British Bank v Turquand*. The rule, though passed through several judicial modifications is direct opposite to the doctrine of constructive notice; same was essentially propounded in a bid to protecting outsiders against the fraudulent activities of crafty companies. The gist and legal consequence of the doctrine is that individual third parties contracting with a company in ignorance of its internal irregularity otherwise he is not hinted of the irregularity which may likely make him feel suspicious and resolve to embark on inquiries, would not be made to shoulder any liability thereof.

In Nigeria however, the doctrine has first come to light same was adopted and applied in decided cases and subsequently enshrined in the Companies and Allied Matters Act (CAMA) in 1990 consequent upon which, the hitherto position was changed and the *Turquand* Rule was modified. The current position of the law is that third persons dealing with companies are entitled to assume that all is well as per as its memorandum and articles of association.

## **Statement of the Problem**

Section 69 (now section 93) of the Companies and Allied Matters Act LFN, 2004 provides for the Doctrine of Indoor Management, consequently, persons dealing with companies through their agents are consequently entitled to assume that all internal formalities pursuant to memorandum and articles of association are duly complied with. However, position of judicial decisions in Nigeria has not been the same with provisions of the Act which accordingly yield to irreconcilable differences in our corporate matters.

## **Methodology**

The methodology adopted in this paper is doctrinal method whereby the materials used are documentary. The paper therefore relies on the analysis of both primary and secondary documents. This among other things includes materials such as statutes, text books, case laws articles, journals, papers and reports presented during seminars or workshops, internet materials and so on. It is generally used to study the law the way they are, to develop new concepts or to re-interpret the existing ones.

## **Nature and Origin of the doctrine of Indoor Management**

The term indoor refers to performing some acts behind closed doors or inside building not necessarily accessible as of right by outsiders (Robinson, 2006, p. 773). Management on the other hand, presupposes an act of devising an intellectual skills by directing or planning some acts (Hornby, n.d., p. 611). It also refers to dealing with public or private affairs by direction, regulation or administration for the purposes of gaining profits or for peace and enjoyment by the members of a community or organization (Black, 1990, p. 960). The doctrine of indoor management otherwise, presumption of regularity means that if a person in good faith deals



with a board of directors or any other representative body of the company while exercising powers of and directing business and affairs of the management, as argued by Arti, (2019) that person is not affected by any defects in internal procedure or by its failure to fulfil conditions which are required by the company's memorandum or articles to be fulfilled before the act or transaction is effected.

The principle of indoor management was first decided in the case of *Royal British Bank v Turquand* (1875) LR 7 HL 869 in which the directors of the defendant company borrowed the sum of £2,000 from the plaintiff. According to its memorandum and articles of association, the directors are only empowered to borrow money subject to approval by an ordinary resolution of the members in general meeting. The resolution was in fact passed but it had not specified the amount the directors could borrow. The company contended that under its articles of association, directors are only empowered to borrow certain amount authorised by resolution of simple majority of members in its general meeting. It was held that the bond was valid and enforceable; as such the plaintiff can legally enforce its terms. The court further held that the plaintiff bank is by law, permitted to assume that the resolution permitting the directors to borrow the amount pursuant to the articles was duly held and allowed, it was not in position to know or enquire about the internal formalities of the company. The defendant company was therefore liable. According to the court:

*... We may now take for granted that the dealings with these companies are not like dealings with other partnerships, and that the parties dealing with them are bound to read the statute and the deed of settlement. But they are not bound to do more. And the party here, on reading the deed of settlement, would find, not a prohibition from borrowing, but a permission to do so on certain conditions. Finding that the authority might be made complete by a resolution, he would have a right to infer the fact of a resolution authorizing that which on the face of the document appeared to be legitimately done.*

It is clear that by the judicial decision above, a third party is still having some little problems in the sense that the rule only obviated him from the cumbersome and burdensome inquiries into the internal affairs of a company to which the doctrine of constructive notice hitherto, made no reference.

Some common law countries in many jurisdictions adopted the *Turquand* Rule in judicial decisions and statutory provisions. The rule was modified in some cases like the case of *Mahony v. East Holyford Mining Co* (1875) LR 7 HL 869 where new principles emerged as in the case of *Morris v. Kanssen* (1946) 1 All ER 546 was laid down to meet up the test of the day and to defeat attempts by crafty companies to rely on lack of board meeting or sufficient quorum to pass a resolution (Campbell, 1960), In recent times, the *Turquand's* Rule has played significant role to the development of the law and jurisprudence. The rule is now firmly entrenched in countries like Section 290 of the Indian Companies Act, 1956, United Kingdom, Section 290 of the Indian Companies Act, 1956, India and Allied Matters Act, Cap. C20, Laws of the Federation of Nigeria (LFN), 2020, Nigeria, just to mention a few. The sections, though differently worded, bear the same meaning. Consequently, acts done by a person as director is



in law valid notwithstanding that his appointment may afterwards be discovered invalid by reason of any defect or by virtue of any provision contained in the articles that are of internal regulations (Emiola, 2001, p. 108).

As such, the rule appears to protect third parties and perhaps any member or director of the company due to their ignorance of a particular transaction that they seek to enforce. Conversely, any outsider who has knowledge of the affairs of the company or is put on inquiry would not be protected by this rule (Campbell, 1960),

Many common law courts followed the rule in *Turquand* case and in some cases many novel principles emerged to the extent that the rule is now settled in United Kingdom. Accordingly, section 40 of the Companies Act of the United Kingdom, 2006 provides that a company is bound by the acts of its agents notwithstanding anything to the contrary as may be contained in its articles of association. By section 290, Companies Act, 1956, India, the principle in *Turquand* case was firmly codified whereby acts of company agents are considered binding on the company notwithstanding anything to the contrary as may subsequently be discovered.

Similarly, *Trunquand* case also attracted subsequent common law courts whereby some followed the principles accordingly while others deviated therefrom owing to some newly emerged facts. Most of One of these cases is the case of *Mahony v. East Holyford Mining Co.* (1875) LR 7 HL 869, in this case, a company was formed by one Wadge but its memorandum and articles of association was subscribed by two persons to purchase his (Wadge) Mine at a price in excess of its real value. Hoare and Wall subsequently joined Wadge in directing the company's affairs together with four clerks employed by Wadge and one independent person, McNally. The articles empowered the subscribers to appoint the company directors. This was not in fact done. However, Wadge Hoare and Wall continued managing the company's affairs from its registered office and issued a prospectus inviting ordinary members of the public to subscribe to its shares. The money received from the applicants was deposited in the company's account at the appellant bank. Afterwards, Wadge communicated to the bank as 'Secretary', (though he was never appointed to the post), asking them to honour *cheques* signed on the company's behalf by any two of the three directors which the bank made no inquiries.

The company went into liquidation and the liquidator sued the bank for the amount thus paid. The bank while relying on the basis of the *Turquand* rule argued that it was not liable as it had no knowledge of the directors' lack of authority. It was held that the bank was not legally required to enquire about the internal procedure but rather the memorandum of and the articles of association. The bank in so doing, it would have found that there was a specified procedure of appointing directors and from this; the bank could reasonably have assumed that the directors had actually been appointed. This case is apparently distinct with the *Turquand* rule and the rule of Apparent Authority of a company's agents. In the former, unlike the latter, a party does not need to rely on the representation and act on it. If this were the case, the bank would have been held to the standard of the reasonable man and accordingly, would have had a duty to at least inquire whether all the procedures have been followed.

Similarly, the *Turquand* rule is not applicable to parties that formed parts of the company management though, were alien to the procedures in question. This question was decided in the case of *Morris v. Kanssen*, (1946) 1 All ER 546, where the appellant on the date of transfer of shares was appointed to the Company's Board of Directors. It was not within the appellant's knowledge that the procedural requirements of appointing the other directors had not been followed. The court held that the appellant could not rely on this rule as he had assumed the position of a director on the date of the transaction and was thus under an obligation to inquire about the procedural requirements of such transfer and whether the requisite authority had been vested with the other directors. In the instant case, the court did not question the *Turquand* Rule itself, simply because had the appellant not been appointed a director at the time of the transfer, his reliance on the *Turquand* Rule would have been successful.

### **Application of Doctrine of Indoor Management to Nigerian Corporate Law**

The doctrine of indoor management was first embraced and applied in the Nigerian corporate matters through judicial pronouncements. This principle was laid down in the case of *In Pool House Group (Nigeria) Ltd. v. African Continental Bank Ltd.*, (1969) N.M.L.R. 347, the plaintiff company was a customer of the defendant bank. To secure an overdraft of £25,000 from the bank, the plaintiff executed a deed of mortgage comprising leasehold land in favour of the bank. The deed was signed by a director of Lebanese origin, another director and the secretary, under the company's seal. The company sought a declaration that the purported mortgage was null and void, in that the director of Lebanese origin purporting to act as a director of the company was an alien, and was prohibited under section 33 (4) of the Immigration Act 1963 from being a director of the company. The court held that the defendant bank was entitled to assume that the director was properly appointed and had the authority to execute the mortgage on behalf of the plaintiff company.

Also in *African Development Corporation Ltd. v. Lagos Executive Development Board & Anor.*, (1978) NSCC 220, the plaintiff acquired leasehold of two plots of land from the first defendant, LEDB which executed a deed of lease in plaintiff's favour. Afterwards, following a request conveyed by the managing director of the plaintiff company to surrender the deed and be released from the contract, the plaintiff's general manager who was a director of the company, signed the deed of surrender on behalf of the company which was witnessed by an accountant with the company's seal affixed. Eleven years later, the plaintiff brought an action against the 1<sup>st</sup> defendant seeking a declaration that the deed of surrender was null and void, claiming that the board of directors had not given the general manager authority to execute the deed of surrender. It was held applying the earlier authorities, that the defendant board was entitled to assume that plaintiff's general manager being a director in his own right in the company, had authority to execute the deed of surrender of the lease, and that the plaintiff company was bound accordingly.

In another case of *Trenco (Nigeria) Ltd. v. African Real Estate and Investment Co.*, (1978) 3 S.C.9, (1978) 1 L.R.N. 146, The appellants claimed against the respondents, the sum of N102, 702.73, as endorsers of a Bill of Exchange, dated 1<sup>st</sup> March, 1972 and payable on the 30<sup>th</sup> March 1972; and in the alternative, as guarantors of a contractual undertaking made to the appellants by

West African Steel and Wire Company Limited. The West African Steel and Wire Company Limited had been indebted to the appellants, and being unable to settle the debt, it was agreed by both parties, that the debt be liquidated monthly, over a period of time; with the respondents as guarantors in lieu of a Bankers Guarantee. The appellants accepted twelve Bills of Exchange endorsed by the respondents, each bill maturing monthly. The first bill was successfully negotiated but the second was dishonoured. The appellants (as plaintiffs) commenced this action to recover the amount. The respondents denied liability, stating inter alia that: (1) the director who purported to act for them did not have the authority to do so; (2) no consideration moved from the appellants in respect of the guarantee; and (3) the bill was never properly presented to them and the appellants never gave them any notice of dishonour of the said bill. The Supreme Court held that the defendants were entitled to assume that the chairman of the plaintiff company had the authority to enter into a binding contract with the defendant company on behalf of the plaintiff company.

Statutorily, the doctrine of indoor management came to light in Nigerian legislation when Companies and Allied Matters Act was promulgated in 1990. Adoption of the doctrine followed abolition of application of the doctrine of constructive notice with respect to the company's memorandum and articles of association under section 68 (now section 92). Accordingly, the section provides that except as mentioned in section 223 of this Act, regarding particulars in the register of particulars of charges, a person is not deemed to have knowledge of the contents of the memorandum and articles of a company or of any other particulars, documents, or the contents of documents merely because such particulars or documents are registered by the Commission or referred to in the particulars or documents so registered, or are available for inspection at an office of the company. Though the Act witnessed several amendments, it is provided for under section 69 and presently, section 93 of the Act. The Act provides that where a person deals with a company or with any of its officers or agents, that person is entitled to assume that certain acts of the company are in line with its constitution and the company and its officers or agents are estopped from denying its truth subsequently. These acts are as follows:

*That there is due compliance with the company's memorandum and articles of association. This principle codifies the position of Turquand's Rule in that persons dealing with the companies through its officers or agents are deemed to have ascertained that the transaction so entered is not inconsistent with its articles of association (Emiola, 2001, p. 108).*

That the particulars of persons described to act as a director, managing director or company secretary as filed with the commission in compliance with sections 36 (4) (c), 319 and 337 of the Act has been duly appointed and vested with authority to exercise and perform the functions of holder of these offices respectively. This position was followed and applied by subsequent judicial pronouncements. For instance, in the case of *Batracco Ltd. v Spring Bank Ltd.*, (2015) 5 NWLR (pt. 1451), p. 107, it was held that where a board of directors gives security in accordance with their legitimate powers or authority derived from the constitution of the company, a third person dealing with them is entitled to assume that they have power to do so.

However, it would appear that this rule cannot be upheld in all cases involving the authority of company employees. Its application or otherwise depends on a particular circumstance of each case including the status of the company official. This principle could be seen in the case of *Onuh v. United Nigeria Insurance Co. Ltd.*, (1974) 3 A.L.R. Comm. 15, the court held that the rule was inapplicable and the company was not bound to a third party on the basis of a letter written by a clerk who did not sign even in a representative capacity. The court held that the plaintiff was under a duty to find out what position the person who signed the letter that emanated from the company; he was not entitled to assume that a company clerk is an authorized official. The inevitable conclusion from this is that, when an employee or agent of a company does not occupy certain position in a company whereby it will be usual for him to have been delegated authority to bind the company in a particular transaction, the company will not be bound, unless he has actual authority or has, in some other way, been held out as having authority to bind it in relation to that transaction.

### **Third Party's Ignorance of the Company's Constitution**

There exist an irreconcilable difference between the Act and the courts' decision in respect of the dealings by a third party with the company or its agent in ignorance of the latter's constitution. It is no longer in dispute that documents filed with the Registrar of Companies is ranked public documents, as such, members of public are assumed to have read and fully aware and understood their contents, hence, constructive notice. (Ogbuanya, 2010 p. 202). Pursuant to section 68 (now section 92) application of the doctrine is however, abolished with particular reference to memorandum and article of association. (Arti, 2019). This being the case, it could safely be inferred that a third party is not bound to inquire the company's constitution to know the extent of its power in relation to the transaction at hand.

*On the contrary, other legal text writers and judicial authorities have clearly departed from the above principle in which they expressed that a person seeking to invoke the Turquand rule must first show that he has knowledge of its memorandum and articles of association (Ignatus, 1984, p. 62).*

In a Nigerian case of *Ajayi v. Lagos City Council*, (1967) (3) A.L.R. Comm. 213, which followed the common law of *Ajayi v. Lagos City Council*, (1967) (3) A.L.R. Comm. 213 wherein <sup>the</sup> articles of association allowed powers to be delegated to a director of the company. The plaintiff entered into a contract with a director who had no power to do so. But the plaintiff was not aware of the delegation of powers contained in the articles of association. It was held that the plaintiff who had no knowledge of the articles could not rely on it as conferring ostensible or apparent authority on the directors and that the company was not estopped from establishing that there was no authority in the director to enter into the contract or agreement with the plaintiff on its behalf.

It should be stressed that, if persons dealing with the company are assumed aware of the company's capacity and extent of its powers (as contain in the memorandum and articles of association) to the extent that no party can successfully invoke *Trunquand* rule without first having full knowledge of the company's constitution, thus making the knowledge of the constitution mandatory. This could be seen as a tacit affirmation for the hitch-free operation of

the doctrine of constructive notice, (Oshio, n.d., p. 70-87) which has completely been abolished by the operation of section 92 of the Act.

### **Observations/Findings**

The doctrine of indoor management as examined in this paper was established to protect such fraudulent activities by companies in a quest to escape liability arising from a particular transaction which may likely result in lost of confidence and back of trust between third parties and the companies.

An impecunious outsider intending to rely on the *Turquand* rule to enforce his contract with a particular company is mandated to make enquiries on company's constitution to know extent of its powers, an exercise which the law has abolished.

### **Conclusion**

The doctrine of indoor management otherwise known as the *Turquand* Rule is an equitable principle which the court employed in order to supplement the rigorous of common law doctrine of constructive notice. The principle was enunciated in the case of *Royal British Bank v Turquand* and applied to Companies and Allied Matters Act. The application was based on presumption of regularity because persons dealing with companies are not legally entitled to gain access to its internal affairs nor is the company bound to disclose same. It is unequivocally clear that operation of the doctrine of indoor management was not meant to disturb or restrict operation of the doctrine of constructive notice, but rather to halt encroachment of the constructive notice. Though the Companies and Allied Matters Act has completely abolished application of the doctrine to memorandum and articles of association, some judicial pronouncement seemed to have nodded its operation to the contrary.

### **Recommendations**

The observations made in this paper was characterised by some problems which consequently gave rise to the following recommendations:

1. The law should device a legislation to relax active participation by companies and their agents in the commission of fraudulent activities in their dealing with third parties dealing with them.
2. Our courts should be invited amend their previous decisions to conform with the existing laws.



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## Pattern of Selection and Acquisition of Resources in Academic Libraries in Borno State

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### Abstract

The study examined pattern of selection and Acquisition of Resources in Academic Libraries in Borno State, Nigeria. Four objectives and four research questions guided the study. The objectives were to determined the participants in resource selection, tools used for selection, acquisition method adopted as well as to determine the hindrance to selection and acquisition of resources in the libraries studied. Questionnaire was used as data collection instrument, all the 16 copies filled, the instrument was revalidated and its reliability tested, giving, the response rate of 100%. The research questions were analyzed using descriptive statistics (content analysis). Results of the study revealed that selection of resource in the libraries understudy were mostly done via users' contribution, on the tools used for selection, the study revealed that Vendor list, Publishers' Catalogue, Reviews, Bibliography and online searching were used. On acquisition methods, the study revealed sources of acquisition as; donations, gift and exchange, purchase among others, but purchase methods cut across all the libraries understudy. The study concluded that selection and acquisition-pattern in libraries varies from library to library. Based on the findings, the study recommended among others that; libraries understudy should endeavor to include faculty members in selection exercise, tools for selection should be reviewed, apart from purchase other means of acquiring materials should be encouraged and parent institutions should endeavor to fund selection and acquisition procedures in libraries understudy.

**Keywords:** *Pattern, Acquisition, Resources, Academic Libraries*

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## **Introduction**

Collection Development is one of the important and challenging library management activity. It is a process of selecting, ordering and payment of information materials for the use of the users in the library (Olaajo and Akewukekere, 2006). Based on this, collection development helps to enhance the assemblage and provision of a variety of information materials meets the desperate need of library users. Nnadozie (2006) described collection development as a planned, continuous and cost-effective acquisition of quality and relevant materials to meet the needs of the users and objectives of the university libraries.

Collection development is concerned with the formulation of a systematic plan to build a library collection which will meet needs of its users. It encompasses a number of activities related to the development of the library's collection including the determination and coordination of selection policy, assessment of current and potential user needs, collection use studies, collection evaluation, identification of collection needs, selection of materials, planning of resource sharing, collection maintenance and weeding (Gorman and Howes, 1989; Clayton and Gorman, 2001).

Essentially, libraries particularly Academic libraries have reviewed their efforts in an attempt to build a well-stocked collections. These attempt emphasize adequate and effective collection development efforts. This has led to the growth of interest in implementing elements of collection development processes, particularly, adherence to effective selection criteria and effective acquisition procedures.

## **Statement of the Problem**

Preliminary investigation by the researcher on academic libraries in Borno State indicated that there were likelihood (possibilities) of inadequacies in the ways and manners resources are selected and acquired into the libraries understudy. Based on the above, the researcher assumed that the selection and acquisition patterns used in the libraries understudy are most likely not effective. Tucker and Terrence (2004) observe that there are many challenges facing new libraries in the academic environment, including selection and acquisition pattern. This is the motivation for the study.

Expectantly, libraries, particularly Academic libraries worldwide are required to build a viable collection for their teeming users built it seems as if this expectation is faced with numerous obstacles which may likely include the following; decreased budget allocation, non-adherence to collection development policy, lack of qualified selection and acquisition librarians.

## **Objectives of the Study**

The objectives of the study are to:

- i. Determine the participants in resource selection in the libraries understudy.
- ii. Determine the tools used for selecting materials in the libraries understudy.
- iii. Determine the acquisition methods adopted by the libraries understudy.
- iv. Determine the hindrance to selection and acquisition of resources in the libraries understudy.

### **Research Questions**

The following research questions guided the study;

1. Who are the participants in resources selection in the libraries understudy?
2. What are the types of tools used for selection materials in the libraries understudy?
3. What are the types of acquisition methods adopted in the libraries understudy?
4. What is the hindrance to selection and acquisition of resources in the libraries understudy?

### **Significance of the Study**

It is expected that the findings of this study will be useful to the University and College authorities in Borno State to appreciate and support the selection and acquisition processes in their libraries. Furthermore, the findings of this study would encourage libraries and information centres as well as information provider agencies in Borno State to fully understand the effective and efficient selection and acquisition pattern in their libraries.

### **Review of Related Literature on Selection and Acquisition of Resources**

The review of literature reveals the findings of number of studies on various aspects of collection development. Evans (2000) stressed the need to have a collection development policy in the context of hybrid collections to delineates the purpose and contents of a collection relevant to its users as a whole. Further a well written Collection Development Policy typically identifies subject areas in which it may be preferable to have one format over another (Lee and Wu, 2002). Jones (2007) discovered that 91 percent of the collection in the library being studied was derived from donations, gifts, and bequests. A collection development policy is therefore needed that delineates the purpose and contents of a collection relevant to its users as a whole (Vans, 2000; Futas, 1984).

Tucker and Terrence (2004) observe that there are many challenges facing new librarians in the academic environment, including collection development. This article analyzes the topic of collection development and how it relates to new professionals in the field of librarianship.

The study of Hsieh and Runner (2005) includes a survey targeting academic collections development and acquisition librarians and an analysis of academic collection development policies. Also, the study describes treatment of materials, library policies reasoning, impact of faculty and students on policy changes and other related factors. Manda and Panda (2005) have described different dimensions of collection development with specific reference to Engineering College Libraries. They have analyzed data on library collection received from 17 major Engineering College Libraries of West Bengal and enumerated the activities of seven major library consortiums of the world engaged in sharing resources among Engineering college libraries. The paper by Vignau, Barbara Susana Sanchez (2005) is based on both research about collection development policies and data compiled as a result of a survey of 16 centers of higher and technical education in Cuba. The results have indicated that although the directors of university libraries and managers of collection development were aware of the process of collection development, only few actually adopt and implement a policy for the same and carry out user studies. Wittenbach, Stefanie (2005) proposes the restructuring of

collection development at the University of California Riverside University Libraries. The author describes the new system that has created more accountability for the materials budget. As a result of the new systems faculty members are more aware of the budgeted amount for monographic purchases in their own area and whom they can contact with concerns or purchasing requests. Ameen, Kanwal (2006) discusses all kinds of managerial and practical issues pertaining to collection development and acquisitions to collection management. However, there appears to be gaps in LIS literature regarding tracing the semantic developments of the subject.

The paper attempts to explore the relationship between the use of varying collection-related terminologies and ever emerging forms of scholarly publishing in libraries. It was found that the related emerging terminology has been expanding rapidly because of the direct impact of the never-ending developments, though with different pace in different countries. The varying use pattern reflects the expansion in the aims and ways of functioning of a modern library. Vignau, Barbara Susana Sanchez (2006) have discussed the Collection Development in a digital environment and have mainly focused on user-oriented concept of development in digital collections. They believe that developing digital collections is a logical consequence of inserting information technologies in organizations. They have rightly concluded that the usual route towards other models of libraries has allowed the development of the digital collections as a source of digital Libraries. Jones (2007) categorizes collections into four areas: materials to support students learning and teaching, materials to support researchers, special collections, and just in case' materials.

The literature of collection development is vast. General treatments of academic library collection development include Gessesse (2000), Nisonger (1999), Rowley and Black (1996), Seth, Ramesh, and Sahu (1997), Susana, Vignau, and Meneses (2005), Taylor (1999), and Wessels (1995). Explorations of particular countries and case studies of individual libraries include Andrada and Vergueiro (1996), Maharana, Choudhury, and Dutta (2004), and Sinha and Tucker (2005). Digital collections are of particular interest. Authors who discuss this topic include Arlitch and Johnson (2005), Cole and Shreeves (2004), Kiondo (2004), Leung (2005), Nikolaido Uet al (2005), and Ashoor (2005). Tools such as metadata systems and software are pertinent to collection development. Works on those topics include Bekaert, et al. (2002), Calanag, Tabata, and Sugimoto (2004), and Mutula and Makondo (2003).

### **Methodology**

The study adopted Survey Research Design. Survey design is concerned with studying large population, it can as well as be used for relatively smaller population. Aina (2004), opined that Survey Research involves gathering opinions of people on a particular issue or problem, and the conclusions opinions of respondents on a particular problem might provide solution to it.

### **Population and Sample**

The target population of this study is sixteen professional and para-professional staff in the libraries understudy. The entire population was used, because it was manageable in terms of cost and accessibility to the subject, hence there was no need for sampling. According to

Afolabi (1999) an entire population understudy can be adopted if it is manageable in terms of cost and accessibility to subject if the study would not create problem in terms of cost. The choice of these categories of staff can be justified in the sense that, the issue of selection and acquisition are within the management/professional domain

**Table 1:** Professional and para-Professional Library Staff surveyed

<b>Institution Libraries</b>	<b>No. of Professional and Para-Professional Staff</b>
Ramat Library, Unimaid	6
Ibrahim Musa Library Kashim Ibrahim College of Edu. Maiduguri	2
Ramat Polytechnic Library, Maiduguri	2
Mohammet Lawan College of Agric. Library, Maiduguri.	2
Sheik Abubakar El-Maskin Library, Moh'dGoni College of Islamic Studies, Maiduguri	2
HarunaNingi Library College of Education Waka Biu	2

**Source:** Institutions Libraries Bulletin for each Library (2016).

### **Research Instrument**

The research instrument for this study was questionnaire. Sambo (2015) point out that a questionnaire is a research instrument that consist of a set of question on a specific subject under investigation which the participants in a study are expected to respond. The questionnaire is made up of section "A" to section "E" section "A" is for Bio-data of the libraries, section 'B' participants in resource selection, section 'C' tools for selection 'D' Acquisition Method 'E' Hindrance to selection and acquisition. The validity of the questionnaire was also checked by experts in the field of library management and pilot-tested at Abubakar Balewa University Library Bauchi.

### **Research Procedure**

Twenty four (24) items questionnaire was designed and administered to sixteen (16) professional and Para-professional staff in the libraries under study. The questionnaire were self-administered and it took the research six (6) weeks to administer the copies of the questionnaire. All the 16 copies of the questionnaire were duly filled and returned representing 100 percent response rate.

### **Data Analysis (Content Analysis)**

Descriptive statistics were used in the tables. The analysis of the data was based on the number of returned copies of questionnaire using descriptive statistics (Content analysis).

Results and Discretion of finding

**Table 2:** Participant in Selection Process

<b>Institution Libraries</b>	<b>Participants in selection</b>
Ramat Library, Unimaid	Library Users'
Ibrahim Musa Library Kashim Ibrahim College of Edu. Maiduguri	Acquisition Section Users'
Ramat Polytechnic Library, Maiduguri	Library Adrisary Committee Users'
Mohammet Lawan College of Agric. Library Maiduguri	Acquisition Section Users'
Sheik Abubakar El-Maskin Library, Moh'dGoni College of Islamic Studies, Maiduguri	Acquisition Section Users'
HarunaNingi Library College of Education Waka Biu	Acquisition Section Users'

On selection of materials in libraries understudy, the result shows that in almost all the libraries, libraries, users, library advisory committee and staff in charge of acquisition section were the once responsible for selecting materials into the libraries understudy. Results indicated that in each of the library users greatly contribution. Similarly, Tailer (1999) identified participants of book selection in libraries to include Library Committee, User and Libraries.

**Table 3:** Tools for Selection

<b>Institution Libraries</b>	<b>Participants in selection</b>
Ramat Library, Unimaid	Publisher Catalogues, Vendor, List, Review, Bibliographies
Ibrahim Musa Library Kashim Ibrahim College of Edu. Maiduguri	Online searching suggestion from users
Ramat Polytechnic Library, Maiduguri	Publishers Catalogue, Vendor, Review
Mohammet Lawan College of Agric. Library Maiduguri	Publishes Catalogue, Vendor Review
Sheik Abubakar El-Maskin Library, Moh'dGoni College of Islamic Studies, Maiduguri	Publishers Catalogue, Vendor
HarunaNingi Library College of Education Waka Biu	Publishers Catalogue, Vendor

Research questions on tools used in selecting materials into libraries understudy revealed that, the following tools were the tools used in selecting materials into the librarians understudy, thus, vendor list, publisher's catalogue, Reviews, Bibliography, suggestions from users and online search. With regards to information in table 3, publisher's catalogue, vendor lists and suggestions from users are the most prominent tools used in selection in libraries understudy. The findings of this study agrees with Olaoyo (2006) findings, the study revealed that vendor, publishes committee are tools for selection.



**Table 4:** Acquisition Methods

<b>Institution Libraries</b>	<b>Types of Tools</b>
Ramat Library, Unimaid	Donation, Membership Exchange, Purchase
Ibrahim Musa Library Kashim Ibrahim College of Edu. Maiduguri	Purchase
Ramat Polytechnic Library, Maiduguri	Purchase
Mohammet Lawan College of Agric. Library Maiduguri	Purchase
Sheik Abubakar El-Maskin Library, Moh'dGoni College of Islamic Studies, Maiduguri	Purchase
Haruna Ningi Library College of Education Waka Biu	Purchase

Research question on acquisition methods in libraries understudy, revealed that Donation/gifts, exchange of materials, purchase and member are methods of acquisition used in libraries understudy. But purchase methods cut across all the libraries understudy. This finding is substantially in agreement with Chukwu (1988) who identified Donations, gift and exchange, purchase as acquisition method.

**Table 5:** Hindrance to selection & Acquisition

<b>Institution Libraries</b>	<b>Types of Tools</b>
Ramat Library, Unimaid	Lack of funds Exchange rate Economic recession Hike of price of books lack of expertise
Ibrahim Musa Library Kashim Ibrahim College of Edu. Maiduguri	Lack of funds Hike of price
Ramat Polytechnic Library, Maiduguri	Lack of funds Hike of price
MohammetLawan College of Agric. Library Maiduguri	Lack of funds Hike of price
Sheik Abubakar El-Maskin Library, Moh'dGoni College of Islamic Studies, Maiduguri	Lack of funds Hike of price
HarunaNingi Library College of Education Waka Biu	Lack of funds Hike of price

Finding on hindrance to selection and acquisition patterns in libraries understudy revealed that lack of funds exchange rate, economic recession, like in price and lack of expertise are problem controlling selection and acquisition in libraries understudy. Thus, lack of funds and Hike in prices cuts across all the libraries understudy. Similarly, this findings agrees with Kiondo (2004) who discovered the problem of selection and acquisition to include lack of fun, lack of expertise and high in price of books.

### **Conclusion**

Information generated from the libraries understudy revealed the used of selection and acquisition patterns in building library collections in the study area. In terms of participants in selection, they varied from library to library, for the tools used in selection; they have almost same tools for selection. On the issue of acquisition methods, they had varied methods, but purchase is common to all libraries understudy. And finally, lack of funds and hike in the price of information resources in the greatest hindrance to selection and acquisition.

## Recommendations

Based on the findings of the study, the following recommendation are made;

1. Libraries understudy should endeavor to include faculty members into participant in selection.
2. The tools for selection should be reviewed periodically.
3. Apart from purchase, other means of acquiring materials should be encourage;
4. Parent's institutions should endeavor to fund the selection and acquisition procedures in the libraries understudy adequately.

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## Mathematics Education as a Tool for Technological Development, Self-Reliance and Sustainable Development in Gombe State

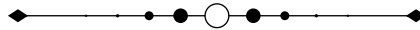
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### Abstract

The development of any nation depends on her scientific and technological advancements. Therefore, the paper examined the role of mathematics education on the technological development, self-reliance and sustainable development in Gombe state. A total of two thousand, six hundred and fifty (2,650), respondents consisted of Gombe State Ministry of Education officials, parents, principals, vice principals, teachers, students and others from forty (40) each of junior and senior secondary schools purposively and randomly selected and used for the study. Data collected using well designed and open ended questionnaire and analyzed using frequency counts, percentages and regression analysis statistical tool to answer the research question and to treat the research hypothesis of the study at 0.05 alpha level of significance revealed that there is effect of mathematics education on the technological development, self-reliance and sustainable development in Gombe state. Recommendations were given based on the findings of the study, since mathematics is the bedrock of scientific and technological development of any nation.

**Keywords:** *Mathematics, Technological, Self-reliance and Sustainable development.*

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### **Background to the Study**

Mathematics is a set of concepts, facts, principles and operations that are fundamental to the existence of every individual. The importance of mathematics education cannot be over emphasized. Abdullahi (2005), noted that in the traditional society, before the introduction of formal education, mathematics was mainly used in taking stock of daily farming and trading activities. Most traditional societies have their number systems which were either base five, ten or twenty as could be observed in their market days and counting systems. This has remained its position in the Nigeria educational system till date even with the introduction of different systems of education such as 7-5-4, 6-3-3-4 and 9-3-4.

Mathematics is one of the core subjects from primary through junior secondary and senior secondary school levels of the educational system, (Olonade, 2000). In tertiary level of education, mathematics must be taken compulsorily by any students irrespective of the area of specialization through general studies as general mathematics for those not majoring in it. This is because there is hardly any area of science, technology and humanities that does not make use of the knowledge of mathematics to explain its own concepts, theories or models. Mathematics according to Simeon and Francies, (2012), is the queen of science and technology and a tool for scientific and technological development.

However, mathematics education is the teaching and learning of all the themes that constitute the subject in all the levels of education. Agboyor, (2013), noted that the knowledge of mathematics imparted to children of school age could mark the beginning of technological spread that could give birth to technological development, self-reliance, and sustainable development if earnestly implemented which is the basic of this study. Ajayi and Muraina, (2011), described mathematics as the queen of all sciences and servant to all discipline. Mathematics education can also be seen as the practice of teaching and learning of mathematics in a way of solving problems involving learning the algorithms and formulae necessary for computations. It is a platform to learn and teach mathematics with better ways (Google).

The learners of mathematics should be able to instill in them the principles and practices required to see and evaluate business opportunities, to gather the necessary resources and the desire to take advantage of them as well as initiating appropriate action to ensure success in any chosen professional and occupation to enhance technological development, self-reliance and sustainable development, this is in line with the summary of the national objectives of primary and secondary education as it relates to mathematics educations to include:

1. To lay a solid foundation for the concept of numeracy and scientific thinking.
2. To give the child opportunities for developing manipulation skills that will enable him to function effectively in the society within the limit of his capacity.
3. To provide the basic tools for further advancement as well as preparation for trades and crafts of his locality
4. To build on the function of primary level so that the child can make a useful living professionally, economically and socially.
5. To generate interest in mathematics and to provide a social foundation for everyday life.



6. To develop computational skills and the ability to recognize problems and solve them with related mathematics knowledge.

Also, Trombley and Weiss, (1993), defined basic mathematics skills as those skills that the majority of school graduates would be able to perform successfully after exposure to the typical mathematics curriculum. The National Council of Teachers of Mathematics (2011), put it that basic skills of mathematics must not be limited to routine computation at the expense of understanding, application and problem solving, since the identification of basic skills in mathematics is a dynamics process and should be continually updated to reflect new and changing needs of the people and society at large.

Mathematics has gone through several developments since formal education was introduced in Nigeria, from the era of formal Arithmetic, Algebra, Geometry and others, via traditional and modern mathematics to the present day “general mathematics” (Aguele, 2004). The world today is aptly regarded as global village, characterized by computer and information communication technology. This age has brought with it lots of sophistications in mathematics to be able to sustain these developments. It is against this background that this paper find out the role of mathematics education on technological development, self-reliance and sustainable development in Gombe state of Nigeria.

### **Statement of the Problem**

There is need for a change in our perception about employment. Several decades ago, the possession of certificate has a guarantee for employment. But nowadays the reverse is the case. The school graduates and school leavers should device way of earning their living so as to cater for themselves and their family members as well as contribute to the development of the country as a whole, this is through self employment which will provide technological development, self-reliance and sustainable development all through the knowledge of mathematical skills.

There is need for systematic study of processes, techniques, skills and method used to invest useful things into human environment and improve lives. This will enable Nigeria to move from consumer to producer nation. There is need for total sustainable development of the learners through the knowledge of mathematics. It is a reality that the creation, mastery and utilization of modern science and technology that basically distinguishes the so called developing from the developed nation of the world

### **Purpose of the Study**

The study was to investigate the role of mathematics education as a tool for technological development, self-reliance, and sustainable development in Gombe state, Nigeria. The researchers carried out this study on the issue of teaching and learning of mathematics to provide technological development, self-reliance, and sustainable development on the learners and the country as a whole. Parents, teachers, educational policy makers and stake holders in education have been expressing great concerns about the role of mathematics education on the technological development, self-reliance, and sustainable development. Specifically, the study sought to determine:

- i. The role of policy makers that is ministry of education officials on the teaching and learning of mathematics to provide technological development, self-reliance and sustainable development.
- ii. The role plays by parents on the teaching and learning of mathematics to provide technological, self-reliance, and sustainable development.
- iii. The aspect of school principals on the teaching and learning of mathematics to provide technological development, self-reliance and sustainable development.
- iv. To shed light on the roles of teacher as facilitators of knowledge on the teaching and learning of mathematics to provide technological development, self-reliance and sustainable development.

### Research Question

The only postulated research question for the study in “Is there any effect of mathematics education on technological development, self-reliance and sustainable development in Gombe state?”

### Research Hypothesis

The only postulated null hypothesis is “There is no significant effect of mathematics education on technological development, self-reliance and sustainable development”.

### Research Methodology

The research was survey type in nature, where the required data was collected directly with the use of designed questionnaire and ended type. The items on the questionnaire were drawn from the variables of research question and the hypothesis.

### Population and Sampling Techniques

The population of the study consisted of all the Gombe State Ministry of Education officials, parents, principals, vice principals, teachers, students and others in Gombe state. However, the target population consisted of six(6) out of eleven (11) local government areas in the state and forty(40) each of junior and senior secondary schools purposively and randomly selected and used for the study. The subjects used comprised of Gombe state Ministry of Education officials, parents, principals, vice principals, students and others from the state. A total of two thousand, six hundred and fifty (2,650) in number as shown in the table I below

**Table 1:** The Distribution of Respondents Used for the Study.

S/N	SUBJECT	NUMBER
1.	M.O.E official	220
2.	Parents	600
3.	Principals	80
4.	Vice principals	60
5.	Teachers	340
6.	Students	200
7.	Others	50
	Total	2650

### **Research Instrument**

In order to obtain relevant data for the study, modified and developed questionnaire adopted from Likert scale was used. It required the respondents to answer Strongly Agreed (SA), Agreed(A) and Disagreed(D) to the statement each contained in the questionnaire. Two thousand six hundred and fifty (2,650) copies of the questionnaire were produced and administered to the respondents by the researchers.

The instrument was given to two experts in educational research, measurement and evaluation, their observations and corrections were implemented before using it for this study. Since the research question consisted of all the variables of the study and was based on the responses of each group of the respondents, both the face and the content validity of the research were satisfied.

Test, retest method was used to find the reliability of the instrument on two (2) different groups. Pearson Product Moment Correlation Coefficient (r) of 0.75 was obtained and it was shown that the instrument could be used for the study appropriately.

### **Analysis of Data**

Data collected from the Gombe state Ministry of Education officials, parents, principals, vice principals, teachers, students and others purposively and randomly selected and used for the study using closed questionnaire were analysed by statistical tool of frequency counts, percentages and regression analysis to answer the only postulated research question and to treat the only null hypothesis of the study at 0.05 alpha level of significance.

### **Results**

Data collected from two thousand, six hundred and fifty (2,650) respondents, consisted of Gombe State Ministry of Education officials, parents, principals, vice principals, students and others, analyzed using frequency counts, percentages and regression analysis to answer the postulated research question and to treat the only hypothesis of the study at 0.05 alpha level of significance as shown in the table 2 below.

**Table 2:** Percentage Responses of the Role of Mathematics Education on the Technological Development, Self-Reliance, Sustainable Development

RESPONDENTS	SRONGLY AGREED	AGREED	DISAGREED	TOTAL
M.O.E officials	160 73.3%	40 18.0%	20 9.0%	220 100.0%
Parents	500 83.0%	100 17.0%	0 0	600 100.0%
Principals	60 75.0%	20 25.0%	0 0	80 100.0%
Vice principals	130 81.3%	20 12.5%	10 6.2%	160 100.0%
Teachers	240 70.5%	60 17.6%	40 11.9%	340 100.0%
Students	1020 85.0%	120 10.0%	60 5.0%	1200 100%
Others	30 60.0%	15 30.0%	5 10.0%	50 100.0%
Totals.	2140 80.8%	375 14.2%	135 5.0%	2650 100.0%

From the table 2 above, it can be seen that two thousand, one hundred and forty (2,140), representing 80.8% of the respondents strongly agreed while three hundred and seventy five (375), representing 14.2% agreed and one hundred and thirty five (135), representing 5.0% disagreed that mathematics education can provide technological development, self-reliance and sustainable development.

### Hypothesis Testing

The only postulated null hypothesis for the study is “There is no significant effect of mathematics education on technological development, self-reliance and sustainable development in Gombe state”. The Regression Analysis results in shown in the table 3 below:

**Table 3:** Regression Analysis of the Effect of Mathematics Education on Technological Development, Self-Reliance and Sustainable Development in Gombe State.

MODEL	USISTEADIED COEFFICIENT	STANDARD ERROR	STANDARDIZED COEFFICIENT	SIGNIFICANT
(constant )	1.400	0.191	Beta	8.199 0.000
Mathematics	-0.033	0.135	0.020	-0.178 0.980

**Dependent Variable:** Technological Development, Self-reliance and Sustainable development

**Independent variable:** Mathematics Education.

From the table 3 above, it could be seen that the significant 0.980 is greater than the table-t of 0.178 at 0.05 alpha level of significance from regression weight ( $B = 0.033$ ,  $t = 0.178$ , significant of 0.980,  $p < 0.05$ ). therefore, since the significant of 0.980 is greater than the table-t of 0.178, the null hypothesis of no significant effect is thereby rejected at 0.05 alpha level of significance, hence, there is significant effect of mathematics education on the technological development, self-reliance and sustainable development. Effective teaching and learning of mathematics in schools can bring about technological development, self-reliance and sustainable development of any nation.

### **Discussion**

From the findings in the table II, it could be observed that two thousand, one hundred and forty (2,140) of 80.8% agreed, three hundred and seventy five (375) of 14.2% strongly agreed and one hundred and thirty five (135) of 5.0% disagreed, that there is effect of mathematics education on technological development, self-reliance and sustainable development. Also, in table III, it was revealed that there is significant effect of mathematics education on the technological development, self-reliance and sustainable development at 0.05 alpha level of significance.

This finding is in line with that of Tali, Mbwas and Abe, (2012), that wherever a person belongs in a society must utilize the knowledge of mathematics in one form or the other, since whoever earns and spends uses mathematics. This implies that business executives, buyers, hotel managers, real estate salesmen, restaurant workers, speculators, sports promoters, stock and bond salesmen, television producers, travelling salesmen and entrepreneurs use the knowledge of mathematics in self-reliance. The use of chemical for either weed or pest control require a sound knowledge of ratio in mixing the chemical. Similarly, a mason requires the knowledge of ratio and proportion for mixing concrete. The concept of variation is useful tool for tailors, the more times he spends on design the more amount of money he charges the owners of the cloth. All these mathematical concepts enable individual to acquire useful skills and become self-reliant. Therefore, mathematics is a tool for self-reliance.

Furthermore, in a related finding, Liza, (2014), stressed that the three major technologies- Agriculture, Medicine and Engineering all made substantial progress before they were meddled to science. The foundation of science and technology, which is the basic requirement for development of a nation is mathematics, therefore, mathematics is a tool for technological development of any nation. In a similar result of Okeke, (2007), technology is a systematic study of processes, techniques, skills and methods used to invest useful things into human environment and improve lives. Technology is not synonymous with applied science, but being more empirical in it approach to solving problems as in the case of mathematics education.

Lastly, UNESCO, (2003) noted that when the level of mathematics education is low, it hinders development and effects plans for a sustainable future. It is the type of education necessary to create jobs for sustainable livelihood in the society, mathematics have helped to improve the ability to solve our daily problems, predict weather, minimize cost and maximize profit, calculate our wages and adjust our expenditure to our incomes. Mathematics methods, structures and concepts have become indispensable to the functioning technological society.

In a related development, Odilli, (2006), opined that mathematics is a subject that helps the students to form the habit of clarity, brevity, accuracy, precision and certainty in expression and this will go a long way in providing the much needed skills to do business without fear. Mathematics education provides the capabilities for intellectual, manipulative, predictive and psychological skills for integration to enhance business ventures and sustainable livelihood.

### **Conclusion**

It could be concluded from the findings of the study that mathematics education should be improved and encouraged by the stake holders in education, parents, teachers and the students themselves. Mathematics is a vital tool for day to day activities in such fields as engineering, piloting, tailoring, agriculture, banking, medicine, etc. The paper concludes that mathematics education is a tool for becoming self-reliant, a tool for technological development and enhances sustainable development.

### **Recommendations**

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

1. Since mathematics is a key factor in technological development, government at various levels should take urgent steps to bridge the gap between the literates and illiterates in our society to enhance intellectual development of the citizenry and broaden their academic horizon in mathematics.
2. Government should provide facilities like affordable technologies, good roads, electricity, and access to information, water supply, workshops for individuals to showcase their talent in order to enhance self-reliance, job creation and sustainable development.
3. There is need for the provision of startup fund by the government for graduates who have acquired mathematical skills to enable them start up their own business. This will greatly reduce the dependence on government jobs and enhance sustainable living.

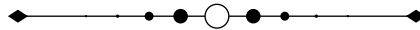


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## Causes and Effects of Delays and Disruptions in the Nigerian Construction Industry

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### Abstract

**D**elays and disruptions are among the challenges faced in the course of executing construction projects in Nigeria. Delays as well as disruptions are sources of potential risks that current studies are looking into ways to manage such as technical, social, economic, legal, financial, resource, construction and commercial. The purpose of this research is to assess causes and effects of delays and disruptions in the Nigerian construction industry. This study is descriptive, designed to obtain views from clients, consulting firms, regulatory boards and construction firms in regard to causes and effects of delays in construction projects. Two sampling techniques were used to select respondents namely: purposive and random sampling. Literature review, questionnaires techniques were used to collect data for the study. Findings reveal that the main causes of delays and disruptions are: design changes, delays in payment to contractors, information delays, funding problems, poor project management, compensation issues and disagreement on the valuation of work done. On the other hand, time overrun, cost overrun, negative social impact, idling resources and disputes are the main effects of delays and disruptions. The study concludes that there still exist a number of causes of delays and disruptions and their effects put construction projects at great risk that have an effect on their performance. It is therefore recommended that adequate construction budget, timely issuing of information, finalization of design and project management skills should be the main focus of the parties in project procurement process.

**Keywords:** *Causes, Delays, Disruptions, Construction Industry*

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### **Background to the Study**

Delay as referred in construction is prolonged construction period and disruptions are events that disturb the construction programme. Delays and disruptions are among the challenges faced in the course of executing construction projects. Delays as well as disruptions are sources of potential risks that current studies are looking into ways to manage. Various studies (Cohen and Palmer, 2004; Baloi and Price, 2003; Finnerty, 1996; Miller and Lessard, 2001) have identified sources of and types of construction risks that need to be managed as part of project management process. There are also risks and factors (Zou, Zhang and Wang, 2006; Aiyetan, Smallwood and Shakantu; 2008) that affect construction project delivery time which are also causes of delays. Causes of delays have been identified in various parts of the world such as Malaysia, Saudi Arabia, Jordan, Kuwait, Hong Kong and Thailand (Sambasivan and Soon, 2007; Al-Kharashi and Skitmore, 2008; Al-Momani, 2000; Kumaraswamy and Chan, 1998; Noulmanee, Wachirathamrojn, Tantichattanont and Sittivijan, 1999). The results reveal that there are differences and similarities as to the causes of delays. Delays and disruptions have had effects to construction projects. Some of these effects are (Aibinu and Jagboro, 2002; Sambasivan and Soon, 2007): time overrun, cost overrun, dispute, arbitration, total abandonment and litigation. The purpose of this study is to identify causes and effects of delays in Nigerian construction industry.

### **Theories on Delays and Disruptions**

In construction, the word "delay" refers to something happening at a later time than planned, expected, specified in a contract or beyond the date that the parties agreed upon for the delivery of a project (Pickavance, 2005). Lo, Fung and Tung (2006) define delay as the slowing down of work without stopping construction entirely and that can lead to time overrun either beyond the contract date or beyond the date that the parties have agreed upon for the delivery of the project. Syed, Azhar, Castillo and Kappagantula, (2002) classify delays into non-excusable delays, excusable no compensable delays, excusable compensable delays and concurrent delays. Non-excusable delays are delays, which the contractor either causes or assumes the risk for. Excusable non-compensable delays are delays caused by factors that are not foreseeable, beyond the contractor's reasonable control and not attributable to the contractor's fault or negligence.

Compensable excusable delays these are compensable delays are excusable delays, suspensions, or interruptions to all or part of the work caused by an act or failure to act by the owner resulting from owner's breach of an obligation, stated or implied, in the contract. Concurrent delays occur when both owner and the contractor are responsible for the delay. Disruptions are events that disturb the construction programme. Interferences with the flow of work in the project are common disruptions (Howick, Ackermann, Eden and Williams, 2009). Howicket al (2009) point out that many disruptions to complex projects are planned for at the bid stage because they may be expected to unfold during the project (Howick et al, 2009). For example, some level of rework is usually expected, even when everything goes well, because there will always be 'normal' errors and mistakes made by both the contractor and client (Ibid). Risks in Construction Projects and Delays Management of construction projects involves a great deal of managing risks. Managing risks involves: planning, identifying, analysing, developing risk handling strategies, monitoring and control. Project team members

particularly clients, consultants and contractors should eliminate / mitigate delays when playing their respective roles. Cohen and Palmer (2004) identify sources of construction risks to include changes in project scope and requirements; design errors and omissions; inadequately defined roles and responsibilities; insufficient skilled staff; force majeure; and new technology.

Baloi and Price (2003) categorize construction risks as technical, social, construction, economic, legal, financial, natural, commercial, logistics, and political. Similarly, Mills (2001) lists three most important risks to include: weather, productivity of labour and plant and quality of material. Other researchers such as Finnerty (1996), and Miller and Lessard (2001), have categorized same risks in addition to demand, supply, regulatory, operational, completion and sovereign. Time related risks identified by Zou et al (2006) that are have influence on project delivery are: tight project schedule, design variations, excessive approval procedures in administrative government departments, variations by the client, incomplete approval and other documents, unsuitable construction program planning and inadequate program scheduling. Aiyetan et al (2008) point out that the three most significant factors that adversely impact construction project delivery time performance are: quality of management during construction; quality of management during design, and design coordination

### **Causes of Delays and Disruptions**

Construction projects are carried out within a specified time the scenario that calls for proper time management in particular eliminating all avenues of delays and disruptions. A study by Kumaraswamy and Chan (1998) on causes of construction delays in Hong Kong found differences in perceptions as to causes of delays by different groups of participants in building and civil engineering works. They suggested that biases of different industry groups might direct blame for delays to other groups. Noulmanee et al (1999) investigated causes of delays in highway construction in Thailand and concluded that delays can be caused by all parties involved in projects; however, main causes come from inadequacy of sub-contractors, organizations that lack sufficient resources, incomplete and unclear drawings and deficiencies between consultants and contractors. Al-Momani (2000) investigated causes of delay in 130 public projects in Jordan and found that main causes of delay were related to designer, user changes, weather, site conditions, late deliveries, economic conditions and increase in quantity.

Al-Kharashi and Skitmore (2008) point out that the main cause of delay in Saudi Arabia construction sector for public projects is the lack of qualified and experienced personnel. A study by Ahmed, Azhar, Castillo and Kappagantula, (2002) identified ten most critical causes in Florida as building permits approval, change order, changes in drawings, incomplete documents, inspections, changes in specifications, decision during development stage and shop drawings and approval. Sambasivan and Soon (2007) identify ten most important causes of delay in Malaysian construction industry contractor's improper planning, contractor's poor site management, inadequate contractor experience, inadequate client's finance and payments for completed work, problems with subcontractors, shortage in material, labour supply, equipment availability and failure, lack of communication between parties, and mistakes during the construction stage. Other researchers looked into delay factors in construction

projects. Chan and Kumaraswamy (1997) identified five principal delay factors which are: poor risk management and supervision, unforeseen site conditions, slow decision making, client-initiated variations and work variations. Other delay factors in a study by Kaming, Olomolaiye, Holt and Harris (1997) are classified under cost and time overruns. The study reveals that the major factors influencing cost overrun are: material cost increase due to inflation, inaccurate material estimation and degree of complexity. On the other hand, under time overrun, the most important factors causing delays are: design changes, poor labour productivity, inadequate planning, and resource shortages.

Haseeb, Xinhai-Lu, Bibi, Maloof-udDyian, and Rabbani (2011) point out that the most common factors of delay are natural disaster in Pakistan like flood and earthquake. The study also acknowledged others which are: financial and payment problems, improper planning, poor site management, insufficient experience, and shortage of materials and equipment.

### **Effects of Delays and Disruptions**

A study by Aibinu and Jagboro, (2002) reveals six effects of delay on project delivery in Nigerian construction industry which are: time overrun, cost overrun, dispute, arbitration, total abandonment and litigation. Sambasivan and Soon (2007) disclose the same effects of delay in Malaysian construction industry. Haseeb et al (2011), identify effects of delays in Pakistan construction industry as clash, claims, total desertion and slowing down the growth of the construction sector. Ramabodu and Verster (2010) identify critical factors that cause cost overruns in construction projects as changes in scope of work on site, incomplete design at the time of tender, contractual claims (extension of time with cost), lack of cost planning and monitoring of funds, delays in costing variations and additional works. These critical factors in turn are the delay factors. Chileshe and Berko (2010) indicate that causes cost overrun in Ghanaian road construction sector are delay in monthly payments to contractors; variations; inflation, and schedule slippage. Again, these explain the causes of delays and the effect of cost overrun.

### **Research design**

This study is descriptive, designed to obtain views from clients, consulting firms, regulatory boards and construction firms in regard to causes and effects of delays and disruptions in construction projects.

### **Population and Sample Size**

The population of the study comprises of clients, architectural and Quantity surveying consulting firms, construction firms and regulatory boards. The sample size of 60 respondents was estimated comprising of 33 construction firms, 10 quantity surveying, 10 architectural consulting firms, 5 clients and 2 statutory bodies.

### **Sampling Techniques**

Two sampling procedures were used due to the nature of respondents to be involved in the study. Lists of consultants and contractors who had their offices based in Maiduguri Metropolis were obtained from respective regulatory board's offices and websites. Random sampling was used to select consultants and contractors. According to Kombo and Tromp



(2006), random sampling is the probability whereby people, place or things are randomly selected. Twenty firms from a list of local and foreign registered consulting firms in architecture and quantity surveying located in Maiduguri Metropolis were randomly selected. Likewise, 33 firms from a list of local and foreign construction firms based in Maiduguri Metropolis were randomly selected. Clients and regulatory bodies were selected using purposive sampling. According to Walliman (2005), purposive sampling is a useful sampling method which allows a researcher to get information from a sample of the population that one thinks knows most about the subject matter.

### Data Collection Techniques

Among the available methods in collecting data two methods were adopted, these are literature review and questionnaires. Literature was reviewed to establish what others have documented on the subject matter. Useful information was collected from seminar and workshop papers, journal papers and internet sources. Questionnaires were used to gather information for the study. Forty three out of 60 questionnaires returned 40 were found fairly filled for the analysis.

### Analysis and Findings

The sample for this study is relatively small. As a result, the analysis had combined all groups of respondents (clients, consultants, contractors and regulatory boards) in order to obtain significant results. Data was analysed by calculating frequencies and Relative Importance Index (RII). The Relative Importance Index (RII) is calculated as follows:

$$RII = \Sigma W / A \times N$$

Where; W = weight given to each factor by respondents A = highest weight

N = total number of respondents.

For the purpose of this study A=4 and N=40. However, for the purpose of this study, amongst 40 returned questionnaires some of the causes and effects were not ranked thus N varies between 40 and 37. Relative Importance Indices (RII) comparison table was used to rank the results by taking into account the average scores and the RII as follows:

**Table 1:** Relative Importance (RII) Table

S/N	Average Score	RII	Ranking
1	4.0-5.0	0.80-1.00	High (H)
2	3.0-4.0	0.60-0.80	Medium (M)
3	1.0-3.0	0.20-0.60	Low (L)

**Source:** Chileshe, Haupt and Fester (2007)



### **Respondents Profile**

The proportion of the respondents comprised of 50% contractors, 32.5% consulting firms, 5% regulatory bodies and 12.5 clients. Majority of respondents (85%) have years of experience between 10 and 25.

### **Experience of Project Delays**

Delays in projects undertaking have been the order of the day. Clients, consultants and contractors have indicated that they have experienced delays in projects they were involved with varying degrees. In particular, 78%, 70% and 56 for clients, consultants and contractors respectively have had projects delayed.

### **Causes of Delays and Disruptions**

A number of causes of delays and disruptions in construction projects were listed for respondents to rank. Respondents were requested to rank these causes by using 4-point scale meaning 4= most important and 1= least important. The results are shown in Table 2 below. Results indicate seven highly ranked causes as design changes, delays in payment to contractors, information delays, funding problems, poor project management, compensation issues and disagreement on the valuation of work done. Other causes ranked as medium are: conflicts among the involved parties, project schedule changes, supply / procurement problems, bureaucracy, multiple projects by contractors and incompetent contractors. Some of these causes were identified in countries such as USA (Florida) changes in drawings (Ahmed et al, 2002), Malaysia inadequate client's finance and payments for completed work (Sambasivan and Soon, 2007). However, major causes of delays seem to differ significantly from one country to another. These results are important in stimulating researches on the subject matter in various parts of the world as to whether the causes of delays differ geographically. Though limited by the sample size, this study is an attempt to establish the status quo on the subject in Nigeria that can form a base for comparison with other parts of the world.

### **Effects of delays and disruptions**

Delays and disruptions have had a number of effects to construction projects. Respondents were requested to rank these effects by using 4-point scale meaning 4= most important and 1= least important. The results are as indicated in Table 3 below. Results indicate five highly ranked effects as time overrun, cost overrun, negative social impact, idling resources and disputes. These results are more less the same as those obtained by Kikwasi (2012), in Tanzanian construction industry and Sambasivan and Soon (2008) in Malaysian construction industry. On the other hand, medium ranked effects include: arbitration, delaying by the client to return the loans and poor quality of work due to hurry.

Effects of delays from literature and findings of this study seem to be more less the same. These results are important in future researches to observe trends. Again, this study forms baseline for future researches in Nigeria to monitor the changes in the effects of delays in construction projects.

**Table 2:** Respondents Ranking of Causes of Delays and Disruptions

S/N	Causes	N	RII	Rank
1	Design changes	40	0.91	1
2	Delays in payment to contractors	40	0.88	2
3	Information delays	40	0.87	3
4	Funding problems	40	0.86	4
5	Poor project management	40	0.84	5
6	Compensation issues	40	0.83	6
7	Disagreement on the valuation of work done	38	0.82	7
8	Conflicts among the involved parties	40	0.76	8
9	Project schedule changes	39	0.72	9
10	Supply and procurement problems	40	0.70	10
11	Bureaucracy	40	0.68	11
12	Multiple projects by contractors	39	0.63	12
13	Incompetent contractors	40	0.61	13
14	Contractual claims	40	0.56	14
15	Unexpected ground conditions	40	0.53	15
16	Government interference	38	0.49	16
17	Poor understanding of the project	40	0.48	17
18	Shortage of equipment	40	0.46	18
19	Shortage of materials	40	0.43	19
20	Unavailability of skilled workers	39	0.41	20
21	Acts of God	40	0.38	21

**Table 3:** Respondents Ranking of Effects of Delays and Disruptions

S/N	Causes	N	RII	Rank
1	Time overrun	40	0.91	1
2	Cost overrun	40	0.87	2
3	Negative social impact	40	0.84	3
4	Idling resources	40	0.82	4
5	Disputes	39	0.81	5
6	Arbitration	40	0.72	6
7	Delaying by the client to return the loans	38	0.67	7
8	Poor quality of work due to hurry	40	0.65	8
9	Delaying in getting profit by clients	39	0.54	9
10	Bankruptcy	37	0.53	10
11	Litigation	39	0.51	11
12	Create stress on contractors	40	0.47	12
13	Total abandonment	40	0.43	13
14	Acceleration losses	40	0.40	14

### Conclusions and Recommendation

The study concludes that there still exist a number of causes of delays and disruptions and their effects put the Nigerian construction industry at great risk that have an effect on their performance. These causes are: design changes, delays in payment to contractors, information delays, funding problems, poor project management, compensation issues and disagreement on the valuation of work done. Similarly, the effects of these delays are: time overrun, cost overrun, negative social impact, idling resources and disputes. It is therefore recommended that adequate construction budget, timely issuing of information, finalization of design and project management skills should be the main focus of the parties in project procurement process.

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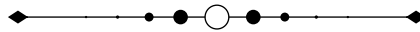
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## **Building Condition Survey and Systematic Defects Diagnosis on Library Building in Nigeria**

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### **Abstract**

The building under investigation is at Mai Idris Aloomo Polytechnic Geidam library situated in Yobe State North Eastern, Nigeria. The building is being occupied by large number of people many defects propelled were associated with cracks, discoloration, settlement, dampness, peeling, moisture and mold grow on the buildings besides environmental factors. These compelled the researcher to conduct the investigation to look into possible remedies in line with the bulk stage defects diagnostic that will be useful in identifying the aspect. The information gathered through survey of the affected building under investigation based on spatial severity degree of damages suffered on the buildings. Moreover; the analysis for the investigation is based on Assessment Rating system (BARIS) that provide very high-resolution to process the interferometric techniques. However, after a critical survey of the building facades from each side the researcher explore the major defects found on the building that are mostly attributed due to poor workmanship, general climatic conditions and practical inadequacy during construction. Therefore, the diagnosis will predict the overall judgement for the type of repair required.

**Keywords:** *Building defects, Investigation, Maintenance, Remedies, Building survey, Diagnosis condition.*

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### **Background to the Study**

A defect is a shortfall in performance occurring at any time in the life of the building, its components, and other important element. A defect shall be interpreted as a fault in an element or component of a building. For example, leaks at joints or tiles loose or collapsed suspended timber floor etc. Moreover, building diagnostics is the process of determining the causes and solution to the problems in building. More specifically building diagnostic are holistic process of data collection methods and techniques regarding inspection and analysis of future prediction.

A lot of defects propelled were associated with cracks, poor workmanship, settlement, dampness, peeling, and moisture and mold growth on the buildings besides environmental factors. Consequently, in controlling the defect that will make the building to improve its functionality. The major building components to identify are floor, ceiling, walls and roof that requires bulk stage of diagnosis. The detailed investigation will be analyse for further suggestion and recommendations that are applicable. Othman et al (2015) identified the building defect as a problem that may lead to other defects that can penetrate to other place in the building from either side of the facades of the building because of climatic condition and other environmental factors.

Chong (2006) in his work investigates groups of defects through physical survey conducted. However, critically the building facades from each side surveyed the major defects found were attributed to poor workmanship and general climatic conditions and practical inadequacy during construction. Peduto, *et al*, (2017) outline that, research requires deep knowledge on the different types of defect that deteriorates the structural surface based on physical and mechanical attributes. Furthermore, the information gathered on building through the survey process, on the spatial severity for the degree of damages suffered on the buildings. The diagnostic models use for this research is use based on the Building Assessment Rating System (BARIS) which, provide very high-resolution to process the interferometric techniques. The objectives of the research are therefore;

1. To investigate the physical severity of building defects minor and visible defects
2. To look for the possible remedies that result from survey findings.
3. To prepare the schedule of building condition SBC
4. To inspect the failure of the building that ruined the building condition

### **Statement of Problem**

Mai Idris Aloomaa polytechnic Library is associated with many defects that were being associated with various inadequacies which lead to poor user satisfaction. The inadequacies required extensive investigation. Essentially, there is need to provide accurate analysis of the defects report for proper maintainability. Therefore, the development of the investigation is expected to improve the current state of the building condition as seen in Fig: 1.



**Figure 1:** Showing main entrance and left side of the library building

### **Literature Review**

Building diagnosis has to be performed to make a judgment on the overall structural condition in terms of expected residual life and the repair needed. Kwan (2016) explain that, good knowledge of structural engineering, materials and testing. Hence, building diagnosticians should be recognised as professionals of a special discipline. It considers how the structure and equipment of a building relate to its environment, its occupants and the way the building is used, so as to develop a better understanding of building defects. According to International Council for Research and Innovation in Building and Construction (CIB) 1993, defects as the systematic study or treatment of building defects, their causes, their consequences and their remedies.

It requires a deep knowledge on the damage components in both visual and physical identification. Furthermore, gathering information and severity of damages and acquiring very high resolution images that will further supplement techniques in evaluation the severity of damages of building.

Once there is a crack, it is weaker than the surrounding wall and that leads to the possibility that pressures from outside will begin to bow that wall. Later shrinkage is caused by continuing hydration and carbonation (Rollings., 1993). Poor construction methods and workmanship is responsible for the failure of buildings and structure. The poor construction methods and workmanship is caused due to negligence and inadequate quality control at construction site (Ali et al 2011).

A diagnostic is the converse of a fault. It is a procedural guide leading from failure to error. According to Justin (2015) a diagnostic is the reasoning process an expert uses by attempting to ascertain the error that caused it. Thus, it relies more on the experience of the expert than the fault.

### **Methodology**

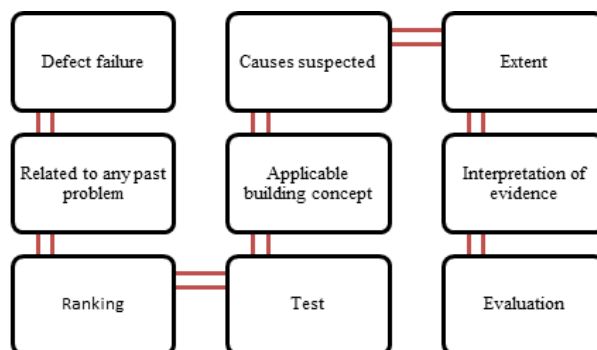
The methodology developed for this study aims to provide an objective and systematic method for the examination and evaluation of buildings prior to the execution of maintenance and rehabilitation activities. The data were collected from the survey and visual inspection from the main library building of Mai Idris Aloomo Polytechnic, Geidam in Yobe State Nigeria. The methodologies developed were based on the investigative process as indicated Fig 2,

before applying the diagnostic approach. However, targeting the real defect that were associated with the building facades, floor, wall, slab and the roof. The investigation indicates, systematic execution of the investigation that gives the background for the data required for the final evaluation analysis. The data was collected on inspection sheet from 01-06 to give out the preliminary results. The interpretation evidences of the defect presented on defect sheet respectively for the analysis.

### Investigation Process

The investigator must make every effort to include all pertinent observations in reports to avoid an accusation of subjectivity as shown in Fig 2. An investigator's background and area of expertise may skew his or her observations. For example, a ceramicist or brick expert may survey a problem building. Diagnostic sheets and checklists can be helpful in this effort. We acquire information by looking for evidence of high degree of deterioration, such as the presence of cracks, displacement, visible water, stains, rot, odours, and mold. Then we determine if the evidence is measurable and recordable (Justin 2015).

It involves the systematic examination of a component, element or system that is faulty or not performing adequately to determine its diagnosis and prognosis. Investigation methodology is the practices, procedures and techniques used to collect, store, analyse and present information and evidence that is obtained through a pathology investigation. The individual steps to perform these tasks may vary from case to case and depend on the types of defect and equipment used.



**Figure 2:** Investigative process

### Result and Discussion

With the complexity of technical issues in construction, the analysis suggests causes of the internal and external problem associated with the building. This analysis confirms the defects severity degree of the problem in the building. After successful building diagnostic, to find out the likely causes for the defect and fault in the building as shown Table 2 before suggesting appropriate remedial measures Peduto *et al*, 2017.

Defect description as indicated on defect sheet 1 shows vertical, horizontal & diagonal cracks in the wall & expansion cracks in the pavement around the building possible causes is due to loading problems, faulty construction method, thermal expansion and poor workmanship.

The analysis of the result has in line with (Bucx et al, 2015) in (Dario et al, 2017). The analysis of damages of building components and subsidence risk is that particular that are concern analysis is a difficult task. However, the defect description in 2 indicated the presence of brownish and blackish stains on the wall and the possible causes may be due to alkalis effect on plastering of wall, moisture effect on paint as pointed out in the study of (Othman., 2018). Moreover, defect description in sheet 3 shows significant voids at the joint between building wall and pavement around the building and the possible causes resulted from soil movement beneath the pavement aided by water seepage was in conformity with Peduto, *et al*, (2017). With the complexity in construction the defects severity degree in the building after a successful building diagnostic, find out the likely causes of the defect and fault in the building before suggesting appropriate remedial measures

Subsequently, defect description in sheet 4 indicate defect of paint peel off and the plaster peel off due to lack of adhesion between its material and the wall with possible causes. Thus, indicate the presence of so much moisture in the wall due to seepage and dampness. However, Igal (2003) emphasize that, diagnosis will provide grounds for the prioritization of maintenance activities that will focus on the investigative systems. Rehabilitation of the major failure in the building that require to be restored to its normal condition of the entire building to acceptable condition. This can be remedied by scrapping of the wall, treat dampness and re-plastered the wall.

Defect description in sheet 5 weeds and moulds grows in cracks and damp area. The possible causes resulted from dampness in wall and wind pollination. Othman et al (2015), Identified the defect areas where one problem may lead to other defects that can penetrate to other place in the building from either side of the facades of the building as a result of climatic condition. Moreover, this can be remedied by scraping the surface that is affected, treatment of the dampness, application of anti-moulds and anti-fungi on walls and Plastered the area that were affected by the defects.

Defect description in sheet 6 Paints and plaster swells up and detached from the wall as a result of dampness in wall the remedied should include scrapping of wall, treat dampness and re-plaster the wall. Critical thinking is Effective and efficient problem solving and professional judgment requires critical thinking. It's the cognitive link between diagnostics and best practice.

The overall judgement for the diagnostic approach in Table.1 showing the scheduling of the building condition (SBC) in the table summarises the defect, condition assessment (a), priority assessment (b), matrix annalistic (a x b), defect sheet and defect indication code respectively. Moreover, if the condition assessment range from 1-4 plain monitoring is required while if the condition assessment range from 5-12 condition monitoring is required and in the other hand if it ranges of the score is between 13-20 the building condition is red serious attention is needed to overhaul the whole building.

From table 1 the total marks (d) = sum of (c) 45 and number of defect (e) 11  
 Total score (d/e) is 4.09 and the overall building rating is FAIR this is the clear indication that with proper maintenance the building can still be use by the occupants but is subject to routine maintenance.

**Table 1:** Building Assessment Rating System (BARIS) For Mai Idris Aloomo Polytechnic Geidam and Scheduling of Building Condition (SBC).

Defects	Condition Assessment (a)	Priority Assessment (b)	Matrix Analysis(c) [a x b]	Defect Sheet	Defect Indication Code
Minor defect but can lead to serious defect if left unattended	3	2	6	001	U6
Functional, only cosmetic defects	4	3	12	002	2
Serious defect cannot function to an acceptable standard	4	3	12	003	U3
Minor defect but can lead to serious defect if left unattended	2	1	2	004	R2
Serious defect cannot function to an acceptable standard	3	3	9	005	U5
Minor defect but can lead to serious defect if left unattended	2	2	4	006	U6
Total marks (d) = sum of (c)			<b>45</b>		
Number of defect (e)			<b>11</b>		
Total score (d/e)			<b>4.09</b>		
Overall building rating			<b>FAIR</b>		

**Table 2:** Inspection sheet for the Library building of Mai Idris Alooma Polytechnic Geidam

S/N	Defect/failure	Causes suspected	Extent	Related to any past problem	Applicable building concept	Interpretation of evidence	Ranking	Test	Evaluation
1	<b>Crack</b> vertical horizontal on the wall. There are also crack on the pavement of the buildings	Loading, faulty construction, thermal expansion and poor workmanship	Minor visible on the facades but few inside	Extension/ conversion of the building	Crack treatment	The slab and the beam at the external wall are disjointed some walls not tie together during construction	1	Physical observation	The depth are not wide nor deep
2	<b>Discoloration</b> of wall	Alkalis effect & moisture effect on paint	Minor visible coloured stains on walls	Not known	Alkali treatment	There are blackish and brownish on the wall	6	Physical observation	It effect some areas usually touched by rain
3	<b>Settlement</b> in pavement around the building	Slight soil movement beneath the pavement	Medium	Not known	Reconstruction of pavement	The voids allow water to penetrate to the substructure and rise in the wall.it also aid the growth of vegetation in the joint between wall and pavement	3	Physical observation	There are voids at the joint between building walls and pavement but the foundation is not physically affected
4	<b>Mold growth</b> of vegetation	Dampness and presence of moisture in cracks	Medium	Not known	Crack treatment	Mold and weed growths in the crack that are moist	4	Physical observation	The weeds and mold growth in the areas that are moist
5	dampness	Water seeping in to the substructure from faulty pavement	Medium	Not known	Repair in plumbing work.Re-plaster of affected walls	The wall are wet, traces of water was seen and this allows the growth of vegetation the areas affected	2	Physical observation	
6	<b>Peeling</b> of paint and plastering	Dampness	Minor	Not known	Blocking of seepage to substructure, repair of leaking pipe, replastering and repainting	The paints are peeling off from the wall and the plastering are also peeling off from the wall	5	Physical observation	Defects only occur where the dampness is much

## Conclusion

A survey was conducted to quantify the relative effectiveness of external preview and internal inspection that are associated with defects. The method enables the determination of priorities based upon the performance of the entire building the assessment. The efficiency of maintenance operations requires deep diagnosis procedure of the surveyors with regard to the scales used for each building component.

The building is currently in use, although it has defects ranging from cracks, settlement, dampness, growth of vegetation, stains on wall due to moisture presence, Peeling of paint and plaster. The rating of the building using BARIS shows that the building condition is fair. Majority of the defects detected from the building does not threaten the life of the building at present but if left unattended to for a long time; it could have degenerated into structural defects and failure. Expert input and supervision is highly essential whenever the remedies are to be carried out.

## Recommendations

1. Some non-destructive test methods may be used for a quick and preliminary appraisal. These include: cover meter survey of concrete cover to steel rebar's, ultrasonic pulse



velocity tests for detecting voids and defects in concrete, rebound hammer tests for rough estimation of concrete strength, impact echo test for detecting delamination, infrared thermography for remote detection of delamination and/or water leakage, and surface penetration radar for detecting internal cracks and defects.

2. Inadequacies in the design does not mean only errors of computation, but a failure to take into account the loads the structure will carry, erroneous theories, reliance on inaccurate data, ignorance of the effect of repeated impulsive stresses, and improper choice of material or understanding of their properties.
3. Poor workmanship this includes substitution of inferior steel for specified one; bad riveting or even improper lightening torque of nuts, excessive use of the drift pin to make holes line up, bad welds, and other practices well known to the construction worker. This has been the most important cause of structural failures; the engineer is also at fault. Here, if inspection is not strict, severe or careful enough about work, rules or standard of behaviour should be maintain.

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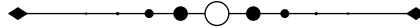
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Rollings, (1993). *Later shrinkage is caused by continuing hydration and carbonation.*

## An Overview of Construction Performance Measurement Toward Productivity Improvement

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### Abstract

The awareness of construction performance measurement which involves setting new operating targets and standards has been raised among majority of construction organizations. This is so because of the ever-increasing requirements and expectations of the clients which necessitated continuous improvement in the cost, timing and quality of construction output. Productivity as an important issue in any industry can only be improved when the effect of changes applied on method, effort and system that can be measured. This paper reviewed internal performance measurement which makes a construction organization focuses on identifying improvement areas within its structure through comparing its business operations with others who do it better, through setting new targets to meet. The paper identified key performance indicators of internal performance measurement which include; time, cost, quality, client satisfaction, effective communication, safety and health and risk management. Lastly, the paper reviewed external performance measurement which makes the construction industry as a whole attempt to improve its productivity through designing tools and techniques applicable to construction. The paper concluded that, in order to improve construction performance, it is essential to have accurate measurement reflecting current trends and practice toward effective productivity. The construction industries should effectively take up internal performance measurement and be more open to external performance measurements that have been successful in other industries and assess if adaptable to construction projects.

**Keywords:** *Construction Performance, Performance measurement, Productivity improvement*

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### **Background to the Study**

The construction industry deals with different key players who have massive effects on a nation's economy. These players include; consultants, clients and contractors, the roles play by stakeholders in the construction industry have effects on the performance of projects (Auma, 2014). The construction industry is one of the important economic sectors in the world, which bring opportunity as a source of employment for about 70% of the labour force, promoting the countries national economy (Amusan, 2016). In developing countries, efficient construction projects through deploying necessary performance criteria such as cost time and quality can contribute a solid platform for reviving the its economy, and for building a more balance and independent economy especially during stable political and economic conditions (Helen *et al.*, 2015).

In addition, performance of construction projects can be improved through knowledge in the construction industry, where men, materials, machinery, money and management work together to build a facility. This is because the capability in terms of efficient labour will be increased which in turn produce a quality facility that will satisfy the owner (Amade *et al.*, 2005). Furthermore, there is need for the construction industry to lay much emphasis on performance of construction project by focusing on the key factors bedevilling cost, time, quality, client satisfaction, productivity and health and safety performance, with the aim of counteracting its effect to the project construction (Jiboye, 2011).

### **Performance**

According to Henry (2012), performance is defined as the measure of the ability of contractors to execute work on time, cost and quality. There are numerous aspects to performance, and the purpose of getting most from the system is to keep each of the components in the same level, not allowing any of the operations to be delayed. Appelbaum *et al.* (2015), further defines performance as a successful achievement of an assigned undertakings measured against pre-set known recognised excellent of accuracy, accomplishment and within cost and time. In addition, the performance of construction project achieved its requirement, when it freed the contractor from all liabilities under the contact. Moreover, project performance is defined as attainment of estimated cost and time objectives while conforming to a project specification. Planning, formulating and implementation of complete strategic management practice in construction firms accelerate the rate of performance by ameliorating effectiveness, flexibility and efficiency (Dzeng and Wen, 2005). To perform is to take a complex series of actions that integrate skills and knowledge to produce a valuable result (Romero *et al.*, 2014). Project performance has been defined as the degree of achievement of certain effort or undertaking which relates to the prescribed goals or objectives that form the project parameters (Al-Dhaafri *et al.*, 2013).

### **Theory of Performance**

According to Auma (2014), theory of performance contributed six (6) foundational concepts that form a process which can be used to explain performance and performance improvements. Developing performance is a journey, whereby level of performance describes location in the journey (Golini *et al.*, 2014). However, current level of performance depends holistically on six (6) components which include; context, level of knowledge, levels of skills,

level of identity, personal factors, and fixed factors (Romero *et al.*, 2014). These levels of performance are proposed for effective performance improvements through a performer's mindset, immersion in an enriching environment, and engagement in reflective practice.

### **Key Performance Indicators (KPIs)**

According to Ali *et al.* (2013), Key Performance Indicators (KPIs) is defined as a gathering of measured data to examine the rate of performance of activities. In addition, Key Performance Indicators (KPIs) are instruments that the head of organisation uses to evaluate the performance of worker base on the specific activity. However, these assessments measure the actual and estimated performance based on efficacy, quality of workmanship and effectiveness. The aim of KPIs in project construction is to provide evaluation of project's and company's performance in the entire construction process (Iyer and Jha, 2005). In addition, the information obtained can therefore be utilised for benchmarking purposes, and will be regarded as an important ingredient toward achieving the company's best practice (Horta *et al.*, 2009).

Construction projects are unique in nature and involve different activities and handling process in one way or another. This often led to problems for even the most skilful project managers (Pheng and Chuan, 2006). Therefore, project performance can be measured by using a different number of performance indicators that could be related to different aspect (groups) such as time, cost, quality, client satisfaction, client changes, business performance, health and safety (Akanni *et al.*, 2015). Cheung *et al.* (2004) enumerated various key performance indicators groups affecting project performance such as time, cost, quality, client satisfaction, client changes, and safety and Health. Iyer and Jha (2005), argued that cost, time, quality, productivity, client satisfaction, safety and health, people, innovation and learning and environment as a key indicators main group affecting performance.

### **Performance Criteria of Construction Project**

According to Idrus *et al.* (2011), the concept of construction project performance is regarded as criteria for measuring the success of project outcome and it depend on the construction companies to select what they anticipated would provide the best to sustain their construction activities now and in future. Thus, it is essential to know which of the criteria the project parties should be adopted in practice during project execution to examine the performance of their construction projects. Hence, the outcome of the evaluation will be used by the project parties to enhance performance while attaining the success of the project (Egemen and Mohammed, 2006). Ajeet *al.* (2009) identified the following as construction project performance criteria:

### **Project Team Relationship**

According to Pheng and Chuan, (2006), project team is defined as a group of people where their individual members have willingness to work as a team in order generate the required result by using the parent's organisation resources. In addition to this, human factor was found to be worthy in sustaining the performance of construction project. Moreover, attitude of employees has important impact toward achieving individual task performance in construction organisation. Motivation of employees and recruitment of competent staff play

an important role in attaining the performance of an organisation (Mamman and Omozokpia, 2014). Inadequate skills of manpower, insufficient supervision and lack of site management, unsuitable leadership, inadequate and breakdown of equipment among others were regarded by (Pheng and Chuan, 2006) as factors that deserved to be given attention during execution of project. However, they are the same factors contributed to delays especially in the United Arab Emirates.

### **Construction Time**

Pheng and Chuan (2006), remarked that people, cost, time, quality, health and safety, environment, client satisfaction and communication as a major criterion that should be given much priorities in order to attain the project objective. According to Memon *et al.* (2012), unavailability of resources, insufficient planned time of construction, and supply of the defective materials are among the factors contributed to delay during project execution. Moreover, site preparation should be carried out ahead of project commencing, so that not to alter the planned time or sequence of operations during construction of project (Sweis, 2013). Ahadzie and Olomolaiye (2008), established that quality and attitude to service are some of the key factors constraining successful project delivery in South Africa. Aje *et al.* (2009) argued that construction time is very essential as it usually form a basis for crucial benchmarking in evaluating the performance of construction project and the effectiveness of project firm.

### **Management Capabilities**

Capability Management is an approach to the management of a firm based on the theory of the organisation, especially a business organisation or construction firm. It is a gathering of capabilities that may be utilised to gain income return on investment in the market perspective and make the firm to have competitive advantage over their rivals (Belov, 2013). Capability Management is striving to manage the available capabilities within the organisation with the aim of ensuring maximum consideration is given to its status in the firm and its on-going advantage and survival (Simon *et al.*, 2013). According to Forbes and Ahmed (2010), modelling and simulating of realistic strategic, scenarios and contexts from others have been helpful to management capability in construction organisation particularly in handling business process and decision making. Through these considerations and practices, the company and its performance can be incessantly evaluated and projected into the future.

### **Complexity of Project**

Carter and Smith (2006) remarked that, majority of the large and complex construction projects are associated with significant cost and schedule overruns. The complexity of a project is increasing as project size increases. Therefore, the rate of complexity in projects during construction is based on a magnitude of project. It often leads to difficulties in the coordinating contractors (Wang and Huang, 2006). However, in rating the success factors criteria, project managers in project that has enormous complexity in comparison with project of average complexity. It was found that in projects of average complexity managers were rated significantly higher importance than a project of medium complexity and especially on their own performance criteria and achieving customer needs (Muller and Turner, 2007).



### **Job Condition Related Variables**

According to Pheng and Chuan (2006), enumerated the criteria under the job condition related variables that are involve during construction of projects which required much attention such as team relationship, wages, job satisfaction, cost control, job security, working hours and adequacy of architectural drawings. Moreover, attitude of employees and Leaders, recruitment of competence employees and development, motivation of employees as well as attitude of employees were regarded as criteria for employee's performance during execution of project (Khan *et al.*, 2014).

### **Time Availability**

Availability of time in construction of project according to Yang (2013), can be defined as the availability of time required to execute the allotted task within the schedule. Time is a resource that cannot be seen or touch because of its unique and finite in nature, proper utilisation of time is an important practice to the firms that can contribute toward successful completion of project within the stipulated duration (Yang, 2013). Project construction can only achieve the time performance when the planned time is sufficient, proper planning and adequate resources are put in place (Moura *et al.*, 2007). Therefore, any project that fails in terms of planned time of construction is failed in performance. Time, cost and quality are referring to as golden triangle which regarded as some necessary criteria toward achieving project performance as it was always included in any project performance assessment (Idrus *et al.*, 2011).

### **Materials and Supplies of Project**

According to Omoregie and Radfort (2005), material procurement is an important activity in the construction industry that consume much productive working time, material and supplies affect the time performance of construction since it often takes longer time during construction of projects. Moreover, shortage of materials, fluctuation price of materials, and unavailability of resources and supply of defective materials were regarded as factors affecting both cost and quality during project execution (Enhassi *et al.*, 2009).

### **Standard of Quality**

According to Schwalbe (2013), project quality management is a practice which when employ will convey the project to the promise land by meeting its intended purposes. Conversely, failure for a project to achieve the standard of quality required, project is said have been failed in performance. Construction of projects is also anticipated to achieve standard quality despite the incessant challenges of performance in the construction industry. Conformance to specification, proper monitoring and feedback and adequate involvement of owner during construction are among the major criteria for quality performance that need much attention in order to overcome challenges associated with project quality (Iyer and Jha, 2006).

### **Relationship with Clients**

Maintaining good relationship with client is one of the performance criteria of construction project. Securing client is an evidence of a good performance. It is a business strategy that is used to maintain and sustain long-term client relationships (Maister, 2007). According to Bolton and Tarasa (2007), companies are incessantly laying emphasis on managing customer

relationships, the customer asset, or customer value. In addition, Customer Relationship Management (CRM) specifically acknowledged the long-run degree of firm's potentiality which plays a prominent role in increasing income return of an investment, profits, and shareholder value through goal of marketing operations directed toward developing, maintaining and improving fruitful and effective company-customer relationships. Since revenue or return on investment is absolutely a basis for evaluating the firm performance and it depend on the management of relationship with customers (Maister, 2007). Therefore, without a thorough knowledge of how the relational management procedures between the firm and customer cannot be sustained, success from Customer Relation Management (CRM) initiatives will be rarely seen (Akerlund, 2005).

### **Strategies to Improve Construction Project Performance**

There are several strategies that can be recommended to be used by both contractors and consultants in order to overcome or mitigate the effect of poor performance during projects execution. These are; time management practice, quality management practice, cost management practice, client satisfaction management practice, safety management practice, risk management practice and effective communication practice.

#### **Time Management Practice**

According to Memon *et al.* (2014), time improving practice involves proper planning work closes monitoring and committed to leadership and management, which required to be deployed during execution of project to avert the occurrence of time overrun. However, completion of project within the stipulated time is often considered by clients, contractors, and consultants as a major criterion toward achieving project performance (Bowen *et al.*, 2012). However, it is apparent that effective time management in entire project management concept is all about planning, scheduling, monitoring, control, and reporting as well as conducting decisions on what need to be changed and their implementation during construction of project (Kerzner, 2013).

An effective time management that consists of establishment of the planned sequence of works, application of logic to planned activities and estimating the duration of planned activities play an important role during construction of project because it manages the risk of the delayed completion project (Chin and Hamid, 2015). Moreover, time management practice is needed during construction to maintain proper allocation of time in carrying out project construction throughout the entire successive stages of its natural life-cycle, (i.e., concept, development, execution, and finishing) by means of a number of processes of time planning, time estimating, time scheduling and schedule control (PMBOK Guide, 2008).

#### **Quality Management Practice**

According to Auma, (2014), quality improving practice that are found worthy while execution of projects is; quality of workmanship, proper sampling and testing, and maintaining sequence of construction. In addition, for adequate quality of workmanship to achieve, it is necessary for the workers to exhibit commitment by adhering to quality standard. Elghamrawy and Shibayama (2008), identified customer focus, team work, continuous improvement, management commitment, partnering, employee involvement and effective communication

as important focal points of Total Quality Management (TQM). However, quality management practice in construction is a distinct feature that needs to be given much attention in any construction work. It is regarded as holistic approach to manage a project, and it pays in ensuring effort to achieve and improve the required standard of quality through well planning and organising of projects so as to obtain customer's satisfaction, provides value for money and fit for purpose. Quality management process needs to be implemented in the entire project lifecycle of any project in order to achieve the desired level of quality as planned. Tang *et al.* (2016) remarked that, the purpose of quality assurance and control in construction of project is to quest for successful achievements of all quality requirements in order to attain a desired result at the end of the project construction by ensuring adherence to the actual design and planning decisions, technical and project specifications, codes and standards and statutory stipulations.

### **Client Satisfaction Management Practice**

Client's management practice involves meeting project deadline, within the estimated cost and achieving the quality needed. Therefore, it is necessary to ensure that, the project is closed out within the stipulated time in order to avoid cost escalation, and hence satisfy client's objectives (Bowen *et al.*, 2012). Furthermore, client satisfaction is achieved through improvement of quality which will result to superior product and service quality. Maintaining the quality during construction of project is found worthy to a company by obtaining competitive advantages through satisfying customer needs when delivering quality product to the market place (Leong *et al.*, 2014). Moreover, quality improvement effort during construction will lead to a higher product and service quality, which will contribute toward improving customer satisfaction (Egemen and Mohamed, 2006). They further argued that implementation of Total Quality Management (TQM) is positively associated with homebuyer satisfaction. According to Karna *et al.* (2004) effective implementation of agreed quality assurance procedures such as; use of quality material and adherence to specification is an important aspect of quality management in construction industry.

### **Safety Management Practice**

According to Hassanein *et al.* (2007), safety orientation and training is regarded as safe work procedures to all workers and particularly to new entrants toward safety work in construction. It must be ascertained that workers do use safety devices and follow safe procedures of work. In addition, retraining and reorienting workers to use safe work procedures contributes directly to safer site performances. Management and planning during project construction is one the necessary tasks to be considered when avoiding unplanned events. Since accidents are unplanned events, an effective safety management can help avoid job injuries. Safety management should be carried out thoroughly, and must be enforced to all categories of the job right from initial stage of the project up to the time last worker will vacate construction site at the completion of the project. Risk Management Practice

According to Banaitiene and Banaitis (2012), effective risk management is an essential element leading to success of management strategy. The advantage of implementing effective risk management involves recognising and analysing the risks, improvement of construction process and efficient utilisation of resources to achieve project performance (Eskesen *et al.*,

2004). Moreover, Nieto-Morote and Ruz-Vila (2011) remarked that, effective risk management practice facilitates achieving success in projects construction; it involves risk identification, risk assessment, risk response and risk monitoring and reviewing. In order to achieve project objectives, the portfolio of risks connected with all players throughout the project life cycle should be given utmost consideration (Cleland and Gareis, 2006).

### **Cost Management Practice**

Managing construction cost effectively is one of the essential undertaken toward a successful project completion. Cost management process is regarded as a necessary activity during project execution because when properly adopt, it will ensure that the existing planned design and procurement of a project in respect of cost of construction achieve value for money and clients' target (Potts and Ankrah, 2014). According to Memon *et al.* (2012), the cost management practice required to be given attention for managing the budget of project are; proper project planning and scheduling, effective site management and supervision, frequent progress meeting and effective strategic planning. They further added that, effective site management and supervision is a cost management practice that involves planning, organizing of resources as well as controlling the productivity and progress of employees toward executing the project within a budget (Memon *et al.*, 2012).

### **Effective Communication Practice**

According to Dainty and Murray (2007), establish clear lines of communication; choose the most effective communication method for your team and make concise, clear communication points to get team members understood are regarded as strategies to improve communication during construction of project. However, effective communication is vitally important for maintaining the support and commitment of all members in the organisation. Effective communication with all members of the project team is necessary in order to achieve project success (Yang *et al.*, 2009). According to Westland (2007), project managers should have skills of negotiation and communication and ability to manage individual stakeholder's expectations and generate an important culture change throughout the organisation with aim at achieving project performance.

### **Conclusion**

The recent growth of interest in benchmarking as it relates to successful project performance can be ambiguous and becomes extremely complicated if all the parameters are not studied and the most important one identified. It is difficult to give an unequivocal verdict on the success or failure of a project, as some criteria are successfully met while others are not. In addition, the different perspectives of key players in the development of a construction project will explain the reason why one could consider the same project as being both partly successful and partly unsuccessful. It would be ideal if a project could result in an overall win-win situation for all parties involved, but in reality, the ideal seldom happens. The framework for performance indicators for successful construction project performance, documented in this reviewed paper, is a topic of contemporary research. The overall objective of the investigation is to develop a robust framework for benchmarking construction project development that reasonably takes into account the stakeholders' objectives, their expectations and priorities for the project.

## Recommendations

It is evident that, for a project to achieve golden triangle, there is need for project parties to focus on meeting the stipulated time, cost and quality requirement. It has become necessary to improve construction project performance in developing countries. This could also grant the construction industry the ability to extend beyond the current state of GDP's contribution to many nations. Therefore, the following recommendations were put forth:

- i. In order counteract the effect fluctuation of price of material during construction of projects, it is recommended that, contractor should strive hard to ensure that project deadline is not exceeded, so that to avoid fluctuation of material price that can leads to variation and fluctuation claim.
- ii. Consultant of a project should intensify effort particularly on monitoring and feedback in order to ensure that specification given in a particular project is completely adhered to.
- iii. A standard material with reference and catalogue number of the company specified to be used should be procured, erected and installed by the contractor under the supervision of consultants in order to avoid rework and time overrun.
- iv. Due process office of procurement unit should re-energize their effort in supervising the procurement activities in the construction industries, and to enforce the use of code of ethics while selecting the contractors.
- v. Human resources play a prominent role toward achieving quality and productivity performance of construction project. It is therefore recommended that; the productivity of human resources should be enhanced in the construction industry through proper and continuous training programs to improve employee's performance.

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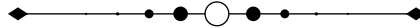
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## The Impact of Innovation on Small and Medium Enterprises Growth

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### Abstract

The role of Innovation on small and medium enterprises (SMEs) growth is inevitable in any form of business organisation. Innovation has to do with a new idea, creative thought, and new imaginations of device of production of new product to add value to its customer. Innovation save as rebirth of product and reintroduce product in new look. This study has assessed the impact of investment and technological innovation in growth of SMEs in Yobe State Nigeria. Structured questionnaire was used to gather the data; random sampling method were also adopted in surveying the 150 number of respondent. The finding shows significant relationship between innovation of product and production device and small and medium Growth, the result shows there is a relationship and the relationship is medium and positive. Moreover, therefore there is impact of both investment and technological innovation on small and medium enterprises Growth The innovation has highly increase the growth of the enterprises. The study also recommends the government to consider and increase funds being allocated to grow the SMEs to make more innovations.

**Keywords:** *Innovation, Growth small and medium enterprises and Performance*

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### **Background to the Study**

Innovation became paramount important in entrepreneurship development globally, due to importance attached to innovation both government and private enterprises are allocating resources to innovation and further growth of their organisations. Kater, (2006). Innovation has to with business activities with use of high tech facilities to come out of new product and services with improved quality at appropriate cost, (Rose et al., 2009). The researcher focus on technological innovation, it has been defined as the technical process through which new and improved technologies are developed or used to produce qualitative product are produced, (Lee, Et al, 2011). Moreover, SMEs are widely recognized as power house of economic development in Nigeria and African in general, due to important attached to it is dominating the policy and debates of today managerial research. It also had been stimulating growth the SMEs development, (Obeng, 2009). Cambridge Small Business Research Centre on useful insight of research found that, SMEs are very significant to any nation's Economy, these SMEs face harsh situation leading some of them failing to survival and growth to become large corporate entities. One of the key salvage of such a situation is innovation. With this technological era no nation can survive without innovation, innovation found to be globally non-negotiable. Purcarea et al., (2013) found that both in Asia and Europe innovation lead to reduction in number of employers in firms.

### **Literature Review**

Innovativeness is a process of creating, introducing new product and services through technological activities (Micheal, et al., 2015). It is the process of coming out with a new product, service or technology by using the new idea, experiment and creation process (Kreiser and Davis, 2010). The entrepreneur should not spend much on innovation to the extent of losing profit.

### **SMEs Performance**

Measuring the firm's performance is a great challenging issue in research due to the complexity and different approaches to measuring the performance. Profitability is a great issue used to measure the performance of the firm since the business is set up for the purpose. Penrose, (1959) defined firm performance as the extent to which enterprises achieved its organisational or financial goal. Therefore, firm performance represents the success of the firm. The performance of a firm is the process by which a particular firm's success is in the market, which may have a different outcome (Mika, 2003). Profit is the best determinant of accessing whether an organisation is successful or not by considering the economic value added; real economic profit is the performance indicator, but cost should be taken into account, (Tulvinschi, 2013). One of the major concerns in a business is performance; therefore it is the ability of the business to produce an acceptable outcome.

### **Innovativeness and SME Growth (Hypothesis)**

- H1: There is significant relationship between investment innovativeness and SMEs Performance among the respondents.
- H2: There is significant relationship between technological innovativeness and SMEs Performance among the respondents.

Previous studies support that SMEs that innovate their products and services and modify or come out with a new product, the patronage of the goods and service will increase. Therefore, their sales and profit will be highly increased. Many researchers have found empirical evidence in their studies (Kreiser et al., 2013; Abu Bakar and Zainol, 2015; Ngugi, Mcorege and Muiru, 2013). Equally, Raud et al. (2009) in their conceptual paper found that the majority of the researcher is in favour of innovation as significance to performance, but only a few opposed. Furthermore, other researchers found innovation as an insignificant predictor of SMEs performance. Kraus, et al. (2012) pointed out that risk-taking is a dimension of entrepreneur orientation that guides the entrepreneur to engage in uncertain investments as opposed to the fear of collapse. Moreover, innovation found it not to be a contributor to the SME performance in the empirical study of Sadik, Mohamad and Nasir (2016). With the above findings, this study proposed the below hypothesis.

### Methodology

In order to identify the relationship between investment and technological innovation and SMEs performance this study employs regression model with two predicting variable name investment innovation and technological innovation. Investment innovation ( $X_1$ ), technological innovation ( $X_2$ ). The independent variable (IV) are investment innovation and technology innovation while the dependent variable (DV) is SMEs Growth.

$$\hat{Y} = b_0 + b_1X_1 + b_2X_2 + e_i \dots \dots \dots (1)$$

Where:

- $\hat{Y}$  = SMEs Growth;
- $B_0$  = constant
- $B_{1,2}$  = regression coefficient
- $X_1$  = investment innovation;
- $X_2$  = technological innovation
- $e_i$  = Random error.;

The population of the study consist of Small and Medium enterprises in Yobe state Nigeria. And sample of 150 where selected using (Cochran's, 1997) sampling method.

### Research Instrument

A Questionnaire has been used as an instrument for the collection of research data. A questionnaire is used because the population is large, the time for the data collection expected is limited and some of the data required can only be extracted systematically by using questionnaire (Robbins et al., 1969).

### Result and Analysis

- H1: There is significant relationship between investment innovativeness and SMEs Growth among the respondents.
- H2: There is significant relationship between technological innovativeness and SMEs Growth among the respondents.



Table 1 below revealed that, there is a significant high and positive relationship between investment innovativeness and SMEs Growth ( $r = .568, p < .05$ ), so,  $H1$  is accepted. This finding indicated that, higher SMEs Growth is associated with higher investment innovativeness among the respondents due to direct relationship between the two variables. While the technological innovation and SMEs Growth ( $r = .615, p < .05$ ), so,  $H2$  is also accepted. It was also confirmed by Kreiser, et al (2013) but contrary to finding of Kraus, et al (2012).

**Table 1:** Relationship between independent variables and SMEs Growth

Variable	Y	X <sub>1</sub>	X <sub>2</sub>
Y (SMEs Performance)	1		
X <sub>1</sub> investment (Innovativeness)	.568**	1	
X <sub>2</sub> (technological innovation)	.615**	.556**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

### Conclusion

This study was conducted to investigate the role of investment and technological innovation to small and medium enterprises (SMEs) growth, the result found that there is positive impact of innovation on the Growth of SMES in Yobe state, Nigeria more especial in term of investment and technological innovation, the have positive inputs in to the efficiency of the firm other than the of cost. The cost implication has to do with production cost that will improve the output. The purpose of this research is to find out the impact of innovation on SMEs growth in north east, based on literatures the is relationship between SMEs growth and innovation worldwide, furfure more the outcome of this study also give strong relationship between innovation and SMEs Performs. Finally, it is recommended of further studies on innovation and SMEs Growth in the other States of the country.

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# The Role of Dividend Policy in Determining the Market Value of Share of Listed Industrial Goods Companies in Nigeria

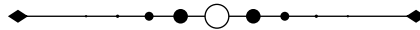
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## Abstract

This study examines the role of dividend policy in determining the market value of share of listed industrial goods companies in Nigeria, the research design used as a guide is ex-post facto method, as the study entails the use of annual reports and accounts of listed industrial goods companies in the Nigerian Stock Exchange (NSE). The secondary data were sourced from the company's financial report for the period of five years from 2013 to 2017 contained in company's annual reports and account and all were used to compute the dependent variable (share price) while dividend payout ratio and dividend yield as proxies of independent variable respectively. Regression analysis is use establish the relationship between the variables by using Statistical Software (SPSS). The result showed that there is no positive significant relationship between dividend payout ratio, dividend yield and share price of listed industrial goods companies in the Nigeria. Based on findings the study recommends that the existing investors in the Nigerian industrial goods sector should from time to time; ensure extensive and critical evaluation of dividend policy as it can significantly influence their market value which has ultimate effect on the investments.

**Keywords:** *Dividend Policy, Market Value, Industrial Goods, Share Price, Dividend Payout Ratio*

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### **Background to the Study**

Dividend policy has been an issue of interest in financial literature since Joint Stock Companies came into existence. Dividend policy is a deliberate policy to maintain or increase dividend at a certain level with the ultimate aim of sustaining the price of the shares on the stock exchange. This is because capital markets are not perfect, and even though shareholders are indifferent between dividend and retained earnings due to market imperfections and uncertainty, they however, give a higher value to the current year dividend than the future dividend and capital gains (Simon, John, Jonah, Julius and Patrick, 2012). Dividend policy depends on investor's desire for capital gains as opposed to income, their willingness to forgo dividend now for future returns, and their perception of the risk associated with postponement of returns (Adefila, 2010).

The financial crisis that has been wreaking havoc in markets in the U.S. and across the world since August 2007 had its origins in an asset price bubble that interacted with new kinds of financial innovations that masked risk and with regulators and supervisors that failed to restrain excessive risk taking. The financial crisis has brought about major uncertainty; however financial directors of companies are still required to make decisions with regard to payout policy, with absolute certainty (Blundell-Wignall et al, 2009).

Various firms adopt dividend policy depending on the company's articles of association, memorandum of association (in some situation) and the prevailing economic situation. Some make high pay out, while others make low pay out and yet others pay stock dividends (bonus issue) in lieu of or in addition to cash dividend while others pay cash only. All in a bid to maximize shareholders' wealth which, in this case, is the market value of the firm's common stock (Adefila, 2010). A company pays dividend to reward existing shareholders and encourage others that are prospective shareholders to buy new issues of the common stock at high price.

Investors in developing countries like Nigeria mostly look at the profitability of the firm while purchasing equity shares from the secondary market. Since dividend paid to the shareholders is one of the best indicators of profitability, it is generally believed that dividend plays a crucial role in determining market price of the corporate share (Okafor and Mgbame, 2011).

The company generally pays stock dividend if it plans to increase the capital so as to expand the business. The primary objective of dividend policy should be to maximize the shareholders return so that the value of their investment is maximized. The firm issues equity shares to raise ownership capital and the investors buy them with the ultimate expectation to receive a share of profit as well as enjoy capital appreciation. The value of the firm is said to be high when the share price of the company's common stock is higher (Ashamu, Abiola, and Bbadmus, 2012). Firms that perform better than others are expected to have higher share prices and can raise additional funds (both debt and equity) in more favourable contractual terms at the capital market than the others.

Traditionally, managers pay attention to their choice of the dividend policy for the firm since they believe that dividend policy influence the value of their company and hence the wealth of

their shareholders. Value is important for both companies listed on the stock exchange and those not listed (Gladys, 2007). Modigliani and Miller (1961) demonstrated the irrelevance of dividend policy under a set of assumption, that is, dividend policy has no effect on share prices. But when these assumptions are relaxed, the theory begins to disintegrate. Moreover, it has been discovered that the dividend policy of a firm always has short term or long term effect on the market price of its shares. It is against this background that, this study aimed at examining the role of dividend policy in determining the market value of share of listed industrial goods companies in the Nigeria Stock Exchange.

### **Statement of the Research Problem**

Maximizing shareholders' wealth is one of the most important objectives that a management tries to achieve by adopting specific administrative and finance policies. Ward (1993), has added another dimension to the differences in implementing these financial and management policies. According to him, these financial and management policies apply to the dividends policy as one of these financial policies that are applied in a company, no matter the type they represent or what activities they undertake. The policies include the residual dividend policy, dividend stability policy and hybrid dividend policy. Companies using the residual dividend policy choose to rely on internally generated equity to finance any project. As a result, dividend payment can come out of the residual or leftover equity only after all project capital requirements are met. On the other hand, the fluctuation of dividends created by the residual policy significantly contrasts with the certainty of the dividend stability policy. With the stability policy, quarterly dividends are set at a fraction of yearly earnings. This policy reduces uncertainty for investors and provides them with income. The final approach is a combination between the residual and stable dividend policy (the hybrid dividend policy) using this approach, companies tend to view the debt/equity ratio as a long-term rather than a short-term goal (Ward, 1993).

A number of studies have been conducted on the relationship between dividend policy and share price, the most notable of which is Miller and Modigliani's study (1961) which has set up the foundation for what is known as the Irrelevant Theory. Some scholars argue that dividend policy is irrelevant (Miller and Modigliani, 1961) whereas others view it otherwise. Two basic schools of thought on dividend policy have been expressed in the theoretical literature. One school, associated with Gordon and Lintner (1962), among others who hold that the capital gains expected to result from earnings retention are riskier than the dividend expectations. The other school associated with Miller and Modigliani (1961) holds that investors are basically indifferent to returns in form of dividends or capital gains. When firms raise or lower their dividends, the share prices tend to rise or fall in like manner; and there is the likelihood that investors prefer dividends but Miller and Modigliani (1961), argue that they do not. They argue that any effect of change dividends has on the share price of firm's stock is related primarily to information about expected future earnings conveyed by a change in dividends (Weston and Brigham, 1981). To the best knowledge of the researcher, no study was conducted in recent time covering the listed industrial goods companies in the Nigeria Stock exchange. Therefore, this study will attempt to fill the gap in literature by examining the role of dividend policy in determining the market value of share of listed industrial goods companies in the Nigeria Stock Exchange. Thus the problem of a clear cut empirical analysis and the mix findings on the impact of dividend policy on the market value of share stimulated this research.



### **Objective of the Study**

The aim of this study is to examine the role of dividend policy in determining the market value of share of listed industrial goods companies in the Nigeria. Other specific objectives are to:

1. Examine the relationship between Dividend Payout Ratio (DPR) and Share Price (SP) of listed industrial goods companies in the Nigeria.
2. Examine the relationship between Dividend Yield (DY) and Share Price (SP) of listed industrial goods companies in the Nigeria.

### **Research Hypotheses**

Based on the above objectives the following null hypotheses were formulated.

- $H_{01}$  There is no positive significant relationship between Dividend Payout Ratio (DPR) and Share Price (SP) of listed industrial goods companies in the Nigeria.
- $H_{02}$  There is no positive significant relationship between Dividend Yield (DY) and Share Price (SP) of listed industrial goods companies in the Nigeria

### **Literature Review**

#### **The Concept of Dividend Policy**

The concept of dividend has been defined by many authors and researchers. Bierman (2001), and Baker, Powell and Veit (2002), have described it as an appropriation of profits to shareholders after deducting tax and fixed interest obligations on debt capital. Dividends are returns to shareholders from company earnings. A dividend is a cash payment from a company's earnings announced by a company's board of directors and distributed among stockholders. Therefore, dividends can be paid in cash, products or as additional shares of stock. Stock dividends increase the number of shares outstanding and tend to generally reduce the price of each. Dividends can be announced at regular dividends to be paid at regular intervals or as a special dividend, paid only once. Liquidating dividends exceed earnings and might be paid to resolve part or the entire firm. Dividend policy, which involves itself in determining the amount to be paid to the shareholders and that to be retained in the company for future reinvestment in profitable projects or for other justifiable needs is one of the cardinal issues involved in financial management (Oyinlola and Ajeigbe, 2014). The importance of dividend policy in the business world cannot be over-emphasized.

#### **Review of Empirical Studies**

Aribaba, Ahmodu, Ogbeide and Olaleye (2017), examined the impact of dividend Policy and Share Price Changes in the Stock Market: Evidence from Nigeria. The study employed the ex-post facto research design. A sample of 15 companies were examined between 2008- 2014 financial year using panel Estimated Generalized Least Squares (EGLS) regression with fixed effect. In the study Share price is the dependent variable while dividend policy, dividend yield, dividend payout, earnings per share, dividend per share and firm size are the independent variables. The study found dividend policy and dividend yield contributed to share price reduction and were not statistically significant. The effect of dividend per share was negative and was statistically not significant across the Quoted firms. Earnings per share were observed to result to positively engender share price changes was not statistically significant; dividend pay-out and firm size positively influence changes of share prices of the quoted companies in Nigerian Stock Market.

Bellal and Asaduzzaman (2017), examined the Impact of Dividend Policy on Stock Price: A Study of Fuel, Power and Cement Industry in Bangladesh. The study used secondary data sourced from the companies in Dhaka Stock Exchange. All 24 companies belong to Fuel, Power and Cement industry listed at DSEX index were included as the sample for a phase from 2000 to 2016. In the study, Fixed Effect Model along with Random Effect Model was used to estimate outcomes. Both Models were exercised on panel data. In the study Stock Price Volatility (SPV) is the dependent variables while Cash dividend, stock dividend, profit after tax, earnings per share, return on equity, growth assets and dividend payout ratio are the independent variables. After adjusting several variables including Earnings per Share, logarithm value of Profit after Tax, Growth of Asset and Dividend Payout Ratio. The study also checked both the Models and found Random Effect Model was more significant than Fixed Effect Model. Afterward, the study applied the multicollinearity test to determine was there any correlation among the variables and found no multicollinearity. The study found a weak form market exists in Bangladesh and investors choose stock dividend more than the cash dividend.

Kehinde, Uwalomwa, Olubukola, Osariemen and Sylvester (2017), examine the impact of dividend Policy on Share Price Valuation in Nigerian Banks. The study covered Ten year period using secondary source data from published financial statements of Access Bank, First Bank, United Bank for Africa and Guarantee Trust Bank. The Study Employed the Ordinary Least Square (OLS) Regression Model for analyzing the data obtained. The study used Market Price per Share (MPS) as the dependent variable while Earnings per Share (EPS), Dividend Yield (DY) and Retention Ratio (RR) are the independent variables of the study.

Puja (2017), examine the impact of Dividend Policy on Share Price of Nabil Bank Ltd. The study used secondary which are mainly quantitative and analysis has been carried out by using simple percentage and statistical tools like as line diagram, pie charts, time line. Market price per share before and after are the dependent and independent variables used in the study. The growth of bank has been increasing and sufficient during the study period. Similarly total sum assured has been positive but fluctuating over the period under study.

Rozaimah, Nurul and Chee (2017). Investigated the relationship between Dividend policy and stock price volatility (SPV) of industrial products firms in Malaysia. The study used secondary data. The sample comprises 166 industrial products public-listed firms covering a time span from year 2003 to 2012. Baskin's framework, firm's SPV (1989). Descriptive statistics, correlation and regression were used for data analysis. The study take Share price volatility as the dependent variable and Dividend per share, dividend payout are the independent variables used while Earnings volatility, firm size, leverage and growth of assets are the control variable in the study. The result showed that earning volatility significantly explains stock price volatility of industrial product firms during the crisis period, while dividend payout ratio predominantly influences volatility during pre- and post-crisis sub-periods. The empirical results indicated that dividend policy was a strong predictor of SPV of industrial products firms in Malaysia, particularly during the post-crisis period.

Taskeen and Nudrat (2017). Studied the Impact of dividend policy on share price volatility. The study used secondary data from top 10 companies listed in Pakistan Stock Exchange (PSX). The study covered a time span from 2007 to 2016. The association connecting variables were investigated by employing regressions analysis under the method of least squares model. Share price volatility served as dependent variable while Dividend yield, dividend payout, firm's size, firm's growth, earning volatility and leverage are the independent variables of the study. The result showed that all independent variables have significant impact on share price volatility, which showed that firms which pay regular dividend to its shareholders are more stable in their stock price.

An analysis by Tharshiga and Velnamby (2017), on dividend Policy and Market Value of Listed Manufacturing Companies in Sri Lanka. The study used secondary data drawn from annual reports which were published in Colombo stock exchange web site for the period of 8 years. Nineteen listed Manufacturing companies were selected using random sampling method. Regression and granger causality test were applied to test the relationship. In the study Share price is the dependent variable and Dividend pay-out and Dividend per share are the explanatory variables while Debt to equity, Asset Growth, earning volatility and Size are the control variable. The result revealed that dividend policy of the companies does not influence on market value and at the same time market value also does not granger cause dividend policy. Therefore, the study consists with Irrelevance theory.

Muhammad, Ashraf and Hussein (2018), examine the Effect of Dividend Policy on Stock Price Volatility: Empirical Evidence from Amman Stock Exchange. The data applied for the study consisted of 228 firms listed on the Amman Stock Exchange from the period 2010 to 2016 which makes up 1596 firm-year observations. Descriptive statistics, Pearson correlation and panel GMM estimation were applied to test the relationship. In the study, Stock price volatility served as dependent variables and Dividend Yield and dividend pay-out ratio served as the independent variables while Earnings volatility, firm size, financial leverage and growth served as the control variables. The findings showed that both main variables of dividend policy-dividend yield and dividend payout have negative significant relationship with stock price volatility. This implies that the higher the dividend yield and dividend payout of the firms, the lower the stock price volatility which lead to more stability of the stock price.

An empirical investigation by Oyedele and Adeleke (2018), on dividend Policy and Share Price of Zenith Bank Plc in Nigeria. The study used secondary source of data from the audited annual financial reports and accounts of Zenith bank Plc from 2007-2016. The market value of the share, earnings and the dividend paid in 2007 to 2016 were considered. Descriptive statistics were used to describe the variables while Correlation Analysis and Ordinary Linear Square (OLS) were used to examine the relationship and effect between the variables respectively. The dependent variable is Market Price while the independent variables are Dividend yield, earning yield and payout ratio. The results showed that dividend yield, earnings yield and payout ratio have negative impact but not significant on share price of Zenith bank. This implies that dividend policy measured by dividend yield, earnings yield and payout ratios are a weak predictor of the share price of Zenith bank.

Prasad and Anuradha (2018), investigated the Relationship between Dividend Policy and Volatility of the share prices: Evidence from Indian Pharmaceutical and IT companies. The study used secondary source of data. The data has been collected from the financial years of 2011-2017. Multiple regression and correlation test have been used for data analysis. The dependent variables are Dividend Yield and Dividend Payout while the independent variables are Earnings Volatility, Long Debts, Growth in Assets and Firm Size. The findings showed that the Earnings Volatility, Growth in Assets, Long-Term Debts are positively correlated with price volatility while Dividend Payout, Dividend Yield and Firm Size are negatively correlated with the price volatility.

### Methodology

The research design used in this study is ex-post facto method, as the study entails the use of annual reports and accounts of listed companies in the Nigerian Stock Exchange (NSE). Therefore, the non-survey design is adopted to actualize the research objectives. The population of this study is made up of all the listed industrial goods companies in the Nigerian Stock Exchange as at the year 2018. However, Filter sampling technique was used through applying criteria, for a company to be part of the sample; the company should be qualified in terms of the following: They should have been listed on Nigerian Stock Exchange from 2012, There should be no change in the fiscal year during the period, the required data should be available and The required data should be accessible. Seven Industrial Goods Companies has been selected as sample size of the study using Filter sampling techniques criteria. The secondary data were sourced from the company's financial report for the period of five years from 2013 to 2017 contained in company's annual reports and account and all were used to compute the dependent variable (share price) while dividend payout ratio and dividend yield as proxies of independent variable respectively. For the purpose of presentation and discussion of the result of data generated in the course of these research three (3) techniques of data analysis will be used in Stata version 13<sup>nd</sup> statistical tools of analysis. These are: descriptive statistics, correlation and regressions analysis.

Hence, the model is expressed as

$$SP = f(DPR, DY)$$
$$SP = \beta_0 + \beta_1DPR + \beta_2DY + \beta_3ADPS$$

Where: SP = Share price, DPR = Dividend payout ratio, DY = Dividend yield,  $\beta_0$  = Is the constant (i.e. the intercept) e = Error term.

### Result and Discussion

This section presents the analyses and interpretations of the data generated relating to each of the statistical hypotheses of the study.

#### Descriptive Statistics

The descriptive statistics shows the mean and standard deviation of each independent variable from the mean and standard deviation of the dependent variable.

**Table 1:** Descriptive Statistics of the Variables

	N	Minimum	Maximum	Mean	Std. Dev
MPS	35	0.0000	156.0000	26.1403	39.9424
DPR	35	-7.4666	3.1058	0.2279	1.5399
DY	35	-0.0001	0.0548	0.0073	0.0131

**Source:** Computed using Stata

Table 1 shows the descriptive statistics result of the dependent and independent variables. A total of 35 observations were recorded. The table shows the mean and standard deviation with minimum and maximum range of the dependent and independent variables. On average the market price per share (MPS) has a mean of 26.140 at a minimum point of 0.0 and a maximum point of 156.0 with standard deviation of 39.942 representing above 100% showing that there is much variation among the MPS of the sampled companies. The dividend payout ratio (DPR) has a mean of 0.227 at a minimum point of -7.466 and a maximum point of 3.1058 with standard deviation of 1.539 representing above 100% showing that there is much variation among the DPR of the sampled companies. The dividend yield (DY) has a mean of 0.007 at a minimum point of -0.0001 and a maximum point of 0.0548 with standard deviation of 0.013 representing 1.31% showing that there is no much variation among the DY of the sampled companies.

### Correlation Result

The correlation result shows the relationship between each independent variable and the dependent variable. The values of the correlation coefficient range from -1 to 1. The sign of the correlation coefficient indicates the direction of the relationship (positive or negative) the absolute value of the correlation coefficient indicates the strength, with larger values indicating stronger relationships and lower values indicating weak relationships. The correlation coefficients on the main diagonal are 1.0, because each variable has a perfect positive linear relationship with itself.

**Table 2:** Correlation result

	MPS	DPR	DY
MPS	1.0000		
DPR	0.2144	1.0000	
DY	0.2775	0.4191	1.0000

**Source:** Computed using Stata

Table 2 shows the correlation result of the dependent variable MPS and the independent variables DPR and DY. The relationship between MPS and independent variable DPR is positive but weak, this means that, all things being equal the higher the DPR the higher the MPS. The relationship between MPS and independent variable DY is positive but weak, this means that, all things being equal the higher the DY the higher the MPS.

### Regression Result

The regression result shows the impact of each independent variable to the dependent variable. The regression coefficient values indicate the extent of the impact which range from 0% to 100%. This section also presents the F statistics,  $R^2$  and adjusted  $R^2$  of the model.



**Table 3: Regression Results**

Dependent Variable: MPS					
Variable	Coefficient	Std. error	t-statistic	prob.t	95% conf.
Constant	2.387	7.651	2.660	0.012	4.802
DPR	0.087	4.820	0.640	0.026	-6.732
DY	0.497	566.353	1.220	0.030	-460.126
R-squared	0.487				
Adj. R-squared	0.217				
F-statistic	1.560				
Prob. (F-statistic)	0.026				

**Source:** Computed using Stata

$$MPS_{it} = \beta_0 + \beta_1 DPR_{it} + \beta_2 DY_{it} + e$$

$$MPS = 2.388 + 0.087 + 0.497DY$$

Table 3 shows regression results of the model. The model consists of dependent variables MPS and independent variables (DPR and DY). The impact of independent variable DPR on dependent variable MPS is positive with coefficient value of 0.087, meaning that an increase in DPR by one unit while other variable remains constant lead to an increase in MPS by 8.7%. The impact of independent variable DY on dependent variable MPS is positive with coefficient value of 0.497, meaning that an increase in DY by one unit while other variable remains constant lead to an increase in MPS by 49.7%. The f-statistic from the table is 1.56 which mean that a model with a larger f statistic indicates that the model account for the variation in the dependent variable buy is statistically significant with the p-value is 0.026 which is greater than 0.005. In the model the multiple coefficient of determination  $R^2$  is 0.487. This means that 48.7% of change in MPS was caused by changes in independent variables DPR and DY while the 51.3% change in MPS was caused by other factors not included in the model.

### Test of Hypotheses

In order to decide whether to reject or accept the null hypothesis at 0.05 (5%) level of significant, the rejection point is use which states that. (1) If the p value is equal to or less than 5%, the null hypotheses is rejected and the alternate hypotheses is accepted; (2) If the p value is more than 5%, the null hypotheses is accepted and the alternate hypotheses is rejected.

The t-cal of DPR is 0.526 with p value of 0.026 which is more than 0.05. Therefore; the null hypothesis which states that there is no positive significant relationship between Dividend Payout Ratio (DPR) and Share Price (SP) of listed industrial goods companies in Nigeria is rejected.

The t-cal of DY is 1.220 with p value of 0.030 which is more than 0.05. Therefore; the null hypothesis which states that there is no positive significant relationship between Dividend Yield (DY) and Share Price (SP) of listed industrial goods companies in Nigeria is rejected.

### Conclusions

At the introductory section of the study, was reported that the dividend ratio provides analytical information about the financial strength of the company or enterprises along with



reflections about its investor's expectations, the dividend can be distributed either in cash or by capitalization of profit as bonus shares. The section explains problem of the study, research objective which was letter restated in null hypothesis, scope of the study among other. Similarly, there is an extensive but logical review of relevant and related literature of the study with respect to the concept dividend, Dividend policy, relevant of dividend policy and empirical studies. Section three was develop to research methodological issues, were ex-post factor was used as research design, and secondary was used only. Section four was devoted to data presentation, analysis and discussion. The study concludes that Dividend Payout Ratio (DPR) of industrial goods companies in Nigeria can significantly influence their market value, which has ultimate effect on the investment decision of the existing shareholder precisely and Dividend Yield (DY) of industrial goods companies in Nigeria can significantly influence their market value. This influence has negative and positive effect on the potential investor towards investing in the company.

### **Recommendation**

The research recommended that: The existing investors in the Nigerian industrial goods sector should from time to time; ensure extensive and critical evaluation of Dividend Payout Ratio (DPR) as it can significantly influence their market value which has ultimate effect on the investments, Potential investors and general public in Nigeria should take note of industrial goods companies Dividend Yield (DY) as it can significantly influence their market value. This influence could be positive and negative effect on the investment decisions on these companies.

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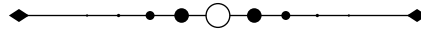
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## Poverty Reduction, Unemployment and Rural Development: Aftermath of COVID-19 Pandemic in Nigeria

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### Abstract

Nigeria has one of the countries whose experience of poverty and unemployment is on the high side makes this study to look into the effect of the economic lockdown during the global pandemic in the country, with the aim of making effort on how this effect can be translated into economic development. Survey research design method was adopted with self-administered questionnaire used to collect data. Findings revealed that in Nigeria COVID -19 outbreak effects was felt in almost all sectors and the aftermath greatly affected the country's GDP and this adversely affect rural development in the country, which translated to a worrisome rate of poverty and unemployment. Hence, both individual and government have now seen that campaigning for economic diversification is not sufficient for economic development but rather a prompt swing into action by all is needed for sustainable development of rural areas to respond to the worrisome rate of unemployment and in turn high level of poverty caused by the COVID-19 lockdown in the country. It was recommended that government at all level as well as individuals and stakeholders should put in place actions that would gear up rural development and set policies at their various helms of affairs that would encourage economic participation of all citizens in all sector of the economy.

**Keywords:** *Poverty, Unemployment, Rural development, COVID-19*

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### **Background to the Study**

In December 2019, the World Health Organisation (WHO) declared COVID-19 as a global pandemic, having registered the effects this contagious virus has caused across the globe. The virus which emanated from Asian countries led to the total lockdown of all (social and economic) activities in all countries affected to curb its spread. Before WHO pronounced it has a global epidemic, Nigerians saw the disease as a foreign land infection that could never spread to the country and this affected the response to its confirmation in the country. Despite the rate of spread of COVID -19 in the country, many believed it was a disease for the high class citizens. High rate of poverty and unemployment with (stagnation in) development of rural areas are inherent characteristics of developing nations which has always been considered by researchers over the years, all with the aim to tackle development challenges. Weak progress on structural changes and low spending on research and development accounts for the deterred economic growth in developing countries. The rural poor in middle- and low-income countries will be particularly at risk (with the COVID-19 aftermath) due to the depth of their poverty, high population numbers, reduced remittances and the limited capacity of the state to respond (Ocampo, 2020). Even the G20 Leaders, the International Monetary Fund, the World Bank Group and the UN Secretary General, are all of the opinion that poor people and poorer countries are particularly at risk as a result of the pandemic.

The consequences of COVID-19 disease outbreak on the economy of Nigeria have gradually started unfolding. According to Woodhill (2020), the health and economic impact are likely to be felt more by the world's poorest people. This pandemic experienced all over the world in the year 2020 affected the job of many citizens (there was job creation and job loss), this resulted in reduction or loss of incomes to individuals, firms and government, thereby having a widespread impact on people's financial resources to the extent that acquiring even basic needs such as purchase of food became difficult for the poor citizens. One of the ways the economic effect was reflected is through the inability of government to fulfill her rural development plan in the year 2020, this would likely be the situation in the next few years due to economic aftermath of COVID-19 caused by the direct and indirect impacts (like shortfalls in government revenue) of the lockdown policy. To assess the economic impact of the lockdown, consideration has to be given to gross national product (GDP) as well as the number of people living below the international poverty line.

In Nigeria, the government has given development of rural communities' utmost priority over the years because most economic diversification options such as agriculture can be enroot through rural development. In most developing nation about 70% of the population lives in the rural areas and almost all of them still live in extreme poverty, buttressing the fact that the negative effect of COVID-19 would be felt more by low class citizens. According to Ocampo (2020), the economic effect of the pandemic is most likely to initially increase poverty level in the country thereby hindering poverty reduction strategy. Ocampo (2020), also stated that, actions need to be taken in areas such as trade, finance and tax corporations to put the global economy on a more suitable path. Another severe socio economic impact of COVID-19 which has greatly affected the Nigerian economy is the sharp drop in oil prices, which threatened to undo years of moderate economic growth in Nigeria and many other oil-dependent African countries (IMF, 2020a).



The socio-economic effect of COVID-19 in Nigeria and the world at large requires attention being given to strategy, business, people, risk and operations generally. This is because the disease outbreak has a significant influence on; business operations, health care systems, recession, lives and properties. Before the pandemic, the increase in the rate of unemployment and even underemployment in Nigeria contribute a lot to why poverty level is on the high side in the country and now the effect of this disease outbreak experienced all over the world has affected the job structure or nature of many citizens. While to some the experience has been job loss and to some others especially those endowed with Information Technology (IT) knowledge, it has being an opportunity for job creation as IT was the most reasonable means of communicating during the lockdown. But quite a number of Nigerian citizens lost their jobs due to the lock down, this resulted in reduction or loss of income thereby having a widespread impact on people's financial resources to acquire even basic needs such as purchase food. Though the lock down effect on jobs was felt by both the employers and employees it however opened the mind of many to the reason to look into diversifying their means of earning and likewise other creativity in them where geared-up by the lockdown.

The COVID-19 lockdown had a great impact on Nigeria economy and this has caused the rate of unemployment, poverty and rural development to worsen with a prediction of the situation getting worse in the future. It is not an under-statement to say that the experience brought by the pandemic in the year 2020 has shown the need for all nations to plan appropriately for the future. Hence, critical future insights are more important than ever especially in a developing country like Nigeria. This study therefore intends to look into the effects of the economic lockdown during the global pandemic on the Nigerian society, with the aim of making effort on how these effects can be translated into economic development while other objectives of this study are to know the impact of rural development on poverty reduction, investigating the effects of rural development in curbing unemployment and examining the relationship between unemployment and poverty reduction.

### **Review of Related Literature**

The arrival of the pandemic set off a chain of policy actions, including public health and education campaigns, fiscal and monetary measures, restrictions on large sections of the economy, and compensating measures in the form of social protection for poor and vulnerable people (Onyekwena and Amara Mma, 2020). The Economist Intelligence Unit warns that COVID-19 outbreak will be the most brutal recession in living memory that “could devastate poor countries”.

### **Impact of Rural Development on Poverty Reduction**

The various control measures imposed by government during the lockdown in addition to restrictions in movement, led to the incidence of increase in the prices of goods and services, lack of food, restriction from accessing basic need such as shelters. Increases in the prices of goods and services are due to scarcity of resources, low supply and high demand, which led to inflation. Various researches have suggested that Nigeria economy requires economic diversification and development of rural areas is a good means through which this can be achieved.

Given the adverse outcomes of the pandemic, a pressing economic policy concern is to find ways to reduce the negative consequences of lower household income, higher poverty, and the greater likelihood of associated long-term impacts, such as deeper rates of malnutrition. In the short-term, while the focus has been on health, security, and the welfare of vulnerable population groups, the government has provided food from the national grain reserve and advanced payments of conditional cash transfers [ (FAO, 2020; FGN, 2020a) as cited by ACAPS (2020); Nnabuife, 2020].

As stated by (UNHCR, 2020), the impact of the lockdown reduced family interactions (57.61%) whereby keeping the core family members only with no possibility of visiting relatives. The stressful situations caused by the restriction could stimulate mental and emotional disorder, particularly among households with poor income. The COVID-19 economic challenge requires a good foresight thinking to prepare for how shorter-term impacts of the lockdown will unfold, also to look at what await the economy in the future as well as how to ensure the best is made out of the situation such as vast investments that will be made to help recovery can contribute to a more equitable and sustainable society. Inequity and unsustainable resources use and climate change impact disproportionately on poor rural people and small-scale farmers. COVID-19 needs to be a wake-up call for creating systems that are far more resilient to shocks such as the current pandemic (UNHCR, 2020).

Slow down in rural development is also expected due to the fact that the cash flow and profits of firms have dropped substantially putting many, particular small and medium sized enterprises, at risk of financial default. This has a spiraling negative impact on the economy with flow-on effects to the financial sector and the availability of credit (Woodhill, 2020). Economic fallout from the crash in oil prices and the economic effects of COVID-19 would worsen poverty and economic inequalities in the country. Prior to the pandemic the Nigerian economy was characterized by slow growth, high inflation rates and currency fluctuation, and high levels of poverty (Daily Trust 20/05/2020 as cited by ACAPS, 2020).

About 15% of the world's poorest reside in Nigeria; urban crime, kidnappings, and herder-pastoralist clashes are widespread in some areas due to poverty, limited resources, and lack of economic opportunities. There is a risk that the economic impact of COVID-19 will exacerbate insecurity (The New Humanitarian 15/05/2020; Chatham House 12/05/2020 as cited by ACAPS, 2020). A study on remittances conducted in Nigeria between 2011 and 2012 found that over 74% of the total remittances flows to the country were spent by households on consumption, education and health (Progress in Development Studies 12/2014; IFAD 2011 as cited by ACAPS,2020). Decline of remittances to Nigeria will probably lead to increased poverty and reduced access to essential goods and services (The World Bank 04/2020 as cited by ACAPS, 2020). Nigeria is the biggest oil exporter in Africa and the largest gas reserves in the continent, with the huge reserves of both human and natural resources, Nigeria is expected to build a rich and comfortable economy, reduce its poverty level significantly and be able to provide infrastructural services to cater for its population need (World Bank, 2014).

The dependent of the country on the oil sector have not helped to bring up development as expected especially to rural areas. It is therefore important that putting in place some factors which would aid the development of the rural areas in Nigeria should be given priority. Therefore, it is important to note that the impact of COVID-19 on the rural poor needs to be given attention especially with the economic, livelihoods, health and food security implications in the short, medium and longer term.

### **Effect of Rural Development in Curbing Unemployment**

ACAPS (2020) stated that, oil revenues contribute 60% of the government's revenue and 90% of its foreign revenue. The recent global crash in oil prices, fuelled by an OPEC+ price war and subsequent drop in demand of oil derivatives amid COVID-19 containment measures worldwide, resulted in Nigeria reducing its oil production and exports. Depletion of foreign reserves in the Nigerian Central Bank (normally countries get foreign currency from exports to replenish their reserves) has made it difficult to stabilize the local currency (Naira) against the US dollar, causing a rapid depreciation of the Naira (ODI 07/04/2020 as cited by ACAPS, 2020).

The UN Refugee Agency- UNHCR (2020) as part of the prevention and mitigation measures in response to the pandemic explained that there were wide ranging restrictions to movement and closure of socio-economic institutions and infrastructure across the country, leading to reduction of access to services during the COVID-19 pandemic. The report indicated that access to education was the most impacted (at 62%) resulting from the country wide closure of schools and educational institutions. It is more like a shame that it was difficult during the lockdown for online schooling to be conducted in a country that is referred to as the giant of Africa. This explains that effective management of resources to coordinate various sectors like education is important. If resources has been effectively utilized before the pandemic lockdown the education sector would have not suffered that much. The situation to people in the rural areas would be worse because most members of these communities are actually being encouraged enroll in school through sensitization that it is an expenses that worth it in a future date even though their income seems to be low to cater for educational expenses as believed by them.

Analysis have projected that due to the sharp reduction in national GDP as a result of the lockdown, Nigeria is likely to experience recession. During an 8-weeks period in the lockdown the country's GDP reduced by about 23% and just as the global projection, a reduction of about 6% to 9% compared to the expected level of GDP before the COVID-19 outbreak was estimated for the second half of the year 2020 in Nigeria (see IMF, 2020b; World Bank, 2020a). The Nigeria poverty rate was also estimated to increase by 9% with the majority remaining poor till the end of 2020. The 2016 recession was the first in 25 years, and while painful, it amounted to a relatively manageable contraction of about 1.6% of GDP (World Bank, 2019). During the lockdown the agricultural sector was exempted from the lockdown policy, yet there was a prediction of a reduction in the agric-food production which was estimated to be about 11% as at the end of 2020.

The rural areas are where certain occupations like farming, fishing, mining, which serves as major options for economic diversification in Nigeria in order to reduce the country's dependence on oil can take place. The unemployment rate in the country could be address through rural development by provision of amenities that would encourage citizens to engage in different sectors (like mining, fishing, farming) that present job opportunities.

### **Relating Unemployment and Poverty Rate**

Aside unemployment (brought about by the lockdown) that has contributed to the increased poverty rate, the value of the Nigeria currency also had it own impact. The high rate of poverty in Nigeria has been connected in the past to mismanagement of the economy as well as frequent changes in economic and social policies due to frequent change in government. When citizens are gainfully employed, it reduce the poverty level experienced in an economy, but the pandemic has made a lot of citizen especially the low level workers to loss their job. This coupled with the devaluation of Nigeria currency due to lockdown, has reduced the purchasing power of the citizen, making the low income earners to be at more disadvantage. Woodhill (2020) stated that at the very least the current crisis will lead to increased poverty levels in the short term and hamper longer-term poverty reduction ambitions. Akwara, Akwara, Enwuchola, Adekunle, and Udaw, (2013), said unemployment was critical in the 1980s and has ever since been on the rise in Nigeria. The figure of 20% unemployed from the nation's work force in 2011 was up from 15% in 2008 (Lamido, 2013). People facing this challenge are the youth of Nigeria who up till date constituted the highest unemployment rate. Between the ages of 18 and 45 years old constitute about 40% to 60% unemployed in Nigeria (Akwara, et al, 2013).

The informal workers are particularly vulnerable to the negative economic effects of movement restrictions and social distancing measures. The depreciation of the Naira did not seems to have an immediate impact on inflation (Petroleum Economist 24/03/2020 as stated by ACAPS (2020)). Movement restrictions together with lockdown measures have decreased trade (import, export, and inter-state trade) and caused business closures, leading to higher prices for goods and services, unemployment, and loss of incomes Higher transaction costs for trade of essential goods caused by movement restrictions and continued currency devaluation, following the global decline of oil prices, will likely result in a continued increase in prices and decreased households' purchasing power (FEWS NET 04/2020 cited by ACAPS, 2020).

The informal sector accounts for 80% of employment in Nigeria (ILO 2018 cited by ACAPS, 2020). There is often no record of informal workers; consequently, they are less likely to be protected by labour laws or included in social protection programmes. Informal workers often rely on daily work and payments are received in cash. 72.3% of all people employed in the informal sector in Nigeria are poor ILO (2018). Poor households are unlikely to have savings, assets, or mechanisms that would enable them to cope with the sudden loss of income and economic shock caused by COVID-19 containment measures ACAPS (2020). The informal sectors that could help to tackle economic diversification (to create employment in order to solve the problem of poverty) could be found in the rural areas, hence the need for the development of rural areas.

### Methodology

To collect data for this study, descriptive survey research design was adopted and a questionnaire was distributed to a sample size of 250 selected randomly from 50 local communities in the Southwest States in Nigeria. Statistical analyses were performed using SPSS (SPSS version 21 for Windows). Descriptive statistics (frequency, percentage, mean and standard deviation) was used to test the hypothesis and inferential stat was tested by t-test. The results of the analysis are presented below:

**Table 1:** Social-demographic characteristics of respondents

Items	Characteristics	Frequency	Percentage(%)
Gender	Male	121	48.4
	Female	129	51.6
	<b>Total</b>	<b>250</b>	<b>100</b>
Age	Below 30years	77	30.8
	31-40years	95	38
	41-50years	65	26
	51years and above	13	5.2
	<b>Total</b>	<b>250</b>	<b>100</b>
Marrital Status	Married	168	67.2
	Single	79	31.6
	Others	3	1.2
	<b>Total</b>	<b>250</b>	<b>100</b>
Monthly income	Less than #100,000	155	62
	#100,000-#150,000	69	27.6
	#150,000-#200,000	21	8.4
	#200,000 and above	5	2
	<b>Total</b>	<b>250</b>	<b>100</b>
Religion	Islam	191	76.4
	Christianity	52	20.8
	Traditional	5	2
	Others	2	0.8
	<b>Total</b>	<b>250</b>	<b>100</b>

Table 1 shows descriptive analysis of respondents by demographic information. Out of 250 respondents sampled in the study area, 121 (48.4%) were male while 129 (61.6%) were female with majority of the respondents within the active population age bracket of 31 to 40 and 41 to 50. The income status of the respondents had majority earning less than #100,000 per month.



**Table 2:** To measure rural development

Variables	Yes		No		Mean	Std. Dev.	Decision
	F	%	f	%			
Before the lockdown, is there electricity, water and good road in your town/ village?	55	96.5	195	3.5	2.33	0.71	Disagree
Is there electricity supply in your town?	30	73.3	220	26.7	2.08	0.76	Disagree
Is there enough schools to cater for at least basic education in your town/village?	100	84.2	150	15.8	2.91	0.68	Disagree
Is there increase in the rate of school enrollment in your town?	105	40.8	145	59.2	2.43	0.71	Disagree
Is there hope that with the effect of COVID-19 government would provide these facilities to your town after the lockdown?	50	41.7	200	58.3	1.7	0.95	Disagree
<b>Grand Mean</b>					<b>2.2</b>	<b>0.76</b>	Disagree

**Source:** Field Survey (2021)

Table 2 shows that the study area has a deterred development and there is no prospect for the provision of facilities that would facilitate it by government due to the COVID-19 effect.

**Table 3:** To Measure the relationship between rural development and poverty level

Variables	Yes		No		Mean	Std. Dev.	Decision
	f	%	f	%			
Do you have a good waste drainage and toilet facility in your home before the lockdown	55	22.0	195	78.0	2.33	0.31	Disagree
The absent of drainage and toilet facility in your home is not connected to the level of your income	30	12.0	220	26.7	2.08	0.26	Disagree
Can you comfortably provide for your basic needs e.g food, cloth, shelter during and after the lockdown	100	40.0	150	60.0	2.5	0.18	Disagree
Government provision of facilities improved of poverty rate before the lockdown in your area	105	40.8	145	59.2	3.14	0.51	Disagree
<b>Grand Mean</b>					<b>2.51</b>	<b>0.32</b>	Disagree

**Source:** Field Survey (2021)

The response from the respondents gives a grand mean of 2.51 and 0.32 standard deviation, proving that rural development does not correspond with poverty level.



**Table 4:** To measure the relationship between rural development and unemployment level

Variables	Yes		No		Mean	Std. Dev.	Decision
	F	%	f	%			
Is farming embraced by the people of your community during and after the lockdown	241	96	9	3.6	3.33	0.71	Agree
Is fishing, mining and other available jobs embraced by the people in your area during and after the lockdown	11	4.4	239	96	2.08	0.76	Disagree
Do entrepreneurs in your area have access to bank loan	7	2.8	243	97	2.19	0.68	Disagree
<b>Grand Mean</b>					<b>2.53</b>	<b>0.72</b>	Disagree

**Source:** Field Survey (2021)

Table 4 shows that farming was more embraced by the people during and after the lock down, indicating that the campaign for income diversification from oil sectors got a good response in the agricultural sector. Fishing, mining and other available jobs in the study area were not embraced by many during after the lock down while access to bank loan that could encourage involving in other productive activities is not available. is table has proven that the campaign for income diversification from oil sectors got a good response in the agricultural sector.

### Hypothesis One

$H_{01}$ : There is no significant influence of rural development on the poverty level of the respondents during and after lock down.

$H_{11}$ : There is a significant influence of rural development on the poverty level of the respondents during and after lock down.

**Table 5:** Relationship between Rural Development and Poverty Level

Variables	N	Mean	Std. Deviation	t-cal	sig. (2-tailed)
RD	250	2.203	0.760	3.045	0.072
PL	250	2.510	0.320		

\*\* Significant at  $p < 0.05$ , (RD=Rural Development and PL = Poverty Level)

**Source:** Fieldwork (2020)

Table 5 reports the means, standard deviations, and t-statistics for the study variables. Results revealed that there is no relationship between rural development and poverty level. Null hypothesis was not rejected since the is p-value greater than 0.05( i.e sig. = 0.072) and conclude that there is no significant influence of rural development and poverty level of the respondents during and after lock down.

## Hypothesis Two

H<sub>02</sub>: There is no significant influence of rural development on the unemployment level of the respondents during and after lock down.

H<sub>12</sub>: There is a significant influence of rural development on the unemployment level of the respondents during and after lock down.

**Table 6:** Relationship between rural development and unemployment level

Variables	N	Mean	Std. Deviation	t-cal	sig. (2-tailed)
RD	250	2.20	0.76	3.31	0.065
UL	250	2.53	0.72		

\*\* Significant at  $p < 0.05$ , (RD=Rural Development and UL = Unemployment Level)

**Source:** Fieldwork (2020)

Table 6 reports the means, standard deviations, and t-statistics for the study variables. It revealed that there is no relationship between rural development and unemployment level. Hence, the null hypothesis was not rejected since the p-value greater than 0.05 (i.e sig. = 0.065) and it was conclude that there is no significant influence of rural development and unemployment level of the respondents during and after lock down.

## Findings

It is obvious from the analysis above that the lockdown of activities due to the pandemic would have a serious effect on the Nigeria economy. This study reveals that before the lockdown, many Nigerians live below the world acceptable poverty line and this is as a result of the high level of unemployment in the country. The COVID-19 restrictive measures, severely affect activities that promote economic and social development and coexistence in the country which actually resulted in a drastic increase in unemployment level especially among the low class citizens (mostly residing in rural areas) in the country. The aftermath of the lockdown was felt in sectors like education, agriculture, oil, sport, tourism, commerce and industry and has also greatly affected the country's GDP causing a reduction in the government revenue due to lower demand for oil. This has actually contributed to an increase in unemployment and therefore increasing poverty rate in the country. It was also discovered that despite the campaign of income diversification over many decades, a larger percentage of government's revenue still comes from oil proceeds. Though, response from the study area proves that the campaign for income diversification from oil sectors got a good response in the agricultural sector, but this is not the only option available for diversification and that participation in other sectors must have being low due to lack of encouragement.

The reduction in the oil income has greatly affected government ability to fulfill her responsibilities such as development of rural areas. It was however revealed that both individual and government have now seen that campaigning for economic diversification is not sufficient for economic development but rather a prompt swing into action by all is needed to put in place factors that would help to achieve sustainable development of rural area so as to be able to curb the worrisome rate of poverty and unemployment in the country.

### **Conclusion**

It was concluded that the dependent of the Nigeria economy on the oil sector have not helped to spring up development as expected to the rural areas and even to the country as a whole. This study also shows that the lockdown has opened the mind of individual, firms and government to various opportunities they could explore to generate more income. We could also infer from this study that Nigeria has a large rural sector that calls for modernization and that the economic diversification the country requires could be achieved through the development of rural areas. It is therefore important to put in place factor that would encourage participation in other sectors as this would aid the development of the rural areas in Nigeria. This would increase employment opportunities and when citizens are gainfully employed, it reduce the poverty rate experienced in an economy, as the pandemic has made a lot of citizen especially the low level workers to loss their job. This coupled with the devaluation of Nigeria currency has reduced the purchasing power of the citizen, making the low income earners to be at more disadvantage.

It is therefore concluded that the development of rural areas has resulted in reduction in unemployment, individuals would have access to reliable and secured income and as the income of individuals/citizens increases, (through citizens patronage) source of income to organizations and government would increase making each stakeholders have higher purchasing power to cater for their needs and meet up with tier responsibility which would in the long run translate to economic development.

### **Recommendation**

In order to be able to strategies responses to tackle unemployment and poverty as an aftermath of this disease outbreak and translate such to economic development, an effort to reduce over dependence on oil income in Nigeria should be made. It is recommended that government at all level as well as individuals and stakeholders should put in place actions that would encourage rural development as a means to diversifying income of individual, firms and government. Policies that would guarantee job security, encourage rural development and ease participation of any citizens in all sectors of the economy should also be established as a means through which economic diversification could be attained. Also, strict and effective policies to tackle several factors (like mismanagement of the economy, frequent changes in economic and social policies due to frequent change in government) responsible for high rate of unemployment and poverty should be put in place.

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## Effect of Micro Lending Rate on SMEs Growth in Nigeria

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### Abstract

Small and medium enterprises are acknowledged as the lubricants that wheel the socio-economic development of a nation yet their growth has been stunted by harsh fiscal and monetary policies. This study seeks to investigate the effect of micro financing interest rate on small and medium scale enterprises growth in Lagos and Ogun State, Nigeria. Primary data was employed using structured self-administered questionnaire with five-point Likert scale. The study adopted a descriptive survey research design to give an accurate description of the research variables. Yaro Yamane's sampling technique was used to select four hundred (400) SMEs from the total population of thirteen thousand four hundred and fifty-seven (13,457) in both Lagos and Ogun States, while stratified and proportionate sampling methods are used to determine the sample size of three hundred and forty eight (348) SMEs in Lagos state and fifty-two (52) in Ogun state. Ordinary Least Square Regression (OLS) was used to estimate the regression. In the study, one hypothesis was formulated and tested. The results from the hypothesis tested revealed that a significant negative relationship exist between micro finance interest rate and SMEs growth in Nigeria at 5 per cent level ( $t_c = -1.570731$ ;  $p = 0.0009$ ). Based on the finding, the study concluded that significant negative relationship exists between micro finance interest rate and small & medium enterprises growth in Nigeria. The study recommends that microfinance banks should charge moderate interest rate to SMEs without stringent collateral requirements to boosts SMEs growth in Nigeria.

**Keywords:** *Micro financing, Access to finance, Challenges, SMEs growth, Nigeria*

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### **Background to the Study**

Small and medium enterprises (SMEs) play a vital role in promoting economic growth and creating employment, they have fuelled social development in a constantly changing economic environment. They also assist in regional development and export market expansion but their total contributions to the nation Gross Domestic Product (GDP), employment generation, technological advance is at low ebb (Bhuyan, 2016) due to bane of finance resulting from poor access to finance from the convectional banks in Nigeria (Osuji, 2017; Omondi, 2018). SMEs are regarded as antidotes for socio-economic development of developing, emerging and developed nations. They are remarked as the lubricants that wheel the economic development of nations and foster economic diversification (Alli and Udosen, 2019; Osotimehin, Jegede, Akinlabi, and Olajide, 2014). The sector has been recognized as an important pillar of economic growth all over the world and is characterized by operational flexibility. SMEs are the backbone of many economies in Sub-Saharan Africa (SSA) and hold the key to possible revival of economic growth and the elimination of poverty on a sustainable basis (Kibet, Kenneth, and Omwono, 2015). SMEs play a very important role in the development of a country because of its innovative entrepreneurial spirit. In many developing economies SMEs are regarded as the catalysts for economy viability of a nation but they are faced with significant challenges particularly in the area of finance that inhibit their growth and contributions to the economic development (Oluwaremi, Odelabu, Lawal and Obisesan, 2016). This was affirmed by Joseph, Kofin, Fanyel and Gaeten (2013) remarks that lack of access to credit and high lending rate by micro finance institutions stunted their growth.

Accessing finance has been identified as a key element for SMEs to succeed in their drive to build productive capacity, to compete, to create jobs and to contribute to poverty alleviation in developing countries (Akpan and Nneji, 2015). Corroborating the statement, Ajani (2014) cited in Samuel, Babatunde and Olajide-Arise (2014) posit that the latent capacity of the active poor for entrepreneurship would be significantly enhanced through the provision of micro finance services to enable them engage in economic activities and be more self-reliant, and in turn improve their abilities to create wealth. Empirical findings also revealed that SMEs in general lack the necessary financial services, especially credit from commercial banks because they are considered light weight and not credit worthy (Atsu, 2017), and this results to declining growth which is marked/marred by reactive plans and ill-health managerial practices. Most commercial banks and microfinance institutions do not offer credits facilities to SMEs due to their high mortality and failure rates, which makes it difficult for lenders to assess viability of their enterprises (SMEDAN, 2013). A major barrier to the rapid growth of SMEs is the dearth of both debt and equity financing (Akpan and Nneji, 2015). Subsequently, it was emphasized that the major indisputable challenge in all angles which is retrogressing SMEs growth is the lack of sufficient fund at a lower rate to set up and run small businesses (Danso-Abbeam, Ansah, and Ehiakpori, 2014; Omboi, and Priscilla, 2011). Most SMEs seeking bank loans face considerable credit constraints in that they receive credit much less frequently than larger ones at a higher rate (Garba, 2013). Nevertheless, a lot of commercial banks are not willing to finance small businesses because of the risks and uncertainties involved due to problem of movable assets, harsh economic environment, inadequate managerial skills and insufficient modern technology by small businesses which have led to a constant reduction in financing small businesses in the country (Taiwo, Onasanya, Agwu, and Benson, 2016).

SMEs are collectively the largest employers in many low-income countries, yet their viability can be threatened by a lack of access to such risk-management tools as savings, insurance and credit which cause series of negative consequences: economic and social opportunities are restricted; enterprise creation, growth and development are restrained (World Bank, 2013). Their growth is often stifled by restricted access to credit, equity and payments services. Instability in government policy has not been helpful to the sector, it resulted to greater destabilization and has indeed sent many SMEs to early fold-ups (CBN, 2012; Onyeneke, and Iruo, 2011; Oyedokun, 2015). Similarly, the exorbitant lending rates (ranging from 21% - 30% for commercial banks to as high as 48% - 60% per annum for microfinance banks) discourage SMEs from accessing bank loans and causes systematic failure (CBN, 2012). In spite of the intervention strategies of government and other development partners, through direct grants, lending or credit guarantee programmes, the growth, survival, and development of SMEs remains observably low because empirical evidence reveal that most SMEs had a high infant mortality rate between three to five years (Bhuyan, 2016). Accordingly, Yu (2012) acknowledges that 68% of all MSMEs in United States made their exit from business within 5 years, only 19% survived from 6-10 years, and merely 13% survived for more than 10 years. More so, in Europe, only 65% of SMEs survived for more than 3 years, and 50% survived for more than 5 years. SMEDAN (2012) remarks that lack of credit is one of the factors constraining the active poor that engaged in SMEs businesses, who possess potentials that if tapped, could lead to sustainable economic growth. Moreover, Addaney, Awuah and Afriyie (2016) authenticate that the rationale for denying the SMEs access to micro financing is due to financial regulations as contained in BOFIA Act (Banks and other Financial Act) which make it difficult for banks to sustain high costs and risks attached to SMEs lending. Yet, some of the challenges of the SMEs are induced by the operating environment (government policy, globalization effect, financial institutions, the removal of these attendant challenges is seemingly difficult and a daunting task demanding for total SMEs support (Osotimehin, Jegede, Akinlabi and Olajide, 2014).

Substantial numbers of extant literature and empirical research have been conducted both in the developed, emerging and developing nations on the effect of microfinance on SMEs: Akpan and Nneji (2015) reveal that the growth of SMEs depends largely on activities of small and medium enterprises operating in their vicinity; Babajide (2012), assert that micro financing as practiced in Nigeria by microfinance banks do not enhance growth and expansion capacity of SMEs. Further findings reveal that, the growth of SMEs is not just dependent on accessing microfinance loan but accessing the right size of loan at the right time. However, Oduyoye, Adebola, and Binuyo (2013) indicate that the services of micro finance banks and SMEDAN did not promote the growth of small business enterprises; While, Omondi (2018) conclude that microfinance services significantly influenced the financial performance of SMEs. However, Werigbelegha, Chukwunulu, and Ojukwu (2018) averred that the activities of microfinance institutions have not significantly contributed to the growth and development of Small and Medium scale Businesses (SMBs) in Nigeria. Obokoh, Monday, and Ojiako (2016) also submitted that microfinance lending gives a positive contribution to the development of SME's. Akpan and Nneji (2015) concluded that microfinance banks impact positively on the performance and growth of SMEs. Ndife (2013), also asserted that microcredit is a major factor that affects SMEs performance. It has been

observed from the deluge of literature that previous studies on micro financing and SMEs growth focused on the general contributions of micro finance banks and SMEs and their findings were inconclusive. This clearly shows that critical evaluation of the significant effects of microfinance interest rate and SMEs growth has not been done particularly in the South-South region of the country. This serves as a gap that this study seeks to fill by investigating the effect of micro financing interest rate on SMEs growth in Lagos and Ogun States in Nigeria.

### **Research Questions**

Does significant positive relationship occur between microfinance interest rate and SMEs growth in Lagos and Ogun States, Nigeria?

### **Statement of Hypothesis**

**H0:** There is no significant positive relationship between microfinance interest rate and SMEs growth in Lagos and Ogun States, Nigeria.

### **Review of related Literature**

Small and Medium Scale Enterprises (SMEs) has been in existence for over six decades during the colonial era (CBN, 2012) in Nigeria. Small and medium enterprises (SMEs) sector has emerged as a highly vibrant and dynamic sector of a nation economy (Bhuyan, 2016). The sector has registered a consistently higher growth rate than the overall manufacturing sector and plays a dual role since the output produced by SMEs is not only about final consumption but also a source of capital goods in the form of inputs to heavy industries (Ravi and Roy, 2014). SMEs regarded as the backbone of many economies in Sub-Saharan Africa (SSA) and hold the key to possible revival of economic growth and the elimination of poverty on a sustainable basis (Dennis, Achesa, and Gedion, 2015). SMEs are the engine of growth and catalyst for socio-economic transformation of any country, especially in a developing country like Nigeria. They are a veritable vehicle for the achievement of national macro-economic objectives in terms of employment generation at low investment cost, and enhancement of apprenticeship training (Vanguard, 2017). SMEs have contributed immensely to the growth of Nigerian economy and national objective of generating income and providing a source of livelihoods for the majority of low-income households in the country (Nkuda, 2016). These significant contributions of SMEs and the fact that they act as a catalyst for economic progress motivated the Nigerian government through CBN to establish the microfinance banks in 2005 to facilitate the promotion and growth of SMEs through loan scheme (Danso-Abbeam, Ansah, and Ehiakpor, 2014).

It is obvious that there is no universal definition of SMEs. Some countries define SMEs according to number of employees; others define them based on the level of assets or turnover or both. However, most definitions are based on a mix of the above parameters. This creates a definite problem for SMEs operators. Lack of proper definition makes it difficult for SMEs to benefit from government-assisted programmes meant for the sector. Ajose (2010) cited in Oyedokun (2015) defined small and medium scale enterprise as an enterprise that has an asset base (excluding land) of between N5 million and N500 million, and labour force of between ten (10) and three hundred (300) in its employment. The strategic roles of SMEs in Nigeria is evidence by provision of 70% of industrial employment and 60% agricultural employment



coupled with innovativeness (Abubakar and Yahya, 2013). There are an estimated 37,067,416 million micro, small and medium enterprises (MSMEs) in Nigeria, out of which over 36.9 million are Micro-Enterprises, 68,168 were Small Enterprises (SE), while 4.7 million were Medium Enterprises (SMEDAN, 2013). The agency affirms that SMEs represent 96% of the businesses in Nigeria and contribute 84.02% of national employment. In nominal terms, the sector contributes an estimated 46.54% to the nation's Gross Domestic Product, Thus, growth in the SMEs sector is directly linked with growth in the Nigerian economy and in the level of employment. Abosede, Hassan, and Oko-Oza (2017) remarks that SMEs is strategically positioned to absorb up to 80% of jobs in Nigeria, improve per capital income, increase value addition to raw materials supply, improve export earnings and step up capacity utilization in key industries. Hence, their development is crucial to the nation's socio-economic development (Osuji, 2017).

Motilewa (2015) regards SMEs as social agents simply because the sector has a good fit within all economies all over the world; they are known to be the greatest employer of labour cutting across various strata of employment. They cut across boundaries and serve as a form of subsistence to families where government's presence is not felt. Jegede, Kehinde, and Akinlabi (2014) affirms that small business owners fancy personal savings and credits from cooperative societies to microfinance and commercial banks fund stating reasons of non-accessibility, exorbitant collaterals and high interest rates. SMEs are significance to any economy due to their ability to stimulate indigenous entrepreneurship, mobilize and use domestic savings; provide intermediate raw materials or semi-processed products to large scale enterprises and curtail rural-urban migration. Small and Medium Enterprises (SMEs) constitute the driving force of industrial growth and development due to their great potential in ensuring diversification and expansion of industrial production as well as the attainment of the basic objectives of development (Akpan and Nneji, 2015). Thus, SMEs reduces the regional imbalances and assure more equitable distribution of national income and wealth. SMEs are complementary to large industries as ancillary units and it contributes immensely to the socio-economic development of developing countries (Sayed and Trivedi, n.d.). The vision of micro financing is to create systemic change in financial systems worldwide, instead of the exclusive financial systems that have for decades benefitted and protected the wealthy, microfinance intends to serve the improvised majorities, help lift them out of poverty, finance SMEs thereby make them full participants in their country's social and economic development (Suberu, 2011). Micro financing emerged as a noble substitute for informal credit and an effective and powerful instrument for poverty reduction among people who are economically active, but financially constrained and vulnerable in various countries (CBN, 2012).

### **Micro Finance and SMEs Growth**

Micro financing is a movement that envisions a world in which low-income households has permanent access to a range of high quality financial services to finance their income-producing activities, build assets, stabilize consumption and protect against minor investment risks (Lawanson, 2016). These services are not limited to credit, but include savings, insurance, and money transfers. Mazliana and Patmawati (2016) also found that micro financing is a catalyst for micro enterprising development and enhance access to finance without any collateral. Abdul, Shadiullah, and Sana-ur-Rehman (2015) also indicated that

microfinance is helpful in enhancement of average sale revenue and net income. Moreover, Andrene (2012) describes that micro financing is typically a form of relationship lending in which underwriting primarily depends on soft (non-quantifiable) information about the borrower. Micro financing is suitable for micro enterprises that are informationally opaque and lack significant amounts of assets that can be pledged as collateral (Onyeneke and Iruo, 2015). Rolando (2016) posits that micro financing is an excellent way of assisting entrepreneurs. It provides the underprivileged with maintainable revenue through low interest loans. Additionally, Central Bank of Nigeria (2017) describes micro financing as the provision of financial services to the economically active poor and low-income households through selfless services such as credit, savings, micro-leasing, micro-insurance and payment transfer, to enable them to engage in income generating activities (Quansah, Amankwah, and Aikins, 2012).

Subsequently, Murray (2015) indicates that micro financing is remark as a mechanism for triggering or sustaining social and economic development by supporting entrepreneurial activities. Prasad, Sunitha, and Sunitha (2015) stress that micro financing enables the poor and excluded section of the people including the SMEs who do not have an access to formal banking to build assets, diversity livelihood options and increase income, and also reduce their vulnerability to economic stress. Kolawole (2013) affirms that micro financing helps to generate savings in the economy, attract foreign donor agencies, encourage entrepreneurship and catalyse development in the economy. Idowu (2010) expresses that micro financing has make positive contributions to SMEs growth and granting of loans towards promoting their market share, product innovation, achieving market excellence and the overall economic competitive advantage.

According to Osuji (2017a), microfinance institutions have been in the forefront of the drive towards economic growth and financial empowerment of the many less privilege citizens of our country which have passion for entrepreneurship business. Alli (2016), says that microfinance is an instrument to reduce or obliterate wide resource gaps among people including the active poor which could be traced to the rising inequality. Microfinance institutions empower SMEs through short-term finance and saving products, thus, helping to provide a start-up capital for productive business activities and increasing their contribution to the Gross Domestic Product (GDP) of the nation (Abdul, Shadiullah, and Sana-ur-Rehman, 2015; Small and Medium Scale Enterprises Development Agency, SMEDAN, 2012). Micro financing enables SMEs owners to protect, diversify and increase their incomes, as well as to accumulate assets, reducing their vulnerability to income and consumption shocks (Kibet, Achesa, and Omwono, 2015). Micro financing is described to be one of the prime strategies for achieving Millennium Development Goals (MDGs), particularly targets that relate to small and medium scale enterprises (SMEs) growth, poverty eradication, gender equality and the empowerment of the disadvantaged groups (Afolabi and Oni, 2012).

### **Theoretical Review/Framework**

The study is anchored on the banks capital channel theory because of its adequacy in explaining the relation between the research variables.



### Bank Capital Channel Theory

This model remarked that the lending behaviour of banks to SMEs is heavily dependent on capital adequacy requirement. Obamuyi (2007), showed that a change in interest rate can influence banks' lending to SMEs through bank's capital. This implies that increasing the value of interest rates raises the cost of banks' external funding but reduces banks' profits and capital. The tendency is for the banks to reduce their supply of loans if the capital constraint becomes binding. On the other hand, the banks could also become more willing to lend during situations when the interest rate is favourable. The sudden intervention of the Federal government of Nigeria and Central Bank in making provisions for the increase access to loanable loans with low and extended payable period is to cushion against the pandemic shock and prevent the high interest rates the commercial banks would have impose on the SMEs in spite of the downturn in global economic.

### Methodology

The study adopted descriptive survey research design with a study population of thirteen thousand four hundred and fifty seven which comprises of the total registered SMEs in both Lagos and Ogun state according to SMEDAN 2013 survey. Primary and secondary data are utilized as the research instruments to solicit responses and data while Linkert five point rating scales measurement was used to test the degree of agreement and disagreement with the research questions. Taro Yamane's sampling size determination was used while stratified and proportionate sampling techniques was adopted to determine the exact sample size that structured questionnaire will be administered to in Lagos and Ogun state without bias and misappropriation. Statistical Package for Social Sciences (SPSS) version 21 and Ordinary Least Square Regression (OLS) statistical techniques are use to ascertain the relationship between the independent and dependent variables. The population of the study covers the entire small and medium enterprises business operators in both Lagos and Ogun States. According to SMEDAN (2013) the total number of small and medium enterprises (SMEs) in Ogun State is 1,794. While the total number of small and medium scale enterprises in Lagos State is 11,663.

**Table 1.**

States	Total SMEs	Percentage of SMEs	Sample size
Lagos	11,663	13 %	348
Ogun	1,794	87%	52
Total	13, 457	100%	400

**Source:** SMEDAN (2013)

### Sample Size Determination

$$\text{Sample size (n)} = \frac{N}{1+N(e^2)}$$

1= Constant Significant error of 5% (0.05%) was applied  
 N=13, 457

$$\text{Sample size (n)} = \frac{N}{1+N(e^2)} = \frac{13, 457}{1+13, 457(0.05^2)}$$

$$n = \frac{13, 457}{13, 458 \times 0.0025}$$

$$n = \frac{13, 457}{33.645} = 399.97 = 400$$

Total Sample size (n) for both Lagos and Ogun States SMEs = 400

Proportionate sample size determination for Ogun State is: 400 x 13% = 52 sample size. Hence, 52 questionnaires will be administered to selected SMEs operators and microfinance owners in Ijebu-Ode Local Government Area. Proportionate sample distribution for Lagos State is: 400 x 87% = 348 sample size. Hence, 348 questionnaires will be administered to selected SMEs operators and microfinance owners in Ikeja LGA. The choice of the sample areas is because they are regarded as the commercial hub for both states.

### Model Formulation:

$$\text{SMEGf} = \alpha_0 + \beta_1 \text{IR} + \mu \dots \dots \dots (i)$$

### Method of Data Analysis / Analytical Techniques

The study utilized Statistical Package for Social Sciences (SPSS) 21.0 software and Ordinary Least Square Regression (OLS) statistical techniques are use to ascertain the relationship between the independent and dependent variables.

### Analysis of Findings

#### Demographic Data

This section considers the peculiarity of each respondent in terms of age, sex, occupation; marital status. The frequency and percentage are given below.

**Table 2: Demographic Data**

<b>Sex</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Male	191	47.8
Female	209	52.3
<b>Total</b>	<b>400</b>	<b>100.0</b>
<b>Age</b>		
18-25 Years	77	19.2
26-35 Years	151	37.8
36-45 Years	99	24.8
Above 46 Years	73	18.2
<b>Total</b>	<b>400</b>	<b>100.0</b>
<b>Marital Status</b>		
Single	157	39.3
Married	243	60.7
<b>Total</b>	<b>400</b>	<b>100.0</b>
<b>Educational Background</b>		
School Cert/WAEC/NECO	165	41.3
ND/NCE	72	18.0
BSC/HND	127	32.7
MSC/MA/MBA	12	3.0
Others	24	6.0
<b>Total</b>	<b>400</b>	<b>100.0</b>
<b>Types Of Business Enterprise</b>		
Agric/Agro Processing	99	24.8
Manufacturing	66	16.5
Construction	28	7.0
Trade/Services	207	51.7
<b>Total</b>	<b>400</b>	<b>100</b>
<b>Ownership Structure</b>		
	<b>Frequency</b>	<b>Percentage (%)</b>
Sole owner	208	52.0
Partnership	69	17.3
Family business	96	24.0
Others	27	6.7
<b>Total</b>	<b>400</b>	<b>100</b>
<b>Sources of Finance</b>		
Self-financing	156	39
Borrowing or credit	103	25.8
Banks loan	87	21.7
Gifts and grants	54	13.5
<b>Total</b>	<b>400</b>	<b>100</b>

**Source:** Field Survey (2020)

The above table 2 shows the descriptive statistics of the respondent demographic data. Among the respondents, 52.3% are female which implies that more than average of the respondents in this study are women and are more involved in small scale business in the study area. It was also discovered that most of the respondents are between the ages of 26-35 with a percentage

of 37.8%, 19.2% falls between 18-25 years; while 18.2% are above 45 years. Furthermore, 39.3% of the respondents are single, 60.7% are married while in terms of the educational qualification of the respondents, 41.3% possess only secondary school certificate; 18% were privileged to obtain ND/NCE, 37.2% have BSc/HND degree while a small proportion 3% have second degree and a large number of the respondents (6%) had other educational qualifications. It is evident that the business owners sampled on the average are literate and has acquired basic education. It is also evident that most of the respondents are into trade and provision of services (51.7%); while only about 7% are into construction. Similarly, 52% are sole proprietors; 24% are family businesses; 17.3% are partnership firms, suggesting that most of the SMEs sampled are owned by sole individuals. It was also gathered that 39% of the SMEs sampled fund their business operations themselves; 25.7% take credit and borrow from individuals and cooperative societies; 21.7% also obtain funds from banks in form of loans while about 13.5% fund their business from money gathered from gifts and grants. This implies that most of the SMEs sampled are self-financing.

**Table 3:** Analysis of Questions Relating to Interest Rate

	INTEREST RATE	SA	A	U	D	SD
1	Interest rates charged by microfinance banks are relatively high and unsustainable for most firms	178(44.5%)	187(46.75%)	2(0.5%)	12(3%)	21(5.25%)
2	High interest rates discourage many firms from approaching microfinance banks for credit facilities	99(24.75%)	178(44.5%)	16(4%)	30(5.25%)	77(19.25%)
3	There are unrealistic credit processing costs and charges	167(41.75%)	183(45.75%)	17(4.35%)	21(5.25%)	29(7.25%)
4	High interest rate imposes extra investment risks	189(47.25%)	148(37%)	7(1.75%)	27(6.75%)	29(7.25%)
5	Short repayment period less than three years affect the firm growth	201(50.25%)	167(41.75%)	2(.5%)	10(2.5%)	20(5%)
6	Exorbitant interest rate causes declining firm growth	154(38.5%)	189(47.25%)	17(4.25%)	26(6.5%)	14(3.5%)

**Source:** Field Survey, 2020

The questions relating to interest rate was analyzed and presented in Table 3. It was revealed that 46.7% agreed that interest rates charged by microfinance banks are relatively high and unsustainable for most firms while 24.75% strongly agreed that high interest rates discourage many firms from approaching microfinance banks for credit facilities, 19.25% strongly disagreed to it.

Similarly, 41.7% strongly agree that there are unrealistic credit processing costs and charges; 37% agreed to it, while 6.75% disagreed. It was also noticed that 50.2% and 41.7% strongly agreed and agreed that short repayment period less than three years affect the firm growth respectively. It was also discovered that 38.5% strongly agreed that exorbitant interest rate causes declining firm growth while 6.5% disagreed; 3.5% strongly disagreed.

**Table 4:** Analysis of Questions Relating to SMEs Growth

	<b>GROWTH</b>	<b>SA</b>	<b>A</b>	<b>U</b>	<b>D</b>	<b>SD</b>
1.	There has been increasing sales revenue	199(49.7%)	147(36.7%)	5(1.25%)	15(3.7%)	34(8.5%)
2.	The staff strengths has been on the increase	160(40%)	104(26%)	3(0.7%)	56(14%)	77(19.2%)
3.	Cost of financing and production has reduced	188(47%)	191(47.7%)	5(1.25%)	7(1.7%)	9(2.2%)
4.	The firm has over time reduced its total asset	14(3.5%)	26(6%)	17(4.2%)	189(47.2%)	154(38.5%)
5.	Sales performance has improves	60(15%)	26(6%)	4(1%)	201(50.2%)	109(27.2%)
6.	The customer base percentage has been on the increase over time	99(24.7%)	178(44.5%)	16(4%)	77(19.2%)	30(7.5%)

It was further revealed that 36.75% agreed that the sales revenue of the firm has been on the increase while only 3.75% disagreed to it. Also, 40% strongly that there has been increase in staff over the years; while 14% respondents disagreed to this fact. This suggests that administration cost may be on the increase and that as the firm expand its operations, it became necessary to increase the number of staff in the organization.

Similarly, 47.75% and 47% agreed and strongly agreed that the cost of financing and production has reduced while 2.25% strongly disagreed to this fact. While 47.25% disagreed that the firm has over time reduced its total asset, 38.5% strongly disagreed to this. Also, 50.25% disagreed that Sales volume has been dwindle while 27.25% strongly disagreed. It was also observed that 24.75% of the respondents strongly agreed that the firm customer base has been on the increase over time, 44.5% agreed; 4% were undecided; 19.25% disagreed and 7.5% strongly disagreed. This implies the firms sampled have increased sales, staff, total assets and customer base and the cost of financing and production has reduced overtime

### Hypothesis Testing

**Table 5:** Effect of Interest Rate on SMEs Growth

<b>Dependent Variable: BP</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
<b>C</b>	0.459664	0.261104	13.25015	0.0000
<b>IR</b>	-0.127894	0.081423	-1.570731	0.0175
<b>R<sup>2</sup></b>	0.4322			
<b>Adjusted R<sup>2</sup></b>	0.1242			
<b>F-statistic</b>	2.467196			
<b>Prob(F-statistic)</b>	0.017471			

**Source:** SPSS & Regression analysis (2020)

The hypothesis was analysed to investigate the effect of interest rate on SMEs growth in Lagos and Ogun States, Nigeria using regression analysis as shown in the above table 5. The findings revealed that the constant of the model is positive and significant at 1%. On the other hand, the coefficient of interest rate (IR) revealed that a negative relationship exists between interest rate and SMEs growth, suggesting that an increase in interest rate will bring about a decrease in SMEs growth.

Furthermore, the r-squared shows that about 43.2% of the changes in SMEs growth were as result of interest rate charged by financial institutions. This suggests that charging high interest rate may bring about decrease in SMEs growth, which can be as a result of inability of SMEs to repay the principal and interest on the loan obtained. However, the F-statistics shows that the result is statistically significant at 5%. This means that in the study area, entrepreneur opportunity recognition is weak but significant in explaining the level of SMEs growth in Nigeria; hence, this study accepts the null hypothesis.

### **Discussion of Findings**

From the foregoing, it is evident that interest rate has a significant negative effect on SMEs growth in Nigeria, suggesting that an increase in interest rate will bring about a decrease in SMEs growth in Nigeria. The finding of this study agrees with the findings of (Ferdousi, 2015; Sharma and Gounder, 2012) but conflicts with the finding of Niskanen and Niskanen (2007), which stated that positive relationship, exist between lending rate and growth. However, support the findings of this study as they recorded a negative relationship between lending rate and small business growth. However, Ofeimun, Omogbai and Izeke, (2018), Obadeyi (2015), Olowe, Moradeyo and Babalola (2013), findings are in consonance with this study.

### **Contributions to Knowledge and Recommendations**

This study added to existing knowledge on the effect of micro-finance interest rate on small and medium enterprises (SMEs) growth in Nigeria. The study also utilized primary data as the main research instrument as compared to most of the past studies that adopted secondary data. The study establish that high interest rate serves as inhibitor to SMEs growth and recommends a moderate and enterprises friendly interest rate by micro finance banks in Nigeria to boost further SMEs growth. More so, there is need for access to finance without stringent collateral requirements particularly at this COVID-19 pandemic period.



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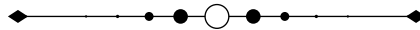
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## Statistical Treatment of Student-Teacher Ratio as a Measure of Academic Performance in Mathematics for African Development

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### Abstract

Over the years, perennial problem of classroom congestion, poverty level and low classroom utilization rates in Nigeria worsen the teaching and learning of Mathematics. This paper investigates the student-teacher ratio as yardstick for students' performance in Mathematics in Junior Secondary School Certificate Examination (JSSCE). The enrolment of students, the numbers of teachers, together with students' performances in Mathematics were sampled from four schools for a period of four years. Two of the schools have an average student-teacher ratio of (50:1), with performance average of (33% - 45%) and standard deviation (11.21); while the other two have average student-teacher ratio of (18:1) with performance average of (60% - 77%) and standard deviation of (8.43). Some statistical tools like standard deviation and T-test were used to test the Null hypothesis. At significant level (0.05) and degree of freedom (14), the t-value was 0.0000517, while the p-value was 0.999922. The results of the findings show that there was significant difference in student-teacher ratio and their performance in Mathematics, and invariably, may be among the factors that account for the credible performance accounted for in the private secondary schools as against their public counterpart. The result suggested that more teachers should be hired in order to decrease the number of students per teacher so that students' achievement can be enhanced and hence, brings about National Development.

**Keywords:** *Student-teacher ratio, Students' academic performance, National Development*

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### **Background to the Study**

In most countries of the world, the pride of institutions of learning depends not just on the quantity but more importantly on the quality of the product at all levels. However, policy makers in some developing countries are to target the quality of education performance as an immediate priority. In particular, cognizance is being taken of the argument that the provision of student and teacher of high quality should be given top priority and that ultimately, the success of any educational system depends largely on the quality of the teacher (Dave, 2008).

Most of the governments of the world spend a significant amount of their budget on resource inputs in the education sector. They make decisions about providing resource inputs to enhance student achievement and performance. Moreover, not all these decisions are easy to take; especially in the third world countries where mismanagement makes the problem more adverse. To reduce the scope for mistakes, the true picture of the determinants of education outcome is desirable. Resource inputs have a vital role in the education process. Student achievement at any point is a cumulative function of the current and the prior resource inputs such as family, peers' effect and institutional resource inputs. However, all these factors are outside the direct control of an educationist. Therefore, an educationist directly deals with and controls the school specific resource inputs.

The poor funding of education in most third world countries does not enable the school system to have manageable class sizes, adequate student classroom space and appropriate class utilization rates. In spite of the fact that these factors determine the productivity of teachers and students' academic performance, governments do not show adequate concern about the deterioration in the standard of education in the countries (Kezar, 2006).

Every formal education setting involves students-teacher relationship. The nomenclature of the teacher depends on the model of interaction. According to Davis (2002), teachers can be described as a tutor if he gives private lessons to one student or a small group and he is directly paid by them. He is called a director (rector) if he gives instruction to the learners on how to go about the learning process. He is described as a monitor if he observes how the student is learning, and he is called a supervisor if he oversees the students learning activity. The nature of the subject also has a part to play in determining the effect of the teacher-student ratio. If the subject is basically theoretical; or basically practical or both; the ratio will not be the same in all the cases.

Over the years, perennial problem of classroom congestion, poverty level and low classroom utilization rates in Nigeria worsen the situation of education. Education in the country is poorly funded, hence most of the public schools' experience classroom congestion, low students-classroom-space and low classroom utilization rates; hence these situations may likely affect students' academic performance adversely. The large number of students passing through the system in Nigeria is a serious problem, particularly with the state government's inability to provide adequate furnished equipment. The few schools that have enough teaching staff, at times have low classroom utilization rates, perhaps because of poor supervision. This situation does not favor academic learning (Dave, 2008).

Students' achievement in any teaching and learning situation is very important. Unfortunately, students' performance in secondary schools in Nigeria has not been very encouraging as consistently highlighted by the moderators and chief Examiners reports and WAEC and NECO results for past decade. Academic achievement is one of the leading goals and big challenge for an educational system.

According to Cuban (2004), class-size and student-teacher ratio has a great impact on the quality of education and academic success of students. There is no doubt that pupil-teacher ratio and per-student outgoings are some of the important resource inputs for any academic institution. Lesser the ratio of student and teacher in the class better is the probability of improving the quality of education and accomplishing the academic goals of institutions. Quality of education is very crucial for strategic planning of academic goals and tag along with the pace of developed world. However, the problem at stake is whether student-teacher ratio has any implication for the quality of education.

Taft, Perkowski and Martin (2011), found out that, there is a clear and strong relationship between class size, student-teacher ratio and students' achievement. Also that, students learned more in small classes. They further revealed that, the major benefit of reducing class size occurred where the number of students in the class was fewer than 20. Finally, they concluded that small classes were superior in terms of students' reactions, teachers' morale and quality of the instructional environment.

Based on the foregoing, there is a need to examine the factors that affect academic performance of students. Among some to the factors of academic performance according to various researchers include teaching methods (Ahmed and Abimbola, 2011), use of instructional materials (Adalikwu and Iorkpilgh, 2012), socio-economic background, family support, intellectual aptitude of student, personality of student, self-confidence, and previous instructional quality have been found to also influence students' performance (Dunkin and Biddle (2004) to mention just a few. This paper is aimed at examining the effect of student-teacher ratio on students' academic performance in Junior Secondary Schools in Kwami Local Government Area of Gombe state; which invariably lead to National Development.

### **Theoretical Framework**

This study will be based on system theory. A general system concept is a functional analysis of all the sub-units interacting and interrelating to function as a whole system. It is a functional analysis of sub-systems which seeks to explain the character of the system as a whole. Synergy is one of the aspects of system concept; it is a collective effort that is more than a single effort. The expression of synergistic function connotes a derive demand function where its sub-units of the system is dependent on one another to function.

A system is any ordered interrelated set of things and their attributes, linked by flow of energy and matter, as distinct from the surrounding environment outside the system. The elements within a system may be arranged in a series or interwoven with one another. A system comprised any number of subsystems (Yoon and Kuchinke 2005). Within Earth's systems, both matter and energy are stored and retrieved, and energy is transformed from one type to

another. Specifically, the systematic approach to school as a formal organization sees the organization as a purposeful system composed of interactive parts, rather than dealing separately, the approach gives the administrators the opportunities to look at the various components of the organization in a large external environment working together towards a predefined objectives. Therefore, system theory is the best to describe the school as a formal organization via student-teacher relationship.

### **Studies on Students-Teachers Ratio**

Class factors are very important in the teaching-learning activities, particularly when students' academic performance is being considered. Class size is an important factor in relation to academic performance of students. There is a consensus among various researchers and educationists that, the lower the class size or teacher-students' ratio, since students' achievement decreases as class size increases. Kezar (2006) described student-teacher ratio as a tool that can be used to measure performance of the education system. A lot of argument has occurred on the impact of 21st century student-teacher ratio on students' performance, The National policy on Education (2004) recommended that the teacher-students ratio should be 1:30. In emphasizing the importance of class size to the learning/teaching process, the All Nigeria Conference of Principals of Secondary Schools (ANCOPSS, 2002) recommended a maximum of forty students per class for effective management and better control.

A recent study by Addonizio and Phelps (2000), reported that there is positive relationship between certain variables such as class size, teacher-student ratio, students factors and performance in examination. They were discovered to be factors that have direct influence on academic performance of schools. Schools with larger class size and high teachers-students ratio recorded poor performance while better academic performance is associated with schools with small size and lower teacher-students ratio. This was supported by (Duflo, Dupas, and Kremer 2007). Other studies like Blatchford, Goldstein, and Mortimore (1998), Cooper (1998), Bozzomo and Rouse (2001), confirm that there was no relationship between the size of the class and the results.

### **The Influence of Student-Teacher Ratio on Quality of Learning**

According to Akinsolu (2010), it is very easy for teachers to evaluate, educate and get positive feedback if class-size is small and number of students in class is very less. Most of the experts consider that lower student-teacher ratio or "student teacher ratio" give better upshots in contrast to higher student-teacher ratio. In many cases, higher student-teacher ratio outcome brings in high score. In general, student-teacher ratio plays a decisive role in augmenting the quality of education. Actual class-size may be quite larger than the pupil-teacher ratio due to absenteeism and specialism of teachers.

### **Purpose of the Study**

The problem of poor performance is apparently assuming a dimension that could affect the entire situation in the country. Nevertheless, there are many factors that affect student achievement, but the purpose of this paper is to explore and analyze the effects of student-teacher ratio as well as student-teacher interaction dynamics at the secondary school level as a determinant of students' academic achievement.

The paper is meant to:

1. Identify student enrolment and numbers of teachers for calculating student teacher ratios and class sizes.
2. Identify the relationship (association) between the independent variables i.e. student teacher ratio and class size, and the dependent variable academic achievement.
3. Find out whether student-teacher ratio influences Junior Secondary School Students' Performance in Kwami Local Government Area of Gombe State.
4. Identify some guiding principles towards optimal learning outcome which can bring about National Development.

### **Research Questions**

This research will provide answers to the following questions:

- (i) What is the number of students enrolled and number of teachers in the selected Junior Secondary Schools in Kwami Local Government Area?
- (ii) Is there any relationship (association) between the independent variable i.e, student-teacher ratio and class size, and the dependent variable academic achievement?
- (iii) To what extent does student-teacher ratio and class size influence Junior Secondary Students academic performance in Kwami Local Government Area of Gombe State?
- (iii) What are the alleviating measures for combating the problems identified in this study?

### **Research Hypothesis**

In order to identify the variables and to accomplish the purpose of this study, the following hypotheses were postulated in null form for the purpose of this study:

- $H_{01}$ - There is no significant difference in performance of students in schools with low students-teacher ratio and students in schools with high students' teacher ratio.
- $H_{02}$ - There is significant difference in performance of students in schools with low students-teacher ratio and students in schools with high students' teacher ratio.

### **Research Methodology**

#### **Research Design**

This study is theoretical because it involves the collection of secondary data from exams records of the selected schools for analysis in the research.

#### **Population of the study**

The population of the study comprised of all Junior Secondary School students in public schools in Kwami Local Government Area of Gombe State. There are 28 public Junior Secondary Schools in Kwami Local Government. (Gombe State Ministry of Education, 2019).

#### **Sample and Sampling Technique**

This study makes use of intact class so as to assess the influence of student-teacher ratio on students' academic performance in Kwami Local Government Area of Gombe state.

### Research Instrument

The data was collected directly from the exams records of the selected schools based on the needs of the research.

### Method of Data Collection

The method of data collection in this study will involve the gathering of information and data through both primary and secondary sources. The primary data are gathered from the inventory/intact class, and the secondary data are derived from the JSCE results.

### Procedure for Data Analysis

The findings of this research were analyzed quantitatively using t-test analysis. Also, the responses obtained from the oral interview conducted was subjected to the appropriate statistical test to provide answers to the research questions and to test the research hypotheses in order to investigate the relationship between students-teacher ratio and students' academic performance.

### Data Analysis and Interpretation of Result

The results obtained from the field work of the study are displayed. The information was gathered through secondary data (JSCE results) and oral interview conducted for the teachers and students in the selected secondary schools. The results of the schools were gotten from the school's records which contained the detailed result of 2015 to 2018, and the results were analyzed.

### Data Presentation and Discussion

**Research Question 1:** What is the number of students enrolled and number of teachers in the selected Junior Secondary Schools in Kwami Local Government Area?

**Table 1:** A table showing students' enrolment (JSS 1 to JSS 3) and staff strength in each sample schools for the year 2018

Schools	Number of Students Enrolled	Number of Teachers in the School	Students – Teacher Ratio
A	995	35	57:1
B	225	15	15:1
C	378	18	21:1
D	759	15	51:1

The enrolment of student and staff strength in each sample schools are presented in table 1 above. It reveals that school A has 995 students and 35 teachers with 57:1 student - teacher ratio, school B has 225 students and 15 teachers with 15:1 students-teachers ratio, school C has 378 students and 18 teachers with 21:1 student's teacher ratio; and school D has 759 students and 15 teachers with 51:1 students teacher ratio.

**Table 2:** A table showing students' enrolment (JSS 1 to JSS 3) and staff strength in each sample schools for the year 2017

Schools	Number of Students Enrolled	Number of Teachers in the School	Students – Teacher Ratio
A	899	35	54:1
B	234	15	15:1
C	365	18	21:1
D	760	15	51:1

The enrolment of student and staff strength in each sample schools are presented in table 2 above. It reveals that school A has 899 students and 35 teachers with 54:1 students - teachers ratio, school B has 234 students and 15 teachers with 15:1 students teacher ratio, school C has 355 students and 18 teachers with 21:1 students teacher ratio; and school D has 760 students and 15 teachers with 51:1 students teacher ratio.

**Table 3:** A table showing students' enrolment (JSS 1 to JSS 3) and staff strength in each sample schools for the year 2016

Schools	Number of Students Enrolled	Number of Teachers in the School	Students – Teacher Ratio
A	897	35	54:1
B	228	15	15:1
C	349	18	21:1
D	762	15	52:1

The enrolment of student and staff strength in each sample schools are presented in table 3 above. It reveals that school A has 897 students and 35 teachers with 54:1 students' teacher ratio, school B has 228 students and 15 teachers with 15:1 student-teacher ratio, school C has 349 students and 18 teachers with 21:1 student - teacher ratio; and school D has 762 students and 15 teachers with 52:1 student-teacher ratio.

**Table 4:** A table showing students' enrolment (JSS 1 to JSS 3) and staff strength in each sample schools for the year 2015

Schools	Number of Students Enrolled	Number of Teachers in the School	Students – Teacher Ratio
A	884	35	52:1
B	222	15	15:1
C	339	18	21:1
D	695	16	50:1

The enrolment of student and staff strength in each sample schools for the year 2015 is presented in table 4 above. It reveals that school A has 884 students and 33 teachers with 52:1 students' teacher ratio, school B has 222 students and 15 teachers with 15:1 student - teacher ratio, school C has 339 students and 18 teachers with 21:1 student - teacher ratio; and school D has 695 students and 15 teachers with 50:1 student - teacher ratio.



**Analysis of JSCE Result of the Schools from 2015- 2018****Table 5:** Analysis of Result of School A

Year	No of Candidates	No of A – C Scores	% of A - C	No of D - F	% of D - F	% Total
2015	98	31	31.63	67	68.37	100
2016	111	31	27.93	80	72.07	100
2017	130	38	29.23	92	70.77	100
2018	126	58	46.03	68	53.97	100

Table 5 above shows that 98 students sat for Junior School Certificate Examination in school A in the year 2015, out of which 31 students representing (31.6%) of the students scored between Credit and Distinction, while 67 students representing (68.4%) of the students scored below credit passes and fails. In 2016, 111 students sat for the JSCE, out of which 31 students (i.e 27.9%) of the students scored between Credit and Distinction, while 80 students representing (72.1%) of the students scored below credit passes fails. In 2017, 130 students sat for the JSCE, out of which 38 students (29.2%) of the students scored between Credit and Distinction, while 92 students representing (70.8%) of the students scored below credit passes and fails.

Also, 126 students sat for 2018 JSCE, out of which 58 students (46.0%) of the students scored between Credit and Distinction, while 68 students representing (54.0%) of the students scored below credit passes and fails. However, this implies that the number of students that failed is more than those that scored between credits and distinctions in all the years.

**Table 6:** Analysis of Result of School B

Year	No of Candidates	No of A – C Scores	% of A - C	No of D - F	% of D - F	% Total
2015	85	49	57.65	36	42.35	100
2016	75	42	56.00	33	44.00	100
2017	78	48	61.54	30	38.46	100
2018	89	58	65.17	31	34.83	100

Table 6 above shows that 85 students sat for Junior School Certificate Examination in school B in the year 2015, out of which 49 students representing (57.6%) of the students scored between Credit and Distinction, while 36 students representing (42.4%) of the students scored below credit passes and fails. In 2016, 75 students sat for the JSCE, out of which 42 students (i.e 56%) of the students scored between Credit and Distinction, while 33 students representing (44%) of the students scored below credit passes fails. In 2017, 78 students sat for the JSCE, out of which 48 students (61.5%) of the students scored between Credit and Distinction, while 30 students representing (38.5%) of the students scored below credit passes and fails.

Again, 89 students sat for 2018 JSCE, out of which 58 students (65.2%) of the students scored between Credit and Distinction, while 31 students representing (34.8%) of the students scored below credit passes and fails. This implies that the number of students that passed with good grades is more than those that scored below credit in all the years.

**Table 7:** Analysis of Result of School C

Year	No of Candidates	No of A – C Scores	% of A - C	No of D - F	% of D - F	% Total
2015	65	46	70.77	19	29.23	100
2016	62	42	67.74	20	32.26	100
2017	59	48	81.36	11	18.64	100
2018	66	58	87.88	8	12.12	100

Table 7 above shows that 65 students sat for Junior School Certificate Examination in school C in the year 2015, out of which 46 students representing (70.8%) of the students scored between Credit and Distinction, while 19 students representing (29.2%) of the students scored below credit passes and fails. In 2016, 62 students sat for the JSCE, out of which 42 students (i.e.67.7%) of the students scored between Credit and Distinction, while 20 students representing (32.3%) of the students scored below credit passes fails. In 2017, 59 students sat for the JSCE, out of which 48 students (81.4%) of the students scored between Credit and Distinction, while 11 students representing (18.6%) of the students scored below credit passes and fails.

More-so, 66 students sat for 2018 JSCE, out of which 58 students (87.9%) of the students scored between Credit and Distinction, while 8 students representing (12.1%) of the students scored below credit passes and fails. This implies that the number of students that passed with good grades is by far more than those that scored below credit in all the years.

**Table 8:** Analysis of Result of School D

Year	No of Candidates	No of A – C Scores	% of A - C	No of D - F	% of D - F	% Total
2015	120	51	42.50	69	57.50	100
2016	127	53	41.73	74	58.23	100
2017	129	60	46.51	69	53.49	100
2018	99	48	48.48	51	51.52	100

Table 8 above shows that 120 students sat for Junior School Certificate Examination in school D in the year 2015, out of which 51 students representing (42.5%) of the students scored between Credit and Distinction, while 69 students representing (57.5%) of the students scored below credit passes and fails. In 2016, 127 students sat for the JSCE, out of which 53 students (i.e.41.7%) of the students scored between Credit and Distinction, while 74 students representing (58.3%) of the students scored below credit passes fails. In 2017, 129 students sat for the JSCE, out of which 60 students (46.5%) of the students scored between Credit and Distinction, while 69 students representing (53.5%) of the students scored below credit passes and fails.

Finally, 99 students sat for 2018 JSCE, out of which 48 students (i.e. 48.5%) of the students scored between Credit and Distinction, while 51 students representing (51.5%) of the students scored below credit passes and fails. This implies that the number of students that failed is more than those that scored below credit in all the years.

**Table 9:** Mean and Standard Deviation Analysis of Percentage of A to C grades of school B & C and A & D

Group	N	Mean	S.D	Mean Diff
A – C Grades of School B & C	8	68.512	11.21	29.2560
A – C Grades of School A & D	8	39.256	8.344	

**Significant Level at 0.05**

Table 9 above revealed that the percentage of A to C grades of school B and C has a mean score of 68.51, while the percentage of A to C grades of school A and D has a mean score of 39.26. The difference in percentage mean score is 29.26. This indicates that the schools B and C performed better than schools A and D in the JSCE. To establish if the difference is statistically significant or not, some statistical tools like standard deviation and T-test were used to test the Null hypothesis.

**Table 10:** T-Test Analysis of Percentage of A to C grades of school B & C and A & D

Group	N	Mean	S.D	df	t	P
A – C Grades of School B & C	8	68.5125	11.213	14	0.0000517	0.999922
A – C Grades of School A & D	8	39.2565	8.3438			

**Significant Level at 0.05**

From Table 10 above, the result showed that p-value is 0.999922 which is greater than the alpha value (significant level) of 0.05 at degree of freedom (df)14. Since the p-value is greater than the alpha value, it indicates that there is a significant difference. Therefore, the null hypothesis  $H_{01}$ , which states that there is no significant difference in performance of students in schools with low students-teacher ratio and students in schools with high students' teacher ratio is rejected. Hence, the alternative hypothesis  $H_{02}$  which states that there is significant difference in performance of students in schools with low students-teacher ratio and students in schools with high students' teacher ratio is accepted.

### Discussion of Findings

Based on the data above, it is evident that student teacher ratio may be among the factors that account for the credible performance accounted for in the private secondary schools against their public counterpart. No wonder, The National Policy on Education (2004) stated that student teacher-ratio should be put at 30:1, and this policy was backed up by UNESCO Policy on education to meet international practices. Following the results of various researches relating to students-teacher ratio we can easily conclude that reducing the class size is not cost effective, but it brings about quality teaching and learning.

Academic improvement is better and more effectively achieved through improving the teacher training and increasing academic rigor in the classroom as teachers' effectiveness is one of the major determinant of student academic performance. However, for the school system to have manageable class sizes, adequate student classroom space and appropriate class utilization rates, the role of both government and non-governmental organization in funding the system is a necessity. Since these factors determine the productivity of teachers and students' academic performance.

### **Conclusion**

The study shows that a class with low student-teacher ratio is the most beneficial setting for a classroom. Therefore, educators and school administrators can focus on finding ways to minimize the student-teacher ratio and look for methods of encouraging both teachers and students towards effective teaching and optimal learning.

### **Recommendations**

Based on the findings of this study, the following recommendations are hereby suggested:

1. There is no doubt that the smaller the student-teacher ratio, the better the educational quality of both high and low intelligent schools. Those in charge of this arrangement should endeavor to scale down the number of students per class by employing more high quality teachers.
2. The teachers and the students should be properly motivated for optimum productivity.
3. Efforts should be made to improve the intellectual ability of the not-so-gifted students by teaching them at their own pace and being patient with them.
4. The practice of separating the low from the high performing students should be discouraged as that creates room for the feelings of inferiority and superiority complexes amongst them which is unhealthy. Mixing them promotes the spirit of healthy competition as the low achievers will feel challenged to struggle harder to meet up with their class mates.
5. Teachers in schools that practice separation should know that the low performers need extra attention from them instead of shying away from entering their classes or paying good attention to help them improve.
6. Counseling services should be given to the low performers from time to time to encourage them not to lose hope but work harder to perform better.

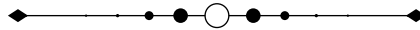
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## The Impact of ICT in Marketing Library Services in Academic Library

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### Abstract

In order to promote utilizing the available resource made in any library information has to be taken to the door step of a clientele a such information and communication technology will serve as a catalyst in doing that. This paper has explored the role of information and communication technology ICT in academia and as well as the strategies used in propagating the available services in an academic library this is because tailor made information it is highly required so as to avoid wasting the precious time of academicians and this can be only achieving with the help of information and communication technology software, therefore, descriptive method was adopted in the methodology of this study.

**Keywords:** *ICT, Marketing, Library Services, Academic Library*

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### **Background to the Study**

Information and communication technology (ICT) has remained a catalyst in the issue of national advancement and development. Information as power is effectively an infinite resource and a vital tool needed for the development of all sectors in any nation. It is therefore, imperative that application in library would go a long way in satisfying the information need to the citizens. It is worthy of note. That the emergence of ICT has impacted greatly on the quality of information provided through library. It also enable proper and adequate provision of library services to library users from all disciplines. In this 21<sup>st</sup>, the drastic role of ICT in library operations cannot be over emphasized. Many library routines and operations that were initially performed manually are now being converted to computerised operations which means, applications of ICT techniques to provide better and faster services to end the users. A nation without functional libraries and information centres may lack access to information that would enable for sustainable development. In this era of globalization, in which the world is connected, information gains its power through permanent storage and wide distribution, which could be achieved through ICT.

According to (Janakiraman, Ormsby, and Subramanian, 2016), the world now experiences a digital scenario in which ICT has changed the possibilities of the library job promotions and has brought changes to expected library performances. ICT is genetic terms that refers to the technologies that are used to collect, store, edit and communicate information in various format (Raji, 2018). The use of ICT improves access to digital information, narrow down the digital device and also improves standard of living. Adoption of ICT in library is a way of improving on information services provided in library. This is an era, when people need to access timely information with ease, and this can only be done through the application of ICT to library services. It is also a way of contributing to the sustainable development of the nation, since timely and effective provision of useful information can assist in building up a society ICT as an enabling tool, assist library in provision of information, which is very paramount to the development of the various sectors in the nation. Library is playing a very important role facilitating access to global information and knowledge resources using ICT. The use of computers has been steadily increasing in science and technology since the 2<sup>nd</sup> world war. Most of the advance countries of the world have made much advance in this respect but Nigeria has just made a start, especially in industry and business and there also these are witnessing stiff opposition from the employees and their trade because of the fear of retrenchment. However, their application is increasing day by day in science. Technology, industry and business, Library is no exception to them. As the library authorities and librarians are being aware of their potential users, that are being more use. It is hoped that by their use. Library would increase in the years to come in. thought not at a rapid speed, especially because of our socio-economic conditions and the prohibitive of their installation and maintenance.

### **Objectives of the Study**

1. To identify the role of information and communications technology ICTs in marketing library service in academic library.
2. To examine the contribution of information and communication technology to the growth of academic library.

3. To know if information and communication technology is enhancing efficiency in academic library.

### **Significance of the Study**

1. This study is expected to provide a basic for comprehensive information on information and communication technology in marketing and application in the academic library.
2. The study will established the existing gaps in the adoption of information and communication technology (ICT) in the operations activities of academic library.
3. The output of this study will serve as a blueprint for informant, researchers, lecturers or facilitators, students, and the professional to chart the right course of an action for the use of information and communication technology in promoting the delivery of marketing library services in academic library. In the electronic information age we all need to learn how to use efficiently and effectively the huge variety of information and communication technology for information search, discovery, organising, investigation and assessment. Information knowledge technologies are changing and becoming more complicated day by day and librarians need to approve them for providing better services to their users. Now we see the changes in the role of library and librarians in education due to ICT.

### **Scope and Limitation of the Study**

Having made a feasibility on the research topic, and in order to save time, resources and to have more accurate and reliable data, the research will focus on the role of information and communication technology ICT in marketing library services in academic library. The argument has always been that. With the help of ICT academic library 'can be viewed as information systems that both reflect and influence, and even help to create, paradigms and authority, for their limit in various ways on the ideas and information available for users' due to a process called transparency, in which an entity is taken for granted and not well understood, to context and institutional structures of academic library is for most part explore only in the library literature by librarian historians.

### **Related Literature Review**

The concept of ICT is useful in numerous instances to facilitate the developments of various aspects of the society, Mansell and When, (1998), examine some of these concepts; public administration is the key aspect of civil society and include a range of services to citizens and industry. It provides various functions that enhance the social, economic and political developments of the citizenry. Most importantly, it provides public information that is useful to the country at large. ICTs facilitate the public administration activities. For instance, e-Government, a concept that defines situation where government activities and public information can be made available using ICTs in South Africa the government has expressed the intention of transforming itself into an e-government where information can be accessed at any time with phone or with internet, public internet kiosks provided for universal access. The kiosks are called the public information terminals and there are 300 public information terminals (PIT) installed at post offices around the country. The South African ministry of communication notes that; the public information terminal PIT, entails the installation of

internet kiosks in post offices around the world. The kiosks will provide instant access to internet, e-mail, e-government and e-educational services as well as e-commerce. For example, the link to the government website will provide information on aspects of regulations, legislation, welfares, supports and grants. Interactive directories of various tertiary institution will also available. PIT is a practical example of how ICT can be use in public administration. The advent of new ICTs brought a lot of new assumptions about radical changes in our society. In the context of arrival of the new society public administration is supposed to witness and to address or implement, changes at different levels, such as citizenship (citizens becoming participants in governance or even shift to e-democracy). Apparently, ICTs are indispensable tools needed for provision of value added information that support the sustainable development. Although, many institutions and organisations including libraries face diverse challenges in the process of integrating ICTs to their services. Nevertheless, information provision is paramount to development and growth of any nation. It is therefore, that important effort is made to enable usability of ICTs and library services in all sectors of the nation. The advent of ICT is indeed a boost to the library services as it now assists many librarians to use their ICT potentials to reach out the library users. (Yusuf & Iwu-James, 2010) defines some of the ICT base services that are provided .by the libraries are as follows:

1. Provision of web access to OPAC: Libraries are providing access to web-based Online Public Access Catalogue (OPAC) interface. The OPAC makes it easier for users to access and use information resources. OPAC is the computer form of library catalogue to access materials in the library (Afolabi and Abidoye)
2. Electronic Document Delivery: Libraries implement ICT based interlibrary lending system, through the use of electronic networks for document delivery. In essence, the Document Delivery Service (DDS) enables a library to use copies of research papers or other research document, from other libraries. These documents could be journal article or other documents in digital format. They are mainly in portable document format (PDF) and they delivered to library users' desktops.
3. Online instruction/ user education: there is implementation of online based bibliographic or library user progammes such as online tutorials on searching online resources and virtual tours of library collections. Libraries can also use internet or CD ROMS to educate users.
4. Online reader's advisory services: libraries now implement web-based versions of readers advisory services to include informing users about new acquisitions, provide reviews and recommendations and so on in using the web.
5. Networked information resources: libraries now provide users with access to networked information such as database, electronic scholarly journals and other publications from various publishers. The services rendered in a library differ from one library to another, depending on the type of library, the type of patrons and the parent body's objectives. Other library services as highlighted by Idowu (2011) include:
  - i. Reference service
  - ii. Current awareness services (CAS)
  - iii. Selective dissemination of information (SDI)
  - iv. Reprographic services

- v. Exhibition and display
  - vi. Technical services
  - vii. Serials control
  - viii. Computerized interactive search and
  - ix. Borrowing, renewing and reserving
6. Reprographic technology: these are widely used in libraries globally. Reprographic machines are provided in libraries to ease photocopying of documents on demand
  7. Library retrieval system: this involves the use of compact disc read only memory, a technological mechanism for acquisition of specialized CD-ROM databases in various discipline such as Law, Science Medicine, Technology, Agriculture, Humanities and so on.
  8. Indexing and abstracting service: it is a service that is carried out to provide summaries of documents and also to assign descriptors for referencing documents.

### **Summary**

The main focus of this study was to determine the role of information and communication technology in marketing library services in academic libraries to achieve the objectives of this study. This is in line with Janakiraman and Subramaniam (2016), where they said the world now experience a digital scenario in which ICT has changed the possibilities of the library job promotion and has brought changes to expected library performances. ICT is a generic term that refers to the technologies that used to collect, store, edit and communicate information in various format (Raji, 2008). The use of ICT improves access to digital information, narrows down the digital divide and also improves standard of living. Adoption of ICT in libraries is a way of improving on information services provided in libraries. This is an era when people need to access timely information with ease, and this can only be done through the application of ICT to library services. It is also a way of contributing to sustainable development of the nation, since timely and effective provision of useful information can assist in building up society ICT as an enabling tool, assist libraries provision of information, which is very paramount to development of the various sectors in a nation. Libraries are playing role in facilitating access to global information and knowledge resources, using ICT.

### **Conclusion**

In conclusion the advent of ICT has not only changed the way of service provision but rather it changed with the profession as ascertain by Etim (2004), the rapid pace of development in the field of information technology and the emergence of network information services have prompted a comprehensive review information science profession. While the developed countries are far in front, the developing countries including Nigeria is still far behind with much more work to revolutionize the academic libraries in Nigeria. In Nigeria, the academic libraries are said to be at a crossroad due to the fact that they are operating in an era of dwindling financial resources that are not forthcoming and this affects the effectiveness of their functions. The libraries especially the academic libraries have need to adopt the environment in line with the indications of Kumar (2009) if they are remaining relevant. Academic libraries are now expected to provide to users a range of information quickly from both immediate and remote databases, as well as creating a need for library cooperation and consortium initiatives (Okiy, 2005).

## **Recommendations**

Based on the conclusion of this study, the following recommendation have to be made:

1. Government will need to pay attention to education by improving her commitment in education. The academic libraries are special libraries found in educational institutions and whose main purpose is to the special purpose of serving the special needs of the specialized or homogenous clientele, this is because library is the backbone of any institutions
2. The need for the periodic training for librarians and other library staff must be overemphasised in academic libraries. This is because with the advent of ICT has brought about digital library, which changed the nature as well as the profile of the librarians and information professionals bringing about new demands and expectations both from library users and librarians (Adebayo and Adekunjo, 2013)
3. Government need to help in contributing information communication technology to the growth of libraries so as to enhanced greater access to information and communication.
4. Librarians need to use capacitated strategies to provide services through e-resources in physical as well as remote location forms in accepting information and communication technology in academic library. In fact, the present paradigm shift in academic library services since the twenty-first century is an indication of its metamorphic advancement that begins many years ago.
5. For Nigerian academic libraries to meet the expectations of the planned vision of the of the library, information and communication technology need to be enhanced efficiently in academic libraries. The shift was indispensable because for the academic library to be where their users are, they have to fully recognize the fact that the world is living in virtual realities as it was indicated by (Omekwu and I., 2008) where library services will be in the web and not affected by opening and closing hours. Users of academic libraries now expect to be given what they need, when they need it and from which ever location they may be (Ajogboye, 2010)



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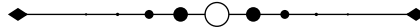
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## **New Partnership for African Development and Poverty Reduction in Nigeria, 2009 - 2019**

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### **Abstract**

**D**evelopment strategies are judged by results. Over the years, Africa's political leadership adopted and pursued various development initiatives to translate the immense natural resources of the continent into prosperity for the benefits of her teeming population. Unfortunately, the outcomes of these efforts have been abysmal. This study assessed the achievement of the New Partnership for African Development (NEPAD) in curtailing poverty in Nigeria from 1999-2015. The paper adopted the theory of the postcolonial state of Africa to explain the increasing rate of poverty in Nigeria, despite the NEPAD poverty reduction ambition. The study is anchored on documentary methods of data collection. The paper concludes that genuine poverty reduction can only be realized when Nigeria political leadership sincerely invests in her human resources in terms of genuine empowerment of the populace through skill acquisition.

**Keywords:** *New Partnership, African Development, Poverty Reduction, Skill Acquisition, Nigeria.*

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## **Introduction**

NEPAD is acronym for New Partnership for African Development. The New Partnership for Africa's Development (NEPAD) was launched in 2001 as an African-owned and African-driven strategic framework for socio-economic development of the African continent. NEPAD strategy sees the need for reviewing the existing relationship between Africa and the developed world in addressing issue of poverty, underdevelopment and marginalization of the continent. Prior to 23rd October, 2001 after the steering committee and experts finalized the NEPAD policy framework, there were other Action plans that would enhance the economic fortune of Africa, including the Revised Framework of Principles for the Implementation of the New International Economic Order in Africa (1975-1977); the Monrovia Strategy (1979); Lagos Plan of Action (1980), Structural Adjustment Programme (SAP); the African Alternative Framework to the Structural Adjustment programme for Socio-Economic Recovery (1990); the Africa Charter for Popular participation for Development (see <http://www.nigeria.business>. The Conference on Security, Development and Cooperation in Africa (CSSDCA); Global Coalition to Attract Financial and Economic Assistance to Africa; the 20/20 initiative; Copenhagen Social Summit Framework; The Highly Indebted Poor Countries initiative; The poverty reduction strategy papers (PRSP); among others. Nonetheless, these strategies failed to turn around the living condition of the African people generally and Nigerian people in particular.

The failure of the past development frameworks to engender positive and sustainable development, informed the decision of African leaders to introduce the New Partnership for Africa Development. The objective of this paper is to ascertain whether NEPAD has achieved one of its cardinal objectives of poverty reduction in Nigeria. The study relied on documentary method of data collection such as textbooks, journals, internet materials etc.

## **Theoretical Perspective**

Immense writings on African development and poverty reduction exist. Most of these are predicated on liberal and neo-liberal persuasions. Existing scholarship, which derive its foundation from the frameworks tend to predicate development models on the modernization paradigm. Scholars who subscribe to this, present the global political economy as a natural state, characterized by the 'haves' and the 'have nots'. They conceive development as a global marathon race and hence explain unequal levels of development as arising from natural order of things (Rostow, 1961), (Goulet, 1971). Within this context, these scholars encouraged the underdeveloped states to imbibe imitative attitude; divest themselves of specified internal constraints and to look unto the developed states for their 'salvation'.

This paper adopts the theory of post-colonial state of Africa as espoused by the Marxian scholarship. The Marxists see the state as maintaining an order in which the interest of the ruling class is dominant. Thus, Ake (1985:5) observes that the state is a specific modality of class domination, one in which domination is mediated by commodity exchange so that the system of institutional mechanisms of domination is differentiated and disassociated from the ruling class and even the society appears as an objective force standing alongside society. The state in Africa is crude tool of colonial capital, used to coerce Africans into commodity

relations, to change their pattern of production and prevent the emergence of capitalist African bourgeoisie (Ake, 1985:10). The colonial state was instrumental in synchronizing the colonial state in the economy with that of the metropolitan state. The pervasive role of colonial state in the economy, which was primarily meant to swerve metropolitan capitalism, foreclosed the development of orthodox capitalist culture in the colonies so that capitalist accumulation took the form of using the instrumentality of the apparatus of the state. The state in post-colonial formations which have to do with the level of development of productive forces make the state direct instrument of capital accumulation by the dominant class or its elements (Ekekwe, 1985:12).

In applying this theory to the study, states in Africa are instruments in the hands of political class for personal wealth accumulation to the peril of genuine development of Africa and the people generally. Given the instrumentalist character of post-colonial states in Africa, state managers see the implementation of development programmes as opportunity to enrich themselves materially. Thus, development strategies in Africa and indeed Nigeria can be mirrored as mechanisms presented by the political leadership to becloud the vision of the people and hood-wink them into assimilating false values and internalizing sense of participation, which abstracts from objective reality. It is within the context of this theory that the failure of NEPAD as a framework to reduce poverty in Nigeria after many years of its implementation can be explained.

### **The Concept of Development**

Development has been a contentious issue. Indeed, the concept has generated a great deal of controversy among development theorists and experts. Development is a dialectical phenomenon in which the individual and society interact with their physical, biological, and inter-human environments transforming them for their own betterment and that of humanity at large and being transformed in the process; the lessons learned and experiences acquired in this process are passed on to future generations, enabling them to improve their capacities to make further valuable changes in their inter-human relations and their ability to transform nature (Nnoli, 1981). The contention of this scholar is that development is associated with changes in man and his creative energies. This implies that development is human-oriented and human-generated. That is a continuous improvement in the capacity of the individual and society to control and manipulate the forces of nature as well as themselves for their own benefit and that of humanity at large. Development is therefore a process of actualizing man's inherent capacity to live a better and more rewarding life through increasing skill and capacity to do things, greater freedom, self-confidence, creativity, self-discipline, responsibility and material well being. In a nutshell, development does not represent procurement of artifacts produced abroad and brought into a country. Todaro (1977) conceptualized development as a multidimensional process involving major changes in social structures, popular attitudes and national institutions as well as the acceleration of economic growth, the reduction of inequality and eradication of absolute poverty.

Seers (cited in Todaro 1977) based his perception of development on three basic questions. To him, the questions to ask about a country's development are: What has been happening to

poverty? What has been happening to unemployment? What has been happening to inequality? If all these have declined from high levels, then this has been a period of development for the country concerned. If on the contrary, one or two of these central problems have been getting worse, especially if all three have, it would be strange to call that result development, even if per capita income doubled; and no matter the externally produced manufactured goods available in that society (Onah, 2017:34).

According to Baster (1972), development is a dialectical phenomenon, which is not static but dynamic and therefore assumes a continuous transformation process and a movement towards better and improved conditions, locally and in relation to the international economic order. Development, as Ofuebe (1998), argues, is nothing to be bequeathed by one people to others. Rather, the process has been manifested in the existence of all people from the earliest of times as they have generally made attempts, as Rodney (1972:7) puts it: to increase jointly their capacity for dealing with the environment. This capacity is dependent on the extent to which they understand the law of nature (science), on the extent they put that understanding into practice by devising tools (technology), and on the manner in which work is organized.

Nwosu and Nwankwo (1988), see development as self-reliance in which peoples of a given society are mobilized in order to transform economic and social environments, for their general well-being and those of other humanity. It is a development strategy which relies mainly on a people's ability to bring about self-generating and self-sustaining socio-economic and political system which is problem-searching, problem-learning and problem-solving. Self-reliance as an approach to development cannot be seen in terms of imitating or catching up with developed countries (Ikoku, 1980). From the conceptualization of development above, it is understandable that man is the driver of development. Thus any development framework not centered on the mental or creative energy of man is effort in futility.

### **Origin of New Partnership for African Development**

The New partnership for Africa Development (NEPAD) was established in 2001 to among others, eradicate widespread and severe poverty in the continent. It is based on a firm conscious and shared conviction that African leaders have a pressing duty to eradicate poverty and place their countries, collectively and individually on a path to sustainable human development (Subramony, 2004:1). The framework was seen as a vision and strategic policy for African renewal.

NEPAD resulted in the merger of two development initiatives: the Millennium Partnership for Africa Recovery programme (MAP) and the Omega Plan respectively (Kim, 2003:10). According to Kim, the former South African president, Thabo Mbeki, initiated the Millennium Partnership for African Recovery Programme (MAP) at a conference of ministers of the United Nations Economic Commission for Africa (UNECA). The then Presidents of Algeria and Nigeria supported the drafting of the document. MAP was considered to be former President of South Africa, Thabo Mbeki's initiative, because it was he who sought the advice of western leaders before he presented the document to other African leaders. At about the same time, President Abdoulaye Wade of Senegal launched the Omega Plan which was presented to the French-African summit in January 2001.

Consequently, both African and other western leaders agreed that the two initiatives be merged. The merged plan document was titled the New African Initiative (NAI). This was subsequently adopted at the OAU (now AU) summit in Lusaka on 11<sup>th</sup> July 2001 and endorsed by leaderships of G8 countries on 20<sup>th</sup> July 2001. Thereafter New African Initiative was changed to New Partnership for African Development. One of the major objectives of NEPAD is to eradicate poverty in Africa in the 21<sup>st</sup> century. The main focus of this paper is to ascertain how the NEPAD framework has reduced poverty in Nigeria, 2009 to 2019.

### **Literature Review**

A great deal of literature exists on New Partnership for African Development (NEPAD) as development plan for Africa within the global economy in the 21<sup>st</sup> century. Some scholars described NEPAD as a neoliberal policy of the International Monetary Fund (IMF) and the World Bank. Others described the Partnership plan as agreement of unequal partners which implementation is dependent on the sponsorship of the external superior partner. In other words, African leaders are not the drivers of the development project. Therefore, the saying that he who plays the piper dictates the tune suffices. Deriving from the above, (Tamele, 2001:6), (Adesina, 2003:10), (Bond, 2003:5), (Govendex, 2003:2) argue that NEPAD did not eschew neo-liberal prescriptions, which are essentially, the very policies that constrained past African development strategies. Similarly, The Council for the Development of Social Science Research in Africa and the Third World Network-Africa, maintain that despite NEPAD's claim to be African origin, the content of the plan has inbuilt "neo-liberal economic policy framework", which is an obstacle to the achievement of its poverty reduction objective. Katzenevenbogen and Mvoko (2002) argue that one of the problems of NEPAD is that its drivers had located it within the "Washington Consensus" which is likely to perpetuate and reinforce the subjugation of Africa in the international global system and more effective marginalization of African people. Keet (2002) maintains that NEPAD is a World Bank Programme, which African leaders have undertaken. Robidoux (2002) notes that NEPAD is located within the currently dominant globalised economic system, which leads to ever widening inequality and deepening poverty in Africa and the third world countries, (including Nigeria). Mpande (2003) argues that NEPAD is much concerned with raising external financial resources, relying on external governments and institutions rather than self reliance.

The Church Forum (2001) argues that one of the challenges of NEPAD is that it lacked African consultation and consent and therefore very likely to fail. Tango (2003) Mecojun (2003), report that NEPAD is not free from western imperialism. Nwanolue (2005) argues that NEPAD is a policy instrument masterfully formulated to perpetually render Africa individually and holistically dependent on the west. He contends that NEPAD is an instrument of super-imposition on the continent by few African leaders in collaboration with the countries of the North and the Breton woods institutions like the World Bank, International Monetary Fund (IMF) and World Trade Organization (WTO). Graham (2002), Oredo (2003), view NEPAD as an initiative located within the Washington consensus which is likely to perpetuate and reinforce the subjection of Africa in the global system. Nwanegbo (2005), contends that even though NEPAD may be different in its approach and strategies from previous plans, it is likely to be bedeviled by the same problems that hindered earlier plans.



The character of African states is seen as major obstacle to the success of NEPAD initiative. Omoweh (2002), argue that African states have remained instrumentalist state used by the leadership to consolidate their personal accumulation. He contends that the reason why the founders of the regional agenda are inclined to western liberal democracy is because it enables the political elite to retain power or redistribute power between and among them.

Okolie (2006), argues that a major challenge of NEPAD is the constraints imposed by the hostile international economic and political order within which African economies operate. According to him, African economies are integrated into the global economy as exporters of primary commodities and importers of manufactured products, leading to terms of trade losses. Eze (2004:140) contends that though NEPAD is a partnership that might enable Africans to take up their own destiny; the fundamental problem is NEPAD structure which operates within the globally dominated framework of the World Bank, the World Trade Organization (WTO) and the International Monetary Fund (IMF). He maintains that these are dominant institutions used by the west to deny Africa the right and freedom to achieve real development.

Bukarambe (2004:15) looks at the historical origin of NEPAD and argues that NEPAD's problems and prospects cannot be divorced from those of the initiatives before it. Omoweh (2004:37) argues that the state in Africa is an impediment to the success of NEPAD. Ngwane (2003:12) argues that NEPAD is presented as a programme of partnership, which relationship is lacking in reciprocity and complementarity, which characterizes genuine partnership. Thus, NEPAD acronym has humorously been pronounced "KNEE-PAD" to import Africa's preparedness to remain on their knees or "going cap in hand" while pleading for aid, Orakwe (2002:6) Asante, (2003:3) see NEPAD as a "partnership of unequal groups".

According to Giyose (2003), beset with poverty and adversity, a truly formulated African development strategy must be people centred and poverty- targeted which are visibly lacking in NEPAD initiative. Brutus (2002) contends that NEPAD is a new form of colonization with the consent of Africa leaders. Melber (2002) sees nothing new in NEPAD. According to him, NEPAD in its present form is development plan without the people, which made it no different from the previous continental plans. Gambari (2002:5) argues that a credible and effective strategy for vibrant and robust implementation of NEPAD must begin by moving away from the "begging bowl" and "broken promises" characteristic of African development plans. Chester and Taylor (1999) contend that a strategy of financing must seek to mobilize and build on internal and intra-African resources through imaginative saving measure, reallocation of expenditure away from wasteful items to creative use of remittances of Africans living abroad, corporate taxation, retention and reinvestment of foreign profits, prevention of capital flight.

Indeed, when one examines the processes leading to the formation of NEPAD initiative, one appreciates that the major exponent, President Thabo Mbeki of South Africa attests to its external packaging. His speech to the world economic forum, in Davos in January 2001, was an eloquent testimony that the policy was externally designed and packaged. As Bond (2002:2) remarked, during the formulation of NEPAD, no African trade union, either civil



society, church, political party, parliamentary or other potentially democratic or progressive forces were consulted. In contrast, extensive consultation occurred with the World Bank, IMF in November 2000 and February 2001, transnational corporations at Davos in January 2001 and New York in February 2002; the G8 in Tokyo 2000 and Ganao in July 2001, the European Union in November 2001. There was lack of African civil society participation in the project's origin and implementation. This prompted Emily (2002) to describe NEPAD as "African plan without African society". Thus, Sikawe (2002), stressed that NEPAD is based on development and economic model crafted by the Breton Wood institutions like the World Bank and the International Monetary Fund (IMF) that had been in place for many decades with catastrophic outcomes. The NEPAD policy did not emphasize man as epicenter of development. Reaffirming the indispensability of man as the king-pin for economic, political and socio cultural transformation, the World Bank Report (2000:103) argues that Africa's future lies in its people. According to the report, "African must solve its current human development crisis if it is to claim and assert its authority among committee of nations in the 21st century. The Report concludes that investment in people is becoming more important because Africa's future economic development and growth now depends less on its natural resources and more on its labour skills.

Ofoegbu (1985:57) contends that the assemblage of the inanimate factors of production (raw materials) into a single, coherent and operational production system is a human act, conceived by human genius and realized by human efforts. Okereke and Ekpe (2002:5) see human being as constituting the fulcrum on which development revolves. As Kay (1995), quoted in Okereke and Ekpe (2002:7) succinctly points out that:

*The essence of material production consists of the actions men take upon nature in order to transform natural objects of little use in their original form into condition where they satisfy human needs.*

The development of people's potentials is the epitome of development. Unfortunately, this was not captured in the NEPAD document. This undermines the plan's capacity to put African countries, including Nigeria in the path to development as well as to eradicate poverty. Secondly, the development plan is driven by the West. It is germane to appreciate that NEPAD strategy was fashioned in line with neo-liberal economic framework known as the Washington Consensus (Okolie 2006:264). The initiative was based and steeped in the Western neo-liberalist and neo-imperialist traditions. The proponents conceive development in terms of modernization of rural society and its transformation from traditional isolation to participant integration into world economy. These types of development frameworks had over the years been implemented in Nigeria with catastrophic results.

### **NEPAD and Poverty Reduction in Nigeria**

Over the years, Nigeria has put in place several poverty reduction measures, including the establishment of Operation Feed the Nation (OFN), the Green Revolution, the Directorate of Food, Roads, and Rural Infrastructure (DFRRI), the National Directorate of Employment (NDE), the Peoples' Bank of Nigeria (PBN), the Better Life Programme (BLP) for rural women; a gender specific programme designed to improve the life of rural women, the Family

Support Programme (FSP), the Family Economic Advancement Programme (FEAP), the Poverty Alleviation Programme (PAP), the National Poverty Eradication Programme (NAPEP), the National Economic Empowerment and Development Strategy (NEEDS) the N-Power, among numerous others, in order to stem the tide of increasing poverty in the country.

Similarly, the country had ceded to, and domesticated several continental development plan initiatives including, the Lagos Plan of Action; the United Nation's New Agenda for the Development of Africa; the Africa-Europe Summits' Cairo Plan of Action; the World Bank led Strategic Partnership with Africa; the International Monetary Fund-led Poverty Reduction Strategy Papers (PRSPS), the Japan-led Tokyo Agenda for Action, the African Growth and Opportunity Act (AGOA), the New Partnership for African Development (NEPAD); the Millennium Development Goals (MDGs) among others., which aim was to mitigate the grave effect of poverty in Nigeria. Since the implementation of NEPAD in Nigeria, its major objective of poverty reduction is still far from being realized. For example, Nigeria's poverty rate has continued to escalate to the extent that the Global Finance Magazine, (2019), identified Nigeria as the poverty capital of the world. According to the magazine, the nation exceeded India with the largest rate of people living in extreme poverty. In its recent report, the Nigeria Bureau of Statistics indicated that poverty and inequality in Nigeria stood at 40 percent of the total population or almost 83 million people live below the country's poverty line of N137,430 (\$381.75) per year.

### **Conclusion/Recommendations**

This study has demonstrated the fact that NEPAD is neo-liberal development strategy driven by the World Bank, International Monetary Fund (IMF) and other western capitalist interests. The study observed that NEPAD is guided by the argument that all countries must follow similar path to development along the lines of the western societies. However, NEPAD failed to recognize that different socio-cultural context does not require uniformity of action and policies to succeed. The paper concludes that unless, and until Nigerian political leadership realize the fact that Nigeria can only develop within her cultural imperatives by honestly investing in her population, sustainable development and poverty reduction will be difficult to achieve in Nigeria. The paper recommends that Nigeria's political leadership should not embrace unduly western-induced development policies like NEPAD. This is because a western-induced development policy which NEPAD represents is cosmetic and serves only the interest of the western partners and their local collaborators. Secondly, Nigerian political leaders must cultivate the culture of investing in her human resources through skill acquisition for true development. This is because true development which can engender poverty reduction can only be realized by harnessing local talents.

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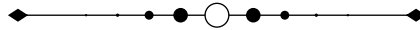
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## **Impact of Promotion on Academic Staff Development in the State Higher Educational Institutions of Borno State**

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### **Abstract**

Promotion may be considered as an employee's reward for good performance or for additional qualifications, that is, positive appraisal which boost individuals' moral and is a mark of recognition. The study explores the Impact of promotion on academic staff development in the State higher educational institutions of Borno State. The study raised one questions to determine: The impact of promotion on academic staff development. Hypotheses was formulated and tested in line with the objectives of the study. Related literatures were reviewed based on the stated objective. Survey method was employed for the study. The population of the study were all academic staffs of the State higher educational institutions (1410). The sample of the study comprised all academic staff from the four selected institutions (938) using closed questionnaires. The collected data was presented by the use of simple frequency and percentages, and later analysed using Chi-square statistical technique. The finding reveals that since 2015-to date the State government offer paper promotion with no monetary increment to salary to academic staff in the state higher education. The study also reveals that there is a significant relationship between promotion and academic staff development. The study concluded that promotion influence academic staff development. It is recommended that the state government should offer the academics the financial benefits of their promotions to boost morale and for effective and efficient performance.

**Keywords:** *Impact, Promotion, Academic staff development.*

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### **Background to the Study**

Promotion when and where ever it happens, it comes with two impressions the monetary aspect and change of position from lower to high in the organizational hierarchy. promotion is aimed at enhancing employee motivation and ultimately these lead to achieving organizational goals, this is to say that when employees are motivated their morale will be boosted and these result to high performance and productivity to a large extent boosting overall organizational performance level. The researcher looks at promotion as a motivator in relation to work behavior and satisfaction, the success of any org depends on its ability to create a conducive working environment where workers needs are taken care of, to boost employee morale for adequate performance. As usual promotions are done in the state every year and letters of promotions are issued to academics, some had two or even three promotion letters with no salary increment, this has been the practice in the state since 2015 to date, in the state higher education. Lack of salary increment after promotion means a lot despite the fact the state is in a very sound economy condition. This type of promotion with no impact on salary has now become a great issue of concerned to the academics in the state.

When employees are motivated, they become more productive, more efficient and willing to work towards the achievement of the organizational objectives than those with a low level of motivation and this is applicable to all organizational settings. Motivational factors including promotions and other non-financial benefits remains the key to the achievements of any organizational objectives. Promotion is one of those essential elements that facilitates the growth and developments of academics in institutions of higher learning or which can be equally termed a “morale booster.” Though we now have new government which is over a year, but still the academics hope for change having seen some good developments on ground.

### **Statement of the Problem**

Despite the fact that promotions are been done every year in all of the State higher educational institutions and promotion letters issued but with no financial benefits, that is to say no increment to salary, this taste like a soup without salt, and this has been of a great concerned to the academics which has a negative impact to the achievement of organizational objectives whenever there is promotion exercise in the state higher education terms like don't mind this type of their promotion or to hell with their promotion has become the common terms used to express dissatisfaction or a sign of frustration. The study explores the impact of promotion on academic staff development in the State higher educational Institutions of Borno State.

### **Objective of the Study**

The study seeks to examine the implementation of the financial benefits of promotions to academic staff in the State high educational institutions.

### **Research Questions**

Does academic staff enjoy the implementation of financial benefits of promotions in the State higher educational institutions?

### **Hypothesis**

The study is guided by one research hypothesis:

- H<sub>0</sub>.** There no significant relationship between promotion and academic staff development in the state higher educational institutions.

### **Literature Review and Theoretical Framework**

Promotion is an increase of a labor or employee at a field a better job, compared with the previous of the responsibility is greater, achievement, higher status, demands proficiency is higher, and the addition of wages or salaries as well as other allowances Fathoni, (2006). According to Gupta (2011) promotion refers to a higher post carrying greater responsibilities, higher status, and better salary. It is the upward movement of an employee in the organization's hierarchy. According to Sikula (2018) technically a promotion is a move in one position to another that involves both wages and status increases. According to Ardana et. al (2018) stressed that promotion is the move from one position to another which has a higher status and responsibility. Promotion according to Wikipedia.org "is the advancement of an employee's rank or position in an organizational hierarchy system". Mustaffa and Kamis (2007), assert that the most attractive reward perceived by the staff and that promotion will improve the staff objective and performance. Turk (2008) upholds that a good and well-functioning performance appraisal system would help the educators to make their mark in the organizational setting of their faculty.

Almost all higher educational institutions in Nigeria have adopted same procedures and criteria for promotion of academic staff. A call for promotion is usually done by the registrar of institutions to all departments to submit the names of those eligible for promotions, recommendation for promotion comes from heads of departments and deans then to promotion committee whose secretary is the registrar of the institution and headed by the head of the institution these can be Rector/Provost/V.C if finally approved then a letter of promotion will be issued to the individual lecturer concerned. The state institution of higher learning has adopted same procedure and criteria which is used nationwide in the promotion of its academic staff which is centred on three areas that is research, teaching, and service.

### **Criteria for the Promotion of Academic Staff in the State Higher Educational Institutions**

- i. Loyalty to the institution and display of good character.
- ii. Certificate of conference presentation.
- iii. Effective teaching, service to the College
- iv. Progress or reports of research undertakings
- v. Publications in recognised journals
- vi. Seminar papers based on research;
- vii. Chapters in books relevant to the candidate's discipline;

A great damage has been done by the state government with non- implementation of the financial benefits of academic staff promotions in the state higher education. According to Java (2021) the state government offered paper promotion only with no monetary increment to salary since 2015. The state government has directly or indirectly killed the morale of

academic staff. According to Nwachukwu (2004), any organization that fails to provide a conducive work environment, compensate its workforce adequately, create room for proper training and career advancement is at risk of having a demotivated workforce. Any organization that ignores the needs of its employees will not achieve its objectives. Organizational success always rests on employees' commitments. According to Armstrong (2008), stressed that de-motivated employees exhibit signs of low morale, this can have destructive implications in the organization. In line with this view Snell (1999) also gave sign of de-motivation to include absenteeism, frequent lateness of arrival at work, poor performance, to name a few, are the results of de-motivated staff members in the workplace. The academics dissatisfaction and below performance always count on student's performance this point is stressed by Asiyai (2013), opined that the poor-quality delivery is responsible for the abysmal low performance of graduates of institutions of higher learning in Nigeria in their world of work and the alarming incidence of examination malpractice. Whenever there is promotion exercise in the state terms like 'don't mind them with their type of promotions'. or terms like 'to hell with their promotions' has become the common terms of the day and these are open signs of dissatisfaction or frustration. Unsatisfied employees with low morale cannot contribute meaningfully to the organizational development. A promotion that lacks its financial benefits, is of less importance, if any. This has to do with the type of bad policies adopted by the state government which doesn't favour its development. According to Onah (2008), without an adequate, skilled and well-motivated workforce operating within a sound human resource management program, development is not possible, and this is in line with the argument put forward by Budhwar and Debrah (2001), who revealed that many developing countries face unintentional barriers in the way of development due to outdated and unproductive human resource management (HRM) systems.

For achievements of any organizational objectives' creation of a conducive working environment is a necessity where employee's problems are look into and are addressed to boost employee's morale for adequate performance and maintenance of standard. Provisions of promotion to employees along with other benefits generate sense of belonging and cooperation in the organization and these will boost performance and prevent turnover.

However, some scholars have offered some actions to be taken to save organizations from having problems with their employees. According to Armstrong (2008), who stated that in order to curb these and other problems that can escalate into more serious crises in the organization, de-motivation should be detected early and necessary actions taken, these may include counseling of de-motivated employees, clearly explaining their 3 roles, responsibilities and rewards and ensuring their expectations match those of the organization.

Promotion leads to job satisfaction, job satisfaction leads to high performance, high performance leads to maintenance of quality and standard, therefore promotion is one of the key factors for the achievement of any organizational goals. Muchinsky (2005), stressed that Pay satisfaction leads to desirable behavior value, increases employee effort and decreases absenteeism and turnover. When employees are motivated, they remain part of the organization contributing to any length as the organization demands. According to Danish

(2010), contends that human resources are the most important among all the resources an organization owns. To retain efficient and experienced workforce is very crucial on overall performance of an organization. Motivated employees can help make an organization competitively more value added and profitable. No human can work in an unfavourable environments. Haghighi (2005) also concur that human resources are vital for organizational excellence and they act as the main factor for achieving anticipated organizational objectives. Employees motivation remains the key to success particularly promotion it gives not only financial but psychological satisfaction.

According to Prasad (2010) Staff promotion with full remuneration will boost academic staff morale and this will help rescue the fallen quality of our graduates will push teachers to adopt a kind of students centre learning concentrating on making students understand better. Upon all motivating factors money leads, therefore withholding promotion increment to salary kills morale much more than other factors of motivation because money plays a great role in the satisfaction of employee needs. This point was supported by Kreitner and Kinicki (2006), who stated that Provision of compensation is something that must be considered seriously because the financial rewards are among the factors that resulted in employee satisfaction. The provision of financial and non- financial benefits keeps the employees highly motivated. Frey and Osterlob (2002), also stressed that maintaining highly motivated employees is a strategic move to keep employees committed to working hard and ultimately contributing their optimal capability towards achieving the organization's goals. Academics can perform better only and if the management creates a good working condition. Academics are the source of all developments. This was stressed by Peretomode (2007), higher education is the facilitator, the bed rock, the power house and the driving force for the strong socio-economic, political, cultural, healthier and industrial development of a nation. Based on these facts higher educational institutions need to be given a priority not only on promotion but also training, office and housing accommodation, salary and recruitment of well deserving individuals to boost qualitative performance.

### **Human Relation Theory**

Leaving academics with paper promotions without its financial benefits is inhuman, we need to generate sense of human feeling for employees and for achievement of organizational objectives, in view of this the researcher adopted human relation theory to guide the study which was founded by Elton Mayo (1935-1950) an Australian interested in employee motivation and commitment and the relationship between workers and management. Human relation theorist are concern with people, workers of the organization, worker's feelings, interest, opinions, creativity, cognition and emotion of workers. In accordance to the theory, the management of higher educational institutions should always leave their doors open to receive, act and share the problems of academics because problems of academics may count on Students performances. The state government or the managements of higher education should ensure that problems related to academic staff promotions are addressed for qualitative performance and to close the communication gap with the academics and looked into other related problems to get their morale booster for effective performance of their primary duties and for maintenance of quality and standard because according to Mayo (1945) better

communication enhances employee motivation and performance. Academics are always prepared to work well if their problems are looked into or addressed. Human relation theory calls on employers to take up the problems of their employees and find an appropriate solution to it through good communication for the achievement of organizational objectives. The concept of Human Relations is generally defined as the capacity to interact and work well. One of the management principles of human relation theory is for the employers not only to show concerned but to work hard to overcome the problems of their employees. Promotion will boost their morale not only that but also increasing their freedom and responsibility as their capabilities enlarge.

Workplace relationships provide a source of employee motivation, which is important to maintaining productivity. George Elton Mayo, examined the effects of social relation, motivation and employee satisfaction on productivity. Offering paper promotion without its monetary benefits cannot go well as the employees have social and physiological needs to be handled by the money offered. Human relations theorists always advocates that managers should learn that employee's social needs were no less important than employees' economic needs and that the logic of cost efficiency should give some room to the logic of human sentiments

According to Mayo (1945) there is a good leader behind every successful task, and tool of every successful leader is good human relationship. An environment with healthy human relation will always remain prosperous, because all necessary measures has been taken to see to its success and all progress retarding factors eliminated. Workplace relationships provide a source of employee motivation, which is important to maintaining productivity. Creating the opportunity for professional development, establishing a communication line, showing them affection and sharing their concern will help boost their morale in any organizational settings, and this helps to achieve the organizational objectives. According to Mayo (1945) a successful manager listens to his employees, introduces them to their new companions, and tries to get them congenial work associates. Academics are the source of all knowledge and are the backbone of all sort of development denying them monetary part of their promotion kills morale and these can have negative impact on performance. Human relation theory believes that higher productivity could be gained by good communication and emotional connection between workers and management.

The primary objectives of any higher institution of learning is to have qualitative graduates which was stressed by Cashmore et. al (2009) state that the central aim of higher education institutions must be to provide high quality, inspiring teaching in order to enhance the student experience and the high-level graduate outcomes to which an excellent experience leads. According to Pekkola (2015) stated that higher educational institutions can be seen as engines for development. For example, a vehicle with sound engine can go to any length likewise a higher institution with trained and promoted academics in a conducive working environment can to any length of development, if well supported or can perform far beyond expectation. This can only be achieved only by having a good academic staff development programs. According to Asiyai and Oghuvbu (2009) who reported that lack of academic staff



development programmes accounted for the decline in quality of tertiary education in Nigeria, Academic staff development programme which include promotion and training.

Muchinsky (2005), Pay satisfaction leads to desirable behavior value, increases employee effort and decreases absenteeism and turnover. Clark et al, (2001) stressed that more satisfied workers are less likely to leave their employer. In any favourable working environment the employees remain motivated and satisfied. In line with this view Prasad (2012) stated that job satisfaction affects job performance, employee turnover, and low absenteeism. High job satisfaction results in high work performance, less employee turnover and less absenteeism. Employees need to be satisfied for organizational goal to be achieved. According to Campbell (2007) motivation involves aligning employee goals and values with the organization's mission and vision in order to create and maintain high levels of performance.

Development of a good human relation and satisfaction of employees is what keeps any organization going. According to Vineet et.al. (2013) stated that Good relationships with managers helps in promoting commitment, high morale and confidence in the organization. It lays emphasis on performance, stability, growth and advancement of employees for improving an organization's competitive edge.

### **Empirical Review**

Based on research conducted by Khan, Farooq, and Khan (2010) in Kohat, Pakistan to analyze the role of reward in motivating employees of commercial banks. The study aimed to identify the impact of payment, promotion, benefits, and recognition of employee motivation. The sample of study consist of 67 male and female employees of the commercial banks of Kohat, Pakistan. The research finding showed that promotion among most the important variables has the greatest effect on employee work motivation.

Geoffrey (2010), conducted a study which investigated public universities academic staff performance with reference to the context of motivation using Makerere University in Uganda as a case study. It examined effect of motivational factors on lecturers, teaching, research activities, and community service. The findings revealed that, motivational factors i.e. promotion, training, significantly affected lecturers teaching and research activities at Makerere University. A study by Victoria (2014) from Ghana assessed the promotional satisfaction among the workers of Cocoa Marketing Company Limited and found out that majority of staff were somewhat dissatisfied on the implementation of the promotion policy.

Taylor and Vest (1992), investigated the effect of financial incentives and its removal on worker's performance and productivity; it revealed that participants in the experimental group who received personal inducements performed better than those in the control group.

In research conducted by Winda (2015), The Influence of Compensation, Job Promotion, and Job Satisfaction on Employee Performance found that job promotion has a positive and significant influence on employee performance. According to Virginia (2015), found that job promotion influences performance. According to Suharni (2017), found that the promotion of position has a positive and significant influence on performance.



Chen et al (2006) in his study that aimed to evaluate employees' dissatisfaction based on various elements. The main factors that influenced the teacher job satisfaction were; work environment, pay and benefits, management systems, result feedback and motivation, respect and organization vision<sup>1</sup>. The results showed that, academics interest and attention and was on high salaries and fair promotion systems. Olofu and Ironbar (2017) advocates the need to train employees. According to item “Training provides recognition, enhanced responsibility and possibility of increased pay and promotion” (Olofu and Ironbar, 2017).

### Methodology

In this section, survey method and purposive sampling technique were adopted, a sample of each group needed from different area were taken for fair representation. The data collected were analyzed using simple inferential statistic converted to a frequency distribution and percentages involving the use of chi-square formula. A total number of nine hundred and thirty-eight (938) academic staff taken as sample out of one thousand four hundred and ten (1410) which constitute the entire population of academics in the nine State higher educational institutions as at February 2018 when the study was being conducted. The advantage of purposive sampling technique is that it ensured a fair representation of the target population and also enabled the researcher to gather data from respondents in all the Colleges under the study. In Borno state almost all State higher education were located within the State capital except three Waka-Biu college of education, Umar Ibrahim Ibn Elkanemi college education Bama, and Konduga College of Business and administrative studies even the latter is still considered as part of central district.

**Table 1:** Population and Sample of Academic staff of higher Educational Institutions of Borno State

Coll. Selected	Geo-pol. Zone	Academic staff pop.	Percent % Sample
Umar Ibrahim Ibn Ibrahim El-kanemi Coll. Of educ. Sc.& tech. Bama	Central	104	21
Waka-Biu College of Education.	South	120	24
Ramat polytechnic, Maid.	Central	447	89
Muhammad Goni college. Of legal & Islamic studies	Central	267	53
<b>TOTAL</b>		<b>938</b>	<b>174</b>

**Source:** Field survey 2018

### Data Analysis

Data collected in the field were carefully analysed using simple percentage and Chi-square statistical tool to draw relevant inferences and conclusion

**Table 2:** Distribution of respondents' opinion on impact of promotion on academic staff development

Statement	A	SA	U	D	SD	TOTAL
Academic staff enjoy the implementations of promotion benefits in the state higher education			84(30.7)	80(29.2)	110(40.1)	274(100)

**Source:** Field Survey 2018

### Discussion of Results

Items in the table reveal that 84(30.7) undecided, 80(29.2) disagreed, and 110(40.1) strongly disagree. None of the respondents nor strongly agreed that academic enjoy the implementation of their promotion benefits. This indicate that the majority of the respondents 110 or 40.1% have strongly disagreed with the statement that academic staff enjoy the implementation of promotion benefits in the State higher education.

**Question:** Academic staff in the state higher education enjoy the immediate implementation of promotion benefits.

### H<sub>0</sub>-Hypothesis

There is no significant relationship between promotion and academic staff development in the state higher education.

**Table 3:** Showing chi-square test for relationship

	Value	d	Asymp.sig(2-sided)
Chi-square	5.81	2	0.000
Likelihood ratio	3.09	2	0.000
Linear by linear Association	2.01	1	0.000
N of valid cases	274		

### Finding

The result of Chi-square test conducted to assess the relationship between promotion and academic staff development. A Chi-square test value of 5.81 at 2 degree of freedom is significant at  $p = 0.000$  that is  $p > 0.05$ . This indicates that there is significant relation between promotion and academic staff development. Therefore, null hypothesis is rejected. The study indicate that the state government does not pay the promotion benefits of academic staff in the state higher education and this has a significant impact on academic staff development in state higher educational institutions of Borno state.

Santhapparaj and Alam (2005) found that promotion has a positive and significant effect on job satisfaction. Promotion may be an employee's reward for good performance or for additional qualifications, that is, positive appraisal. In research conducted Septiani (2015), found that job promotion influences performance. According to Suharni (2017), found that the promotion of position has a positive and significant influence on performance. Tessema and Soeters (2006), concluded that there is a positive association between promotion practices and employee performance. Shahzad et al., (2008) have suggested that "there is a positive relationship of promotion practices with the university teachers" performance. Compensation or pay is linked with general satisfaction and more closely linked with pay satisfaction (Lumley et.al, 2011).

### **Recommendations**

1. The State Government to allocate more funds to the education sector to the settle the promotion benefits of academic staff in the state higher education.
2. The state government should adopt policies that favour its development and give adequate attention to academic staff development programmes which include training, salary office and housing accommodations and recruitment of qualified academic staff for maintenance of quality and standard in the state higher education
3. The state government/managements of higher educational institutions should always leave their doors open to receive, act and share the problems of academics as human relation theory demands.

### **Conclusion**

The study concluded that lack of investment into the educational sector for the provision of all promotion benefits for academic staff in the state higher education for the maintenance of quality and standard will affect the brighter future of the state developments, and will force the academics to search for alternative work place instead of remaining to build the State.

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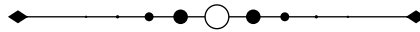
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## Comparing E-Print and Fedora Digital Library Software E-Print or Fedora??? A Better Open-Source Repository Platform for Libraries

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### Abstract

Judicious system analysis is essential in considering budget allocations to libraries. This paper studies two open-source digital library software namely E-print and Fedora, the present study compares and highlights the similarities among the software. The paper attempts to suggest based on the merits and demerits to enable librarians to take wiser decision in terms of open sources software for a repository.

**Keywords:** *ICT, Opens sources software, Digital library, E-print and Fedora*

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## **Introduction**

With the advent of information communication technology (ICT), method of accessing information in library has totally change from coming to physical library building to remote access with the help of different digital library software available both commercial and open-source software. Digital library in the word of (Smith 1997), defined digital libraries as “controlled collections of information bearing objects (IBOs) that are in digital form and that may be organized, accessed, evaluated and used by means of heterogeneous and extensible set of distributed services that are supported by digital technology”. Another definition by (Oppenheim and Smithson 1999) define digital library as “an information service in which all the information resources are available in computerized form and functions of acquisitions, storage, preservation, retrieval, access and display are carried out through the use of digital technologies. Over few decades, different digital library open-source software evolved such as Dspace, Greenstone, Keystone, Fedora, E-print etc. The paper will try to talk on similarities and differences of e-print and fedora digital library software. Open-source software is computer software that license has granted to the user to download freely, customized, as well as modification, e-print and fedora are all open-source software that enable a library to build their collection with free or less cost.

## **Objective of the Study**

The study is aim to explore similarities and differences between two open-source digital library software.

## **The Evolution of E-Print and Fedora Open-Source Digital Library Software**

**E-print-** was created in 2000 as an outcome of Santa Fe meeting that held in New Mexico in 1999 which is the first meeting on open archives initiative. E-print is open-source software that was widely accepted by the most libraries which lead to the development of much digital library software. In 24 of January 2007 at Open repositories 2007 conference version 3 of e-print was released and the latest version 3.4.2 was released on 17/07/2020. E-print is open-source software that is released under GPL license and it is written in a Perl language.

**Fedora:** Fedora is a robust, modular, open-source repository system for the management and dissemination of digital content. It is especially suited for digital libraries and archives, both for access and preservation. It is also used to provide specialized access to very large and complex digital collections of historic and cultural materials as well as scientific data. Fedora has a worldwide installed user base that includes academic and cultural heritage organizations, universities, research institutions, university libraries, national libraries, and government agencies. In 1997 Sandy Payette and Carl Lagoze created original Flexible Extensible Digital Object Repository Architecture (FEDORA) at Cornell University and it was released first to the public in 2010 as open-source software as version 1 and the latest version is 5.0.2 that was also released in 14 February 2019.

**Table 1: Features of E-Print and Fedora**

Features	E-Print	Fedora
Operating system	Comfortable with Linux, but it can also run on window, Solaris	Its works with Unix or Linux and other OS not Window
Database	MySQL or PosgreSQL	MySQL or PosgreSQL
Server	Apache web 2.0 and above	Apache web 2.0 and above
Programming language	Java and Perl	Java and PHP
User interface	User interface is friendly in such a way that is providing different search facilities, such as browsing in hierarchical subject, restrict search by title author, date etc	Its provide to end user search environment it simple keyword search and advanced searching
Meta data support	Meta data fields are user define. The meta data file is stored in the database ie MySQL whereas the digital content is stored in the file system	Metadata and digital content are both considered data streams of the digital object. Data streams can be stored (a) internally on the digital object XML file, (b) on file system as managed content or (c) on an external Source. One or more metadata sets can be concurrently used, while different file formats can be stored as separate data streams in a digital object. Basic technical metadata are stored for each data stream like MIME type, file size and checksums, ensuring content preservation. Fedora supports versioning of specified Data streams, allowing user to access older data stream instances
Multiple language support	e-print support multiple language	Yes support multiple language
Collection and relation	e-print has no any collection definition all the document or digital object are been organized base on specific fields and the relation can be only defined through URL	Fedora supports collections using RELS-EXT data stream that contains basic relationship ontology. In this data stream the relationships between digital objects are expressed using RDF. Fedora does not provide a mechanism to manipulate these relations
Interoperability	E-print support interoperability OIA-PMH in order to share data with some other digital library, it's also support data export with METS and MPHEG-21.	Fedora also support OIA-PMH and METS XML file to export data.
Customization level	E-prints can be customized and localized at different levels, it enables administrators to change Look and feel (branding), adding new metadata fields, new document types, views, browse and search options. This can be achieved through web interface provided for administrator or by editing source files and reloading entire configuration	It is also fully customizable
Access control	e-print enable registered user to edit the digital object with the help of log in mechanism that is username and password	It supports users and groups authorized for accessing specific digital objects using XACML policies. Authentication is provided through LDAP or for specific IP addresses
Object management	A default web user interface is provided for the creation and editing of objects. Authority records can be used helping the completion of specific fields (e.g. authors, title). Objects can also be imported from text files using multiple formats (METS, DC, MODS, BibTeX, End Note).	Creation of digital objects is feasible using the Administrator client or the batch import utility (XML Files in METS or FOXML format). Metadata addition or editing is provided through a text editor in Administrator client. The same client is used for addition and removal of digital content (as data streams).
Plug in support	e-print support adding some plug in order to extend the functionality of the software which cannot able without the plug in.	Fedora is also supporting plug-in
File format support	Its support MS word, image, PDF, RTF etc	Fedora support multimedia format, like text, audio, video etc

### Similarities among E-Print and Fedora

The following are the similarities among e-print and fedora digital library software:

1. They are all open-source software which is freely available
2. They can all run on Linux or Unix
3. The database use is either MySQL or PosgreSQL
4. They support searching and browsing
5. Multiple language support
6. Interoperability is enable
7. Plug-ins support
8. They support access control
9. Digital object management can be with administration client
10. Multi file format support
11. They can be fully customized

### Differences between E-Print and Fedora

The following can be seen as the differences between e-print and fedora digital library software:

**Table 2:**

e-print	Fedora
Window compatibility	While this not
Metadata is user define	Using Dublin core as metadata standard
Perl programming language is use	PHP programming language is use
Metadata and digital object are stored differently	Metadata and digital object are stored in the same database
Collection of a document and a relation cannot be found	Collection and relation of a document are available here

### Suggestions

With the aforementioned differences we are recommending the usage of e-print than Fedora open source software, because it is Window compatible and also in term of metadata it is user define. Metadata and digital object are stored differently this will help you in mitigating loose of all the data at the same time, e-print also allow you to store the data without any relation consideration or collection.

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